ABSTRACT BOOK

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Real Work in the Virtual World

UNIVERSITY OF TURKU

TCLS Turku Centre for Labour Studies

SWiPE Smart Work in Platform Economy

Finnish Institute of Occupational Health

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K1

CHASING INNOVATION: WORK, VALUE, AND THE COLONIAL PRESENT

Lilly Irani

University of California, US

Innovation has become central to economic policies and moral orders in many places. Champions of innovation work argue that it produces material abundance, economic growth, and cultural progress. In this talk, I examine innovation as a form of work, as an ideology, and as a name for a kind of productivity specific to speculative forms of capitalism. I will argue that innovation projects devalue certain forms of work and knowledge, and by consequence, people. These projects ultimately echo colonial processes at the cutting edge.

K2

THE ONLINE GIG ECONOMY AS A WINDOW ON THE FUTURES OF WORK: WHAT WE KNOW AND WHAT WE DON'T

Vili Lehdonvirta

University of Oxford, UK

The online gig economy (or remote platform economy) refers to platforms that mediate between buyers and sellers of service work delivered over the Internet, such as software development, graphic design, translation, and data entry. Surveys suggest that such remote platform work is now the main source of income for approximately 1% of European adults, and a side gig for many more. Over the past several years, a growing amount of research has examined this phenomenon from multiple angles, including its size, geography, effects on worker livelihoods, and the role of platform companies as enablers and private regulators of this new market. Other issues, such as remote gig work's interaction with standard labour markets, are less well understood. In this talk I will summarize some of the key things that are already known about the phenomenon as well as things that require further investigation. The online gig economy exemplifies many of the trends that are also visible in the broader labour market, such as self-employment, remote work, and the use of customer feedback and algorithms in the management of workers. As such, it affords a window on potential futures for work.

K3

LABOUR REGULATION FOR THE FUTURE: AUTOMATION, ARTIFICIAL INTELLIGENCE AND HUMAN RIGHTS AT WORK

Valerio De Stefano

University of Leuven, BE

This keynote speech aims at filling some gaps in the mainstream debate on automation, the introduction of new technologies at the workplace and the future of work. This debate has concentrated, so far, on how many jobs will be lost as a consequence of technological innovation. This speech will examine instead issues related to the quality of jobs in future labour markets. It will address the detrimental effects on workers of awarding legal capacity and rights and obligation to robots. It will examine the implications of practices such as People Analytics and the use of big data and artificial intelligence to manage the workforce. It stresses on an oft-neglected feature of the contract of employment, namely the fact that it vests the employer with authority and managerial prerogatives over workers. It will point out that a vital function of labour law is to limit these authority and prerogatives to protect the human dignity of workers. It will then highlight the benefits of human-rights based approaches to labour regulation to protect workers' privacy against invasive electronic monitoring. It will conclude by highlighting the crucial role of collective regulation and social partners in governing automation and the impact of technology at the workplace. It will stress the involvement of workers' representatives in managing and preventing job

losses is crucial and that collective actors should actively participate in the governance of technology-enhanced management systems, to ensure a vital "human-in-command" approach.

K4

THE FUTURE OF INTERPERSONAL WORK: INEQUALITY, INSECURITY AND AUTOMATION IN CONNECTIVE LABOR

Allison Pugh

University of Virginia, USA

Many jobs rely on workers' capacity to maintain and manage relationships with others, in what we can call "connective labor." Efforts to make this work more systematic – predictable, standardized, even automated – are burgeoning, from "personalized" high-tech teaching to virtual nurses to therapy apps. These efforts are often based on some shared assumptions: that relationships can be reduced to emotions; that measuring interpersonal work is effective and harmless; and that standardized connective labor is "better than nothing." Based on observations and interviews with workers, clients and engineers from Virginia to California to Osaka, this talk will address the myths and facts behind these shared assumptions, identify the shaping impact of contemporary inequalities and insecurities, and illuminate the challenge and the promise of connective labor in the virtual world.

K5

ME™: THE NEOLIBERAL SELF AT WORK

Ilana Gershon

Indiana University, USA

In 1978, when Foucault first proposed that a neoliberal thought collective existed, and had a shared vision that people should be entrepreneurial selves to best function in this vision of a market-ordered world, he had no ethnography or historical records of daily neoliberal practices to draw upon (Foucault 2004). Some forty years later, it is not hard to find moments in which people were consciously engaging with models of how best to be an effective neoliberal self (Ganti 2014). These models, however, need to be understood in richer detail than simply the "entrepreneurial self" that Foucault and Foucaultian critics of neoliberalism have suggested. This talk explores what can be gained analytically by seeing the self as a business that is a bundle of skills, assets, qualities, experiences, and relationships that enters into contractual relationships with other putative and actual businesses, balancing risk and responsibility. How does seeing the self as a business affect a wide range of contemporary workplace interactions – from hiring, online work distribution platforms, to general understandings of ideal work relationships? How has some of the ways in which neoliberalism has made some people's experiences of work and workplaces increasingly unpleasant paved the road to the rise of far-right populism?

K6

PLATFORM DEPENDENT ENTREPRENEURS AND BUSINESS: UNDERSTANDING POWER IN THE PLATFORM ECONOMY

Martin Kenney

University of California, US

Digital platforms are organizing ever greater swathes of the global economy. For small businesses and entrepreneurs these platforms have both benefits and dangers, nevertheless they are being integrated into platform ecosystems in ways that are increasingly difficult to escape as consumers

turn to platforms for an increasing variety of goods and services. Consider the situation of a business that is no longer discoverable by Google Search or a restaurant that cannot be found on Google Maps, a YouTuber that is demonetized, or a vendor that finds that Amazon has entered their market as a competitor or delisted them. In effect, an increasing proportion of the world's businesses are becoming dependent upon platforms and thus in a more precarious situation. This precarity extends far beyond I discuss the dimensions of this reorganization and discuss its implications for entrepreneurs and small business and thus labor.

PANEL DISCUSSION: DIGITAL WORK IN THE PLATFORM ECONOMY

Anne Kovalainen, *University of Turku*
Seppo Poutanen, *University of Turku*
Petri Rouvinen, *ETLA/Avance Attorneys*
Laura Seppänen, *Finnish Institute of Occupational Health*

The panel discussion addresses some key findings of a three-year research project on Smart Work in Platform Economy (SWiPE) and launches a forthcoming book, Digital Work and the Platform Economy: Understanding Tasks, Skills and Capabilities in the New Era, ed. by Poutanen, S., Kovalainen, A. and Rouvinen, P. Routledge (2019/20).

1.01

METAL WORKERS IN AN INDUSTRY 4.0 CONTEXT

Felix Lundmark

Luleå University of Technology, Luleå, Sweden

The Swedish metal industry, just like many other industrial sectors, is facing a technological leap. Industry today is pushing towards what is often referred to as Industry 4.0 or the fourth industrial revolution. Industry 4.0 emerged from Germany's national strategy towards future industry and can broadly be described as a technological advancement towards a digitalized industry. Many nations, including Sweden, has since then presented their own strategies. The technological advancement is regarded as the enabler for high-wage economies to compete in production. However, technological change cannot be decoupled from changes in the organization or from the people working within it. Therefore, the Swedish metal industry is facing far more extensive challenges rather than just a technological one. Changes in technology will likely affect the organization of production in many different ways, including the work content, working environments and the needed qualifications.

The aim of this paper is to identify what Industry 4.0 implies for the Swedish metal industry and metal workers. The results encompass an envisioned future of Industry 4.0 in the metal industry from two different perspectives. Firstly, the expected implications of Industry 4.0 in the Swedish metal industry is presented from a company perspective. Secondly, the expected implications of Industry 4.0 for Swedish metal workers is presented. The main focus has been put on the latter. The paper discuss the significance of Industry 4.0 for different types of workers and the possibility that we may see a polarization of the workforce in the future. Issues regarding integrity and data privacy as well as the possibilities of new gender patterns will also be addressed. The paper concludes that future prospects for Industry 4.0 in the metal industry holds great potential although several important matters must be addressed for the positive vision of Industry 4.0 to become reality.

Keywords

Industry 4.0, Work 4.0, Digitalization

1.02

THE BACKSTAGE OF ONLINE SALES

Asaf Darr

University of Haifa, Haifa, Israel

The Backstage of Online Sales

Buying and selling goods and services online is facilitated by the growing digitalization of our lives. In transaction cost terms, online sales seem to be very easy and almost frictionless when compared to traditional forms of selling and buying. Today, we can purchase an almost limitless number of products and services through the internet while sitting in our chair at home, and we can have our purchases from all over the globe delivered to us. All this can be achieved with little or no human interaction. Yet, only few of us are aware of the complex division of expert labor and the large number of occupations involved in designing and executing the socio-technical apparatus that allows online selling and buying to take place. In this empirical study I call this socio-technical apparatus 'the backstage of online sales', and I describe and explain the organization of expert labor that facilitates online selling and buying. The study demonstrates how online sales is supported by an elaborate division of labor and by a large number of knowledge workers such as programmers, website and graphic designers, publicity and marketing people and media experts, to cite a few. Members of these occupations are engaged in a complex web of sub-contracting that enable online shop owners to construct, design, publicize and evaluate their marketing strategies. Paradoxically, technological advance brings rise to sub-contracting systems resembling what Eccles (1985) calls 'quasi firms', and also to traditional craft forms of organization in the construction industry (Stinchcombe, 1959). To add to the complexity of backstage organization, many institutions, firms and online platforms mediate ties between the sub-contracting parties and the end consumers. For example, the state intervenes through custom policy, major trade platforms such as EBay or Aliexpress shape patterns of online exchange, and some platform even offer standard online shops, trying to internalize the sub-contracting networks. The study is based on 54 in-depth interviews, primarily with Israeli buyers and sellers in online markets, but also with online store designers, online marketing experts, photographers and copywriters who are integral to the exchange of commodities in cyberspace. Table 1 breaks down interviewees by market-related role.

Role	No.
Buyer	19
Online shop owner	8
Website builder	9
Website designer	9
Publicity and marketing	3
Media manager/programmer	6

Table 1. *Breakdown of interviewees by market role or occupation.*

The average interview lasted about 40 minutes. Most interviews were tape recorded and transcribed in full. In a few instances, notes were taken during interviews and were later expanded on a computer. The majority of interviews were conducted in Hebrew by two research assistants. Interviews with some individuals of Russian origin were conducted in Russian and then translated into Hebrew by the Russian-speaking interviewer. All transcribed interviews were compiled into a single data set for coding and analysis. The initial analysis of the empirical material was based on grounded theory (e.g. Strauss and Corbin, 1998), which requires interpolation between theoretical concepts and empirical analysis. Data coding began with the construction of broad descriptive categories. More fine-grained coding then took place within each category, and hierarchical relations among the categories were established.

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Keywords

Digitization of Sales; Knowledge workers; sub contracting networks

1.03

INDUSTRY 4.0: WHAT ARE THE LIKELY IMPACTS ON WORK?

Julia Connell[1], John Burgess[2], Alan Nankervis[3], Alan Montague[2]

[1]University of Newcastle, Newcastle, Australia. [2]RMIT, Melbourne, Australia. [3]Curtin University, Perth, Australia

There are both challenges and opportunities raised by the Fourth Industrial Revolution (Industry 4.0).These include the potential to raise global income levels and improve the quality of life, long-term business efficiency, productivity and national economic growth. Anticipated workplace changes concern the replacement of low, medium and some highly skilled jobs with artificial intelligence, robots and machine learning technologies (WEF 2017). For the first time in human history, such technologies are not only competing with humans for jobs (Kaplan, 2017) they are also exceeding the capacity of humans to apply intelligence to solve problems and generate added value (Hoe & Hoe 2017).

As a result, Industry 4.0 workforces need new skills for changing/upgrading jobs with the introduction of advanced machinery and agile production. Chalmers (in Adams, 2017) argued that we are witnessing an industrial revolution phase that will have the "biggest and most profound" impact ever on the work of humans, suggesting that every single occupation will be altered in one way or another, and although not every job will be totally supplanted, all workers and their managers will need to adapt (Scarpetta, 2017). Even though the rise of the FIR has the potential to become a driving force for social and economic growth, it will also simultaneously transform the patterns of production, consumption and employment, resulting in broader geopolitical and socio-economic changes in both developed and emerging economies (Ayentimi and Burgess, 2018).

Key challenges posed by Industry 4.0 lie in finding the right human capital strategies. This will require clear definitions of the knowledge, skills and competencies needed in the new global industry environment as well as identification of the responsibilities of stakeholders such as governments, educators and industry managers in addressing them. To date, there appears to have been little systematic, scholarly analysis of the impact of various processes associated with Industry 4.0. A literature analysis conducted by the CIPD (2017), validated by our own review, indicated that predictions to date have been largely anecdotal, confined to a limited range of case studies, or without empirical foundation.

To facilitate current understanding on this topic, this study focuses on the perspectives of Australian HRM professionals in relation to the broad features and claims associated with Industry 4.0. Their perceptions are crucial as they are at the forefront of monitoring labour market developments, and subsequently formulating and implementing workforce plans to address future workforce deployment, skill requirements, training, performance, reward systems and redundancies. The research question(s) focus on whether organisations are adequately prepared/assisting their workforces in dealing with the challenges of Industry 4.0. To answer these questions interviews, focus groups and surveys targeting HRM professionals and managers were conducted across Australia during 2018. Initial findings indicate that, in common with many aspects of change, there are both leaders and laggers in relation to Industry 4.0. The study suggests that managers and their organisations will need to change their mindsets, enhance their technological investments and develop customised workforce plans to ensure that their workforces are prepared for the inevitable need for transformation that Industry 4.0 will bring.

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Keywords

Australia; Industry 4.0; work transformation; manager preparedness

1.04

COMBINING DIGITAL LEAP AND COMPETITIVE TENDERING IN REORGANIZING PUBLIC HEALTH CARE. DID SOMETHING GO WRONG?

Ismo Kantola

University of Turku, Turku, Finland

Due to new legislation, the Social Insurance Institution of Finland (Kela) found itself obliged to tender out its subcontractors in the publicly funded transport of health care clients. Instead of arranging a competitive tendering of taxi entrepreneurs Kela decided to found a job for a dispatcher entrepreneur in each of its 17 service centers. The entrepreneurs were chosen by way of competitive tendering in a technically renovated frame as to what kind of taxi rides would be approved a public reimbursement. A new kind of system of managing the Kela-taxi rides emerged not only due to the legislation but also because of the adoption of a new kind of digital management of the calls.

It was soon obvious that the new system had serious defects and did not function properly in many cases, which ignited public discussion and critique of the reform. The paper discusses the reasons and reactions to the reform from the point of view learning better handle digital innovating and deregulation.

The paper is based on analysis of Internet contents right after the coming into force of the reform, i.e. from the beginning of July 2018.

Keywords

digital leap, competitive tendering, deregulation

1.05

CREATING KNOWLEDGE WITH ROBOTS: UNIVERSITY STUDENTS IN TAMPERE AND SINGAPORE

Johanna Hautala

University of Turku, Turku, Finland

Introduction

Knowledge societies are entering the global era of artificial intelligence (AI). In this era, intelligent artefacts, such as robots and AI applications, increasingly enter the everyday working life. The backbone of knowledge society are the processes of knowledge creation from ideas into critically justified results. These processes are profoundly changing in the era of AI, as humans co-create knowledge with intelligent artefacts that can learn independently and take increasing responsibility in the process of knowledge creation. Early adopters of such technologies, like university students of robotics, have critical roles in developing and determining, how humans co-create knowledge with robots in the era of AI.

Objectives

This presentation focuses on a sub-study of a wider project “Second Machine Age Knowledge Co-Creation in Space and Time” (2018-2023) funded by the Academy of Finland and the Foundation for Economic Education. The project aims to build a novel spatio-temporal approach to empirically analysing and conceptually understanding the processes of knowledge co-creation among humans, AI, and robots. Such an approach is required, since the research of knowledge co-creation processes among humans, robots, and AI is limited. This presentation asks and answers: who knows, what is knowledge, and how it is co-created between university students and robots?

Empirical study

This presentation reports case studies of robotics university students in Tampere and Singapore that are conducted in 2018-2019. The materials

include ca. 30 interviews of students and their teachers, observation of university courses and co-creation between students and robots, as well as surveys collected from the students of selected courses that include practical work with robots.

Tentative results

The tentative results demonstrate that the students consider humans to hold main responsibility for the knowledge creation process. However, the robots are also seen capable of having the knowledge and participating in the knowledge co-creating process. Knowledge creation is a spatial process where digital spaces both widen and restrict the possibilities for knowledge creation. Key aspects of digital space include simulation and constantly developing data that the robots bring into the socio-cultural spaces of the students. The penetration of digital into socio-cultural is a critical point in knowledge co-creation with unexpected failures, enthusiasm, and limitations of user interfaces and the material world.

Keywords

Knowledge creation, robot, space

1.06

COMMUNAL WORKPLACE LEARNING IN FINANCIAL ADMINISTRATION DIGITALISATION

Laura Bordi, Sanna Nuutinen, Kirsi Heikkilä-Tammi

Tampere University, Tampere, Finland

Financial administration is one of the fastest digitalising fields of business today. Software robotics provide new possibilities to automate tasks and processes, which may considerably change the contents and nature of many financial administration jobs. This requires continuous learning in the workplace as well as organisational structures and practices that enable and support the learning process. In discussions concerning learning needed in the digitalisation of jobs, the focus is often on formal learning (e.g. courses and training) and on individual skills and competencies. This rather narrow angle often ignores the essential role of informal learning that takes place in the everyday activities of the work community. When we look at learning and skill-development in the changing work, it is essential to acknowledge their communal nature – information seeking and use as well as the adoption of new tools and working methods usually happen in interaction between the members of the work community, the tasks, and the tools. Communal learning is considered a prerequisite for actual lasting changes in work practices, as learning in the workplace is heavily tied to the cultural norms and conventions of the work community. Communal approach to workplace learning is also connected to employees' agency, such the development of work practices, professional identities and skills in certain social, cultural and material conditions.

In our study, the aim is to examine digitalisation-related communal learning practices of three financial administration organisations. The focus is on how software robotics are adopted to the work communities' activities and practices, how communal workplace learning can be supported in the organisations, how employees' agency is constructed in organisations and work communities' practices, and how employees' agency can be supported in digitalisation-induced change. The project is a qualitative action research comprising of both individual and group interviews as well as workshops. In this presentation, we present preliminary findings of employees and supervisors' interviews carried out in spring 2019. The method of Appreciative Inquiry is applied in the interviews. The method provides a fruitful framework for identifying and supporting already functional practices in the workplace as well as developing new ones. Identifying and recognizing the existing beneficial practices is important, as those function as a springboard to developing new practices, skills and capabilities in the workplace.

Keywords

digitalisation, robotisation, informal learning

1.07

EXAMINING THREE HISTORICAL PHASES OF THE AUTOMATION DEBATE: SIMILARITIES, DIFFERENCES AND LEARNING POTENTIAL

Tuomo Alasoini

Finnish Institute of Occupational Health, Helsinki, Finland

This paper examines the contemporary debate on the effects of intelligent automation on work and employment as the third historical phase of the automation debate. It distinguishes the main characteristics of each phase, with a selective focus on the most influential studies of the time, looking at the main similarities and differences between the three phases. Based on the analysis, the paper considers what sociological studies could learn from the earlier discussions and in this way better understand the ongoing change dynamics concerning the relationship between evolving technology and work.

The roots of the modern automation debate date back to the late 1940s and the 1950s, when automation specifically referred to industrial automation that was at that time principally applied by technologically-advanced large enterprises in the automotive and continuous process industries. In most of the early automation debate, technological change was considered an inevitable feature of economic and social modernization and its impact on work and work organizations was largely seen as an inherent by-product of the nature of the technology itself.

In the second phase of the automation debate that was fuelled by the development of a microprocessor in the early 1970s, understanding of the nature, dynamics and effects of automation and, in general, technological development, widened with the adoption of more advanced perspectives. If the first phase of the modern automation debate focused on the rigid automation applied in the industrial mass production and continuous process industries, the idea of flexible automation was the characteristic feature of the second phase of the automation debate in the late 1970s and 1980s. The development of the microprocessor enabled a rapid spread of microcomputers and, as a result, a more decentralized use of computers and an easier, more rapid and more flexible reprogramming of computerized machines and equipment. The discussion on flexible automation and its impact on work extended now to new types of industries and work such as small-series and one-of-a-kind manufacturing and office and administrative work as well as work organizations of all sizes.

The third phase of the automation debate, which has gained momentum in the 2010s, has largely focused on the potential of artificial intelligence (AI), machine learning, intelligent robotics and digital platforms. Its core theme is the idea of intelligent automation. Intelligent automation is considered to extend to all industries and all kinds of organizations and in a more pervasive way than during the two previous phases.
Views that follow this line of reasoning are generally built on one or more of the following three arguments.

First, machines have now new functional characteristics such as computer vision, speech recognition, natural language generation, enhanced predictive power, increased communicative ability and increased mobility. This means that machines such as smart robots can substitute for human input in an increasing number of jobs and tasks.

Second, machines have now increased ability to learn. The traditional models in the development of AI that were based on expert systems, ontologies and rule-based reasoning have in recent years given way to connectionist models based on neural networks, fuzzy systems and evolutionary computation. This, together with the increase in machine computing power, the explosion in the amount of digital data and the development of new machine learning algorithms, has led to an optimistic turn in the discussion on the future potential of AI. The significance of machine learning is well illustrated by the fact that almost 60% of companies' investment in AI in 2016 was specifically targeted at machine learning. With the help of machine learning, and unlike traditional automation, intelligent automation does not wear out and lose its productivity potential in use, but is able to continuously develop and optimize its operations.

The third argument is not based on the nature of digital technology as such, but its combined effects with the globalization and deregulation of the economy. Companies have now greater leeway to locate their production and organize their work processes by making use of the possibilities for outsourcing, offshoring or acquiring work via digital platforms compared with earlier phases of automation. Thanks to improved availability of digital information and ease of communication, companies do not have to insource as many operations and grow the size of their personnel as before, because decisions over the location of different stages of their value chains can be increasingly made even on the level of individual tasks and operations.

However, there is at least so far no clear empirical support for the allegations of the sudden impact of intelligent automation on work and employment. The paper suggests that the effects of intelligent automation on work are percolated through various social, institutional and ethical filters. For this reason, the impacts can be difficult to predict and will probably have very different forms of expression in different institutional environments, such as countries and sectors.

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Keywords

Artificial intelligence, automation, work organization

1.08

THE POSSIBILITIES OF UTILIZING FACIAL EXPRESSION ANALYSIS IN FOOD SENSORY EVALUATION WORK

Ulriikka Savela-Huovinen[1], Auli Toom[1], Laila Seppä[1], Antti Knaapila[1], Hanni Muukkonen[2]

[1]University of Helsinki, Helsinki, Finland. [2]University of Oulu, Oulu, Finland

In the food sensory evaluation, digital technologies and practices should be developed further in line with the needs identified in the field. Facial expression method is based on discrete emotion theory and focuses on analyzing basic emotions that are universally recognized (i.e. anger, disgust, fear, happiness, sadness, and surprise). Traditional evaluation relies on self-reported responses to food stimuli to assess specific product attributes and acceptability. Recent studies have demonstrated that emotions are connected to food stimuli and facial changes are related to emotions. Could facial expression recognition software supplement, or even replace traditional methods?

This study examined sensory assessors' facial reactions elicited by the aroma of food and chemical samples. The objective was to gain understanding of how facial reactions could benefit in understanding the work practices of sensory assessors. The aim was to answer the following questions: 1. How is it possible to utilize the facial expression analysis in sensory evaluation work? 2. What additional new competencies are required in sensory evaluation when using facial expression analysis according to assessors?
Altogether twenty-four assessors from Finnish food companies and universities were interviewed by using semi-structural thematic interviews to map development intentions from facial expression recognition data as well as to explicate established competencies. The assessors first evaluated the aroma of samples (4-6 items) by rating the samples for pleasantness, intensity and familiarity on visual analogue interval scales. The evaluation was video recorded and characterized by the facial expression software (Facereader). The assessors were interviewed as they became acquainted with the analysis data from the facial expression software. The qualitative findings contribute to the explanation of how the assessors described and examined the traditional questionnaires and facial expression specific properties together and separately and revealed their potential advantages and disadvantages.

The study offers significant application possibilities in the working life of the future and gives the opportunity to estimate more widely the development of the digitalization also in other fields addition to food sensory evaluation.

Keywords

sensory evaluation, practices, facial expression analysis

1.09

DIGITAL COMPETENCES IN ORGANIZATIONS

Eva Collanus, Anne-Marie Tuikka,Jani Koskinen

University of Turku, Turku, Finland

Digital competence is considered as a relatively new concept (Ilomäki et al. 2011). European Commission have approached this topic from the viewpoint of citizens by presenting The Digital Competence Framework for Citizens. It includes 21 different capabilities that belong to five competence areas: information and literacy, communication and collaboration, digital content creation, safety and problem solving.

However, digital competences have been described with different terms, e.g. e-skills (Fernández-Sanz et al. 2017), ICT skills (Ilomäki et al. 2011), 21st century skills (Kay, 2010), and virtual competences (Wan et al. 2012). Digital competences are often defined as technology-related skills among individuals.

For example, Fernández-Sanz et al. (2017) have studied e-skills among ICT professionals and entrepreneurs. They present a framework called the e-Skills Match, which helps both jobseekers and employers to find and improve ICT-related skills. However, the research treats e-skills as professionals' skills, which differs from the aspect of European Commission. (Fernández-Sanz et al. 2017).

However, organizations can also vary in their digital competences. In this study, we define digital competence from organizational perspective by analyzing existing literature in information systems, and empirical data gathered in Digikyvykkyys project. Following empirical part of the study is conducted among SME sized technology companies, which focus on healthcare or maritime technologies.

As our focus is in competence of companies and seeking the differences between current terms and models, we have developed the preliminary research questions that are:

• what is the relationship between digital competence of individual and digital competence of organization?
• how digital competence of individual emerges from comments of employees in technology companies?
• how digital competence of organization emerges from comments of employees in technology companies?

Empirical research is conducted in 5 to 10 case companies which represent two industries: health technologies and maritime. All of these companies operate in Finland and they are interviewed during spring 2019. Cases are studied through qualitative research methods including focus groups and semi-structured interviews. Each focus group includes 3 to 5 participants who work in different roles in a same company.

Research data is analysed through open coding and categorization as advised Strauss & Corbin. The aim is to define digital competences as it is described by participants and analysed if some aspects of digital competence are related to organizational factors. At this point of the study, the importance of the industry is unknown for the analyses, however it might appear relevant during data analyses.

Digital competence could be useful concept in the organizational context. First, we need to look other concepts such maturity model and see how competence model would differ from other ones. By first look, it seems that competence model is more about capacity to achieve the tasks that organization should fulfill instead of analyzing the managerial approach like maturity models does. However, there is need for further evidence from literature and empiricism to make any conclusions. Secondly, we are aiming to understand what is permanent and what is sifting in digital competences. This would help to make visible what are the issues that should be focused in SME's to ensure achieving and up keeping the digital competence and thus viability of company.

Keywords

digital competence, individual competence, SMEs

1.10

ISOLATION BY DIGITALISATION? COPING WITH SPATIAL AND TEMPORAL FLEXIBILITY

Carin Håkansta[1,2], Ann Bergman[1]

[1]Karlstad University, Karlstad, Sweden. [2]Swedish Work Environment Authority, Stockholm, Sweden

This presentation focuses on changes taking place in working life due to digitalisation, contributing to increased spatial and temporal flexibility. Does it lead to professional and social isolation?

In Sweden, Denmark and the Netherlands, a third or more of all employees work at a distance often or sometimes (ILO & Eurofound 2017). According to Vilhemson & Thulin (2016), a contributing cause to the high share of mobile work in Sweden is that managers have a more positive attitude to mobile work than managers in most other countries. However, a survey by a Swedish trade union think tank indicates that public opinion about mobile work could be changing. Whereas 28 per cent of the respondents thought working from home was a good idea in 2001, the share had gone down to 20 percent in 2016 (Futurion, 2017). University educated, those employed in "advanced services" and high income earners are increasingly engaged in mobile work. However, the growth is somewhat faster in sectors other that advances services, indicating that mobile work is diffusing to more traditional sectors of the economy (Vilhemson & Thulin, 2016).

The point of departure for the presentation is a recently published study of Swedish labour inspectors (Håkansta & Bergman in press, 2019) which found that mobile work increases flexibility but can also lead to fewer physical encounters with colleagues and managers. Our presentation will

discuss our findings against the background of the evolving concept “Distance work”, changing terminology and different generations of mobile work.

According to Vega and Brennan (2000), isolation through digitalisation is a modern form of alienation which leads employees to feel decoupled and distanced from the organisation and the colleagues, experiencing lower levels of control as well as reduced contact and feedback from managers and colleagues. Isolation affects work satisfaction negatively and increases psychological load due to lack of or not enough social support.

Increasingly flexible and individualized working life with blurred boundaries between work and other parts of life is not a new discussion. According to Allvin et al (1999), experiences of this type of decoupling of work vary from individual to individual and are expressed in many different ways. It can lead to a sense of freedom from coercion and rules, leading to more independence. It can also lead to sentiments of exclusion, characterized by isolation and loneliness. In the latter case, individuals may miss access to a common place of work with its possibilities to interact, exchange information, and sense of community. Today, research is problematizing the spatial decoupling from e.g. a workplace by pointing to the spatial and temporal decoupling usually associated with a digital interconnection (e.g. Flecker & Schönauer 2016). To be always connected to the internet and accessible is, in other words, to be decoupled in a certain sense but not in all senses. Despite the fact that a digital connection places individuals in a socio-technical context, the discussion on loneliness by Allvin et al (1999) is still relevant.

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Keywords

Digitalisation, time, space

1.11

TECHNOLOGICAL, ORGANISATIONAL AND INTERACTIONAL COMPETENCES IN DIGITAL WORK

Kirsi Lainema[1], Timo Lainema[2], Raija Hämäläinen[1], Kirsi Heinonen[1]

[1]University of Jyväskylä, Jyväskylä, Finland. [2]University of Turku, Turku, Finland

Digital work has become a central part of working life. The change induced by digitalization has been rapid, and it can be compared to the revolution caused by industrialization (Goos, 2013; Murray, 2015). In the future, the working life is increasingly based on technological know-how, which, in turn, is founded on versatile and complementary competences (OECD, 2012). These competences comprise of technological, organisational and interactional competences and their combinations. At the same time, the increased technologisation of work also affects the well-being of employees and amplifies technostress, as digital work is often fragmented and stressful.

Ability to use technology and technological know-how are regarded as the core competences of digital work (Brynjolfsson & McAfee, 2012; Cardona, Kretschmer & Strobel, 2013; Kretschmer, 2012). In addition to the fluent use of technologies these core competences include critical evaluation of information, content production, collaborative problem solving, and information sharing (Ferrari, 2012; van Laar, van Deursen, van Dijk & de Haan, 2017; Vuorikari, Punie, Gomez & Van Den Brande, 2016). At best, technology inspires, accelerates and facilitates work by allowing more time to meaningful tasks. Digital work requires combining different means of interaction, and technologies can play a focal role in its facilitation (Bluemink et al., 2010). However, while the development and maintenance of technological competences is often placed centre-stage the organisational and interactional aspects of digital work often receive less attention.

The use of virtual communication technologies is distinctive to digital work. A skype call, where all participants are present at the same time is a typical form of synchronous virtual communication used in digital work. It is also a good example of a combination of technological and interactional

skills. Using multiple communication tools and going from one of mode of communication to another requires versatile skills. Studies of technology and information systems illuminate how designing and using new technologies are fundamentally dependent on local and collaborative organisation of talk-in-interaction (e.g. Rawls & Mann, 2010, Whalen & Vinkhuizen, 2000). Digital work is, thus, highly dependent on interaction, and at the same time, vulnerable to disturbances in it (Tynjälä, Häkkinen & Hämäläinen, 2014; Isohätälä et al., 2019; Marlow, Lacerenza & Salas, 2017).

The organisational aspects of digital work have received only little attention. Digital work is often regarded as independent and self-organising. However, it requires planning, coordination and monitoring. Distinctive challenges to digital work include the geographically dispersed teams, virtual communication, multi-professionalism, heterogeneity of technological competences, and the organisation and management of work (Pirkkalainen & Salo, 2016; Harteis, 2017). The challenges of management and organisation are particularly pressing in digital work, where teams may have unofficial or distributed leadership, leaders may lack managerial expertise, and clear managerial guidelines may be missing (Axtell, Fleck, & Turner, 2004; Paul, He, & Dennis, 2018).

In order to examine the competences needed in digital work we carried out an empirical study of team work in a virtual digital gaming environment. In the study setting, students were divided into teams of around 8 people, of whom at least 3 were supposed to be online at the same time. Altogether 15 teams and 207 students from 10 different countries took part in the virtual gaming session. The data comprise of self-reflecting essays written by the students after the gaming session. The essays were analysed with content analysis and an inductive approach, which allowed for the analytical categories to emerge from the data.

The choice and combination of communication technologies played a key role in how the teams got organised. Asynchronous communication tools, such as email and Google docs were used for planning tasks, whereas VoIP tools and chat were mostly used for the coordination of the task at hand. Technical problems influenced the choice and use of communication technologies. However, teams with complementary technological skills could overcome the technical problems without much trouble.

Teams with smooth organisation of work and balanced division of tasks reported to have strong leadership by one or two team members. Organising tasks and shifts for team members was partly done before the gaming, but adjustments to the plans needed to be made during gaming. Teams with clear management and organisation could react to sudden events and surprises, and re-organise quickly. Interestingly, an essential organisational and managerial task was to offer help and advice to team members. In many teams some students took the responsibility for the overall management of the team task including organisation of work tasks, but they also took in upon themselves to ensure that all team members had the support and information they needed. This is an important observation, since the organisational work in digital work often goes unnoticed.

The findings of our study suggest that the competences needed in digital work are much more intertwined and complementary than previously understood. Therefore, more in-depth studies on the subject are needed.

References on request

Keywords

Digital work, Virtual communication, Organisation of work

2.01

TEXT MINING AND INFORMATION EXTRACTION FROM JOB ADVERTISEMENT

Philipp Martin

Federal Institute for Vocational Education and Training (BIBB), Bonn, Germany

Project and Goals

The development of automation technology, software and robotics is constantly in progress. In many work processes, the use of digital work equipment supports the employees in the performance of their activities. Due to the increasing share of digital support, the demands placed on workers are also changing. With our research project, we would like make these changed requirements quantifiable. Requirements on the labour market can be well observed through job advertisements. In job advertisements, employers describe the ideal-typical employees for performing the activities in their company. The questions concerning changes in the requirements on the labour market, whether changing competences or new qualification requirements are being asked, have been examined with the help of our database of job advertisements. The data basis consists of job

advertisements that have been registered with the Federal Employment Agency. The registration rate in Germany is about 50 percent. Thus, our data covers a large excerpt. For the years, 2011 to 2017, there are more than 3 million job advertisements in our database.

Extraction and Classification

The presentation will focus on the method of text miningrespectively information extratation. The job advertisements contain phrases about competences that are extracted from the rest of the advertisement text. This extracted data is stored together with other information provided with the job advertisements in a new data record. This allows an enormous reduction in the volume of data. First, the sections in which competences are suspected are identified (task description). Then, only in the identified section of the job advertisement, competences are searched for. For this purpose, so-called patterns are created, i.e. sentence structures in which certain signal words are found. These patterns can be used to find new signal words and thus generate new patterns. The extractions had to be checked in many hours by students and scientific staff. In many rounds the result was optimized.

By automating the extraction of competencies from job advertisements, it has become possible in the first place to capture and classify more than 500,000 job advertisements for the year 2017 in one dataset. The following definition of competencies has been fixed for our study: Competences are all physical, psychological and cognitive characteristics as well as work experience which are expected by the employer from a potential job applicant in order to optimally fulfil the tasks of the advertised position. Our goal is to make the requirements for potential employees systematically visible and to recognize possible changes over time at an early stage.

Contribution to the Session

The contribution to the stream is on the one hand the description of the computer linguistic extraction procedure and the lessons learned. On the other hand, I will point out what is in the dataset, how it is structured and which variables are contained. In addition to the advertisement text, further variables such as occupation, requirement level, company size and location as well as economic sector are recorded and made available by the Federal Agency.

Further, I am going to follow the question of possibilities and limits in the use of this method.

Outlook

In our project, we have started with the extraction of work tools and have moved on to the extraction of competences. The quality of the extraction will be further improved and extended to further years. The database is going to be extended to a higher proportion of the labour market and extended to several survey dates within one year. If the exploitation of the extraction has also been automated, analyses of the labour market will be possible in almost real time. If sufficient extraction dates are available, one can begin to observe development trends and, under certain circumstances, forecast their development.

Keywords

Text mining, Job advertisements, information extraction

2.02

APPROACHES TO STUDYING USES OF VIRTUAL REALITY TECHNOLOGIES IN WORKING LIFE

Minna Vasarainen

University of Helsinki, Helsinki, Finland

This paper bases on the dissertation project, which aims at studying valuation as a part of workplace learning in the context of virtual environments, from augmented and mixed reality to full immersive virtual surroundings. Valuation is an on-going assessment on whether the actions of an individual or group are purposeful. Virtual reality (VR) tools are expected to change collaborative work, hence valuation-tied decisions and practices. The research aims at finding out how these changes are happening in collaborative working activities.

The conference paper will review potential methodological approaches of social sciences for studying VR tools in architectural design and construction. The variety, complexity and amount of offered VR tools has grown as well as the number of various studies. However, the fine line what is counted

as VR or 3D-model, as well as some key presuppositions of the research, related to these tools, are still in question. The paper will take an overview on the ways VR technologies are studied in social sciences and with regard to the analyzed approaches, the paper will suggest some main methodological principles under debate.

Significance of VR tools has been studied through categorization of practices and case studies in building construction and in planning of smart cities (Du et al., 2018; Jamei et al., 2017). Alternatively, VR tools have been approached through their chronological development from 3D-models to more complex, immersive virtual environments (VE) (Stauskis, 2014). VR tools have been evaluated against each other in order to map their potential usefulness for visualizing different forms of data, engaging different stakeholders of the project and contributing for more collective projects, such as development of urban simulator for public participation.

VR tools might have an additional role compared to information and communication technology (ICT) in working life. However, the separation of VR tools from other ICT and even its inner conceptual hierarchies are not clear. One main question is that what is considered as virtual instead of real? Hence, what is the potential added value of VR tools? Since VR tools presumably shape valuation process in a distinct way from other ICT and to study the actual use of technologies, ethnography seems as the best method to approach the subject. As Maftei and Harty (2015) have noted, practical customs related to VR technology are minimally studied.

Ethnographic methods, used with different theoretical approaches, might enable the mapping of these changes in practice of everyday working life. Ethnographic methods can help us to track different kinds of concepts from people and things to metaphors, stories, allegories and biographies (Marcus, 1995). In research of VR technologies, engagement with more specific methods, such as grounded theory and virtual ethnography, have been made case by case. Ethnography is a commonly used method for studying practical customs, and it has its own streaks for research in web-based platforms (netnography), virtual worlds and/or digital ethnography (Caliandro, 2014). Hybrid ethnographic methods, referring to both traditional fieldwork and virtual-based research, might offer a pathway for studying the actualization of valuation and following the way VR tools transform and mediate ways of collaboration and practices.

Technology inevitably changes our everyday lives but also the research process itself. Characteristically, the changes are subtle and less noticeable in the short than in the long term. The paper aims at mapping these subtle changes in order to contribute to the larger conversation on what kind of role ICT has and should have in our lives.

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Keywords

virtual reality tools, working life, ethnography

2.03

GAMES AS BOUNDARY OBJECTS ENHANCING CREATIVITY AT WORK

Mirva Hyypiä, Satu Parjanen

Lappeenranta-Lahti University of Technology LUT, Lahti, Finland

The complexity of today's problems transcends the individual human mind, requiring not only individual but also collective creativity. In collective creativity, it is impossible to trace the source of new ideas to an individual. Instead, creative activity emerges from the collaboration and contribution of many individuals, thereby blurring the contribution of specific individuals in creating ideas. By integrating different actors into the development process, creativity and know-how are brought into the organization. Creativity, which is closely related to knowledge, is seen as an important organizational

capability, a possible source of organizational performance and a source of competitive advantage. Furthermore, creativity allied to innovation plays a critical role in the development process.

The boundary objects are providing a possible channel through which distinct groups can communicate during the development process. Objects become boundary objects when they are used at the interface of different groups, social circles, stakeholders or organizations. Boundary objects are the links in the communication processes where different perspectives are to be discussed into a co-created meaning.
Many of the studies on gamification focus on web-based tools or platforms, motivation in e-learning platforms, web-based gamified environment design for supporting collaborative elicitation or on how gamification supports team creativity in virtual worlds. The actual idea of gamification in organizational context is to add gamefulness to present systems rather than constructing a completely new game. In this study, however, our aim is to investigate evolvement on gamification and creativity methods in different organizational development processes. Especially, we are focusing on how the low-tech board games could be used, further developed and integrated at work.

This study draws upon a long-term, action research-based development projects carried out in research group that is specialized in developing approaches, methodologies and evaluation tools for introducing, applying and disseminating innovation practices and results of R&D activities in public, private and third sector organizations. The cases included in this study represent several industries and their development processes in Finland. The low-tech board games and gamefulness co-creation have been achieved in over ten years' collaboration with different partner organizations.

The main contribution of this study relates to applying the rather conceptual models in practice. The integration of boundary objects, collective creativity and low-tech (board) games, is still often overlooked or misunderstood. In the use of the creativity methods and gamification, it is vital to see the whole of development in a new way. The boundary objects need to bond organizational and individual skills in a comprehensive manner; in addition to single solutions and "technology hype", a multi-faceted and human-oriented vision and a very clear aim for using creativity methods and gamification are crucial. The results of this study provide practical contributions on how boundary objects are able to assemble creativity and gamification at work. In addition, the study sheds light on the significance of combining gamification, boundary objects and creativity theories in research.

Keywords

Games, creativity, boundary objects

2.04

QUANTIFYING THE HUMAN INTERFACE OF DIGITAL CHANGE - CASE PUBLIC SECTOR SERVICES.

Tero Kuusi[1], **Martti Kulvik**[1,2]

[1]Etla, The Research Institute of the Finnish Economy, Helsinki, Finland. [2]Dept. of Neurology, Helsinki University Central Hospital, Helsinki, Finland

In this work we introduce a straightforward but novel tool for dynamic productivity analysis down to task level. It could also be regarded as a digital footprint snapshot that offers a multitude of indices supporting planning, assessment and management of digital interventions. We demonstrate it on case examples from public sector service providers that are in different stages of digitalization and automation.

Digitalization is rapidly changing the organizational reality through its ability to allow vast and precise data collection of performed processes. Moreover, digital process management opens the world of proceeding into automated tasks, from algorithmic software up to the application of real artificial intelligence (AI) technologies. Automatization is expected to simplify procedures, streamline operations, and speed up the accomplishment of organizational task. Paradoxically, however, metrics suggest that the effects of the information era on productivity has not been clearly visible – a phenomenon often referred to as the productivity paradox[1]. Literature sources the productivity paradox back to several contributing factors, such as failure to capture all services of the organization, negligence of the quality aspect, and major measurement problems per se.

Productivity measurement problems are common to all organizations that operate in complex environments, and who cannot quantify their performance with direct monetary returns. We present a novel analytical tool that is particularly suited for such organizations. To that end, we first define productivity by 1) identifying the "core" outputs or activities, then 2) developing unit costs or activity accounting for core outputs, and finally 3) dividing total outputs by hours to give the labour productivity number for the organisation. Secondly, we measure the productivity using a novel application of statistical productivity assessment.

Using the tool, we illustrate the digitalization, and the opportunities provided by complex data to quantify effects of digitalization on labour productivity. We find that our metrics can get us to the roots of the productivity paradox. We can study how the characteristics of work are changing and see how

that change is affecting productivity. We can also assess the effects of (partial) automation of tasks on productivity. Finally, we discuss how the indices can be applied in the day-to-day HR management, for example, to build pay-for-performance rewarding schemes and to improve resource planning.

Keywords

statistical productivity calculation, digitalization, automation

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2.05

MANAGEMENT CONSULTANTS' WORKING LIVES IN CONTEXT: ISSUES, ALTERNATIVES, AND CHALLENGES IN ANALYSING MULTI-SENSORY LIFE HISTORY DATA.

Navneet Agnihotri

Leeds University Business School, Leeds, United Kingdom

This paper engages in a discussion on the methodological aspects of research with specific emphasis on choices and pathways in analysing multi-sensory life history data. The paper is based on research that employed life history methodology in critically exploring the working lives of 'management consultants' with an emphasis on how consultants give meaning to, interact with and construct their working lives. Using a constructionist perspective, this research employed a nuanced approach towards exploring intermingled, relational and paradoxical aspects of consultants working lives.

In-depth life history interviews were carried out with participants from leading consulting firms in the UK and Denmark. These interactions with participants included a visual inquiry into their life events (working lives) through self-generated images of events, people and issues. This visual method is often referred to as 'reflexive photography', a variant of the classic photo-elicitation method that provided a continuing contemporary perspective on the participants' lives.

The resultant data represented the multidimensional lives of 'management consultants' in multiple forms invoking embodied and multi-sensory responses. The use of a combination of the textual and visually informed method presented challenges in representation, reflexivity and theory development. This paper attempts to elaborate on the issues and challenges in carrying out the analysis of the 'guided conversations' (interview text) and participant-generated visuals.

Keywords

Management Consultants, Working Lives, Life history methodology, Visual inquiry

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2.06

THREE METHODS IN ONE DISSERTATION – NEW INSIGHTS INTO RESEARCH PROJECT ABOUT INDUSTRIAL RELATIONS IN TURKU HARBOUR BY MAUNO KOIVISTO

Tapio Bergholm

University of Eastern Finland, Joensuu, Finland

I have published two articles earlier about Mauno Koivisto and his dissertation (Puoluesoturin pettymys - Mauno Koivisto ja ahtausyrittäjät 1949-50, Historiallinen Aikakauskirja 2/1998, 121-128) and Oma kokemus tutkimuskohteena - Mauno Koivisto ja Turun satama, Työelämän tutkimus 1/2008: 77-81). I am now writing a biography of Mauno Koivisto.

Mauno Koivisto was one of the new sociologists who started to introduce industrial relations research into Finnish Sociology. His dissertation The

Dock Workers of Turku (Åbo) a Study in Industrial Relations (Sosiaaliset suhteet Turun satamassa. Sosiologinen tutkimus, 1956) was path breaking but at the same time controversial.

The multidisciplinary approach and use of different methodologies to gather information made the dissertation rich in information but at the same time vulnerable to criticism of the specialist of these divergent disciplines and methods.

In this paper I will describe the research process of Mauno Koivisto. Development of his methodology in the process as well as the criticism which he received during the process, especially from his supervisor, professor Esko Aaltonen and outside eximinator, professor Heikki Waris. I will also discuss the evaluation of the dissertation by the opponent, who surprisingly was also professor Esko Aaltonen.

After descriptive part I will discuss and analyse problems to introduce new multidisciplinary approach into Finnish sociology in 1950s. How old customs and new innovative, creative methods and writing collided in the process.

Keywords

Indusrial Relations, New Methods, Mauno Koivisto

2.07

THE EXPERIENCE OF PAID EMPLOYMENT FOR PEOPLE WITH INTELLECTUAL OR DEVELOPMENTAL DISABILITIES; AN EXPLORATORY RESEARCH DESIGN.

Diana Ramsey

The University of Brighton, Brighton, United Kingdom

In recent years there has been a renewed focus on employment in the policy and social environment of the UK. The Department of Health states that in 2010/2011 6.6% of people with an Intellectual Disability (ID) were reported to be in paid employment (D. O. H, 2012) although it is estimated that 65% of people with an ID would like a paid job, while the interest of people with Developmental Disabilities is not collated. The barriers facing people with an IDD on entering employment are numerous and complex (COT, 2007). Studies exploring work with people with IDD largely have focused on identifying factors that support individuals to gain employment (Rose et al, 2005) and outcomes from being in employment (Akkerman et al, 2016). However, the 'voice' of the person with LD in relation to their experience of work is often limited or absent from academic papers.

This research, engaged in as part of PhD study, examines the lived experience of six people with an IDD in paid work. It uses a hermeneutic phenomenological methodology to establish the impact of their IDD on work and to generate knowledge to inform those, who support people with IDD in work. In this exploratory design, the participant, researcher and photographer form a creative collaborative partnership using visual and narrative methods in data gathering and data analysis in order to maximise the involvement of the participant and gain insight into their experience of paid employment. The research background, the creative collaborative partnership process and findings will be presented by the researcher with involvement from one of the study participants and the photographer.

Keywords

Intellectual and Developmental Disabilities, Creative collaborative partnership,

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2.08

TOWARD A COLLECTIVE CONSCIOUSNESS-BASED PLATFORM ECONOMY

Marja Turunen[1,2], **Matti Mäntymäki**[1]

[1]University of Turku, Turku, Finland. [2]Aalto University, Espoo, Finland

This paper presents collective consciousness as a focal actor (Latour, 2005) through which to understand the socio-material dynamics of platform economy. Organizing is taking place in a world that is increasingly permeated with digital technologies such as Internet of Things, Artificial Intelligence and Big Data. These technologies change the very core of products and services that we use every day (Yoo, Boland, Lyytinen and Majchrzak, 2012). In the process, they also transform work and enable collective action for societal change. The term platform economy denotes "Intermediation of decentralized exchanges among peers through digital platforms," (Acquier, Daudigeos & Pinkse 2017).

While the concept of platform economy has drawn a lot of attention in both academic literature and popular press and media, the intangible psycho-social layers of attention and shared cognition produced by the interactions between and within platform ecosystem actors has thus far remained under investigated. To address this void in the literature, we adopt collective consciousness as an actor, to better understand platform economy as complex networks of heterogeneous actors. To this end, we particularly to scrutinize the intangible elements of platform economy and adopt Turunen's (2015) view of organizing, which maintains that the platform economy is an outcome of consciousness of heterogeneous actors. In doing so, we follow Tsoukas (2017), who maintained that increasing the complexity of organizational theory is essential to better capture the complex nature of real-life organizational phenomena.

The concept platform economy refers to economic activities facilitated and intermediated by digital platform (Acquier et al. 2017). Digital platforms in turn can be conceptualized in a variety of ways (de Reuver et al. 2018), such as purely technical artefacts where the platform is an extensible codebase, and the ecosystem comprises third-party modules complementing this codebase (Tiwana et al., 2010; Boudreau, 2012). A digital platform can, however, also be characterized as a sociotechnical assemblage (Latour, 2005) encompassing the technical elements (of software and hard-ware) and associated organisational processes and standards (Tilson et al., 2012). Ghazawneh and Henfridsson in turn (2015) draw on Tiwana et al. (2010) and defining digital platforms as:"software-based external platforms consisting of the extensible codebase of a software-based system that provides core functionality shared by the modules that interoperate with it and the interfaces through which they interoperate".

Digital platforms enable diverse actors such as buyers and sellers to engage in economic exchange through ta common platform (Boudreau and Hagiu, 2009). Thus, digital platforms resemble multi-sided markets (Rochet and Tirole, 2003). The platforms in turn that represent the entities that in the business ecosystem is called as dominators (Moore 1993).

The concept of collective consciousness emanates from the social sciences, particularly social psychology and sociology (Vygotsky, 1980; Hutchins, 1995), and originally dates back to Durkheim (1895). In his studies of the sociology of suicide, Durkheim (1951) found out that individuals' acts, such as suicide, depended on the collective consciousness within a society. Thereafter, collective consciousness has been examined in a wide range of contexts, including business networks (Allee, 2003; Normann & Ramirez, 1993; Normann, 2001) and business ethics (Pandey & Gupta, 2008).

Collective consciousness has been denoted an awareness of something bigger than the individual, such as the shared understanding of social norms, and those norms are able to affect individuals (Vygostky, 1978), thus it is a purpose- and meaning-making dimension above any individual actor. Leontjev, (1973) and Bronfenbrenner (1977) address it manifests itself in people's activities in the world, particularly in symbolic systems such as language. This perspective is exemplified by Leontjev (1973, p. 183) who viewed consciousness as pervading all human actions, with activity being an important substance of consciousness. As a result, collective consciousness is distinct from individual-level consciousness (Turunen, 2014, 2015).

Since collective consciousness is essentially also an actor, which is socio-materially constructed, it is affected by, and has an impact on, a number of individual-, group-, and society-level contingences, such as trust, norms, and values, including technology, to name but a few. Because collective consciousness is based upon reciprocal ties between actors, it may play a focal role in inducing transformation and renewal but also repression and stagnation related to work in platform economies. In any case, the process of developing the consciousness and the artifacts produced by the process (Garud & Turunen, 2017) need simultaneous attention.

The purpose of this paper is to understand if and how collective consciousness manifests itself in platform economy and denotes implications to work. We present an illustrative case study of a digital platform and associated business ecosystem for internet of things (IoT)–driven services. This article contributes to the platform economy literature (de Reuver, Sørensen & Basole, 2018; Parker, Van Alstyne, & Choudary, 2016) by delineating a need for increased analytical depth and conceptual clarity in studying the intangible elements and dynamics of platform economy, and consequently the work in platform economies.

Keywords

Digital, Platform, Work

2.09

OBSERVING (WITH) THE VIRTUAL. USE OF OBSERVATIONAL METHODS TO STUDY WORK IN A DIGITALLY MEDIATED WORLD

Anni Paalumäki, Suvi Satama

Turku School of Economics, University of Turku, Turku, Finland

This paper discusses, how the increase of digital interactions in modern organizations enables and challenges the use of observation as a research method within the qualitative research realm in management and organization (MO) studies. As e.g. Akemu and Abdelnour (2018) point out, interaction taking place over digital technologies and platforms is gradually merging with face-to-face interactions in a growing extent, permeating social life in ways that often escape ocular observation. In contemporary work, digital interaction takes place through various technological interfaces, such as computers, software platforms, documents, blogs, and so on. These digital artifacts (see e.g. Kallinikos et al, 2013) offer researchers the possibility to either follow ex post record of informants' interactions, or engage in the process of interaction in real time. Moreover, digital technologies allow us to follow organizational interaction taking place in multiple sites simultaneously (Czarniawska 2008). However, despite of the changes in work and its contexts, many MO researchers seem to relay on traditional face-to-face observations with research designs involving one single location. In addition, in MO literature, so far, very little attention has been paid to methodological considerations of observational research, in order to support research practice to grasp the complexities fueled by virtuality and the use of technological advancements within modern work life.

It can be stated, that irrespective of the context of study, there exist similar issues to be solved for observational research. Researchers need to reflect access, issues of trust and rapport with participants, the degree of involvement, or ways to specify the case or process being studied. Yet, as Garcia and her colleagues (2009) point out, a new set of skills is required to observe and interact with research participants in computer-mediated work communities. Observation focusing on mainly one physical setting and face-to-face interaction only, is becoming inadequate means to capture the richness of contemporary work. For example, the seemingly simple observation of people working on their computers or smart phones may lead to misleading conclusions, as some may be playing an online game, some chatting with a friend or trading shares, or some writing a novel. This challenges researchers' ability to grasp and describe the quality of interaction taking place. Moreover, in order to observe online work, one cannot rely solely on the interpersonal skills of co-presence with the research participants. The issues of research ethics, such as the lack of physical presence and opportunities for anonymity for researcher, as well as the needs for participant privacy and confidentiality may differ from face-to-face contexts. Consequently, it is argued in this paper, that qualitative researchers applying observation within MO, need to adjust their research strategies and techniques to meet the characteristics of contemporary interaction within computer-mediated communication (see also e.g. Akemu & Abdelnour 2018).

The paper builds on the findings of a narrative literature review (e.g. Bryman & Bell 2011), with the purpose of generating understanding of the topic base on the existing literature. We discuss the specific nature of the computer mediated communication, and the possibilities and challenges it poses for the observational researcher, either separately, or combined with other research approaches, such as ethnography. It is further argued, that observational research combined with virtuality of work, calls for and opens up new possibilities even to those MO researchers, who have previously mainly built on other methods, such as interviews or historical archival data. We conclude by discussing how the computer-mediated communication of modern workplaces not only has impact on observing online work, but simultaneously on interaction taking place offline.

Keywords

research methods, observational research, virtuality

2.10

COMBINING COACHING, NARRATIVE ANALYSIS AND GENDERED STRATEGIES TO STUDY BEHAVIOURAL AMBIDEXTERITY AND WELL-BEING AT WORK

Ani Raiden[1], Christine Räisänen[2]

[1]Nottingham Business School, Nottingham Trent University, Nottingham, United Kingdom. [2]Chalmers University of Technology, Göteborg, Sweden

We present a novel, combined qualitative methodological approach, comprising gendered strategies (theoretical lens), narrative analysis (overall methodology), and coaching tools (methods), aimed at building trust and eliciting rich and meaningful data about sensitive psycho-social issues.

The study at hand concerned academic workers' perceptions of ambidexterity and well-being. We were interested in the gender(ed) strategies of men working in academic roles in Universities in Sweden and the UK. At the heart of the study was a desire to understand the men's perceptions of well-being and how they managed work-life balance. Beyond the influence of gender(ed) strategies on the research process, considering gender also meant that we were able to develop a contribution to knowledge in a space that has not been extensively studied, namely that of "new men" or "working fathers". These concepts have emerged to refer to men who do not conform to the traditional male work model, but value personal well-being, and are keen to spend time with their family. Several critical issues, for example, how to reduce researcher bias and subjectivity; how to bridge the gender divide; what implications may prior-relationships between researchers and the research participants have on the analysis; and how researchers negotiate mutual ontological, epistemological and ideological differences warrant attention when embarking upon any qualitative research.

We tried to address as many of these issues as possible in our research design. The three approaches described in this paper: gendered strategies, narrative analysis and coaching are well established within their particular disciplines: gender studies, story-telling and leadership intervention, respectively. Our contribution is how the three approaches can be effectively combined to enhance learning among researchers and research participants, to elicit thick data and to maximise on researchers' different backgrounds and experiences. The last-mentioned contribution is increasingly important in a globalised world of cross-national and interdisciplinary research. Eliciting thick data which probe causes, effects and consequences of complex phenomena, providing insight into socio-cultural and contextual differences is a critical issue for qualitative research. Such studies do not allow for generalisation, but contribute to knowledge of individual variation.

Keywords

coaching, narrative analysis, gendered strategies

2.11

SELLER INFLUENCE TACTICS IN DIGITAL CUSTOMER ENCOUNTERS

Jarkko Niemi[1], Johanna Vuori[1], Hanna Timonen[2]

[1]Haaga-Helia University of Applied Sciences, Helsinki, Finland. [2]Aalto University, Helsinki, Finland

Doing influence work is at the core of selling (Prus, 1989). Broadly looking all communication between a seller and a buyer can be viewed as influence tactics (Evans, McFarland, Dietz, & Jaromillo, 2012).

McFarland, Challagalla and Shervani (2006) identify six seller influence tactics (SITs):

- Information exchange: the salesperson provides information of the product, service or industry and presents questions to the customer
- Recommendation: the salesperson presents arguments to convince the customer of the benefits to the customer or customer company
- Threat: the salesperson implies or states negative consequences if the customer does not follow salesperson's advice
- Promise: the salesperson gives promises of future rewards or benefits to the customer
- Ingratiation: the salesperson praises the customer and expresses attitude similarity
- Inspirational appeal: the salesperson appeals to customer's values, aspirations, organizational ideas or goals

In their research, McFarland, Challagalla & Shervani (2006) match SITs with different buyer orientations (task-focus buyers, engagement-focus buyers, and self-focus-with-balance buyers). The research shows, for example, that the seller's use of threats and promises is significantly higher for self-focus-with-balance buyers than for the other two buyer orientations, and the use of ingratiation and inspirational appeals is significantly higher for the engagement-focus buyers than for the other two buyer orientations.

Later, Plouffe, Bolander and Cote (2014) established a link between SITSs and sales performance. Liu (2018) indicated that the efficiency of used influence tactics depends on the trust between the seller and customer and supplier switching costs. Hohenschwert and Geiger (2015) identified three additional influence tactics and demonstrate their connection with the value creation attempts in sales negotiation.

- Disruption: the salesperson approaches the customer situation from a new perspective, provides counterarguments or creates tensions
- Reassurance: the salesperson assures that the customer is able to solve the problem, shares honest concerns of the situation and confirms customer of the suitability of the solution
- Dedication: the salesperson dedicates time to the customer and is flexible in schedules.

Research setting

Our study is based on a corpus of 10 technology-mediated business-to-business sales calls. The seller company offered a project management and a work time tracking solution (software-as-a-service). A salesperson had arranged a meeting time with a customer and then phoned him of her. The seller and a prospective customer could not see each other, but the seller provided the customer with a link that offered a shared computer screen view. The seller was therefore able to present his company and their service to the customer by talk and by visual demonstration. During the phone call, the customer was also able to test the service using his or her own mobile phone. We video-recorded these technology-mediated sales calls in the seller's end. Thus we captured the seller and the screen that he was sharing with the customer. To analyze our video-recorded data, we applied the method of conversation analysis (Clift, 2016), an accepted analytical method adopted extensively in linguistics and the social sciences.

The analytical process had an abductive approach. We were informed by the extant literature on SITs (McFarland, Challagalla & Shervani, 2006; Hohenschwert & Geiger, 2015), but we observed our data without specifically looking for earlier identified influence tactics. Therefore, our study is both theory-driven and data-driven: extant literature and the theoretical model it proposes guided our study, but our data observations were also used to challenge and modify the theoretical model.

Research task

In this paper, our aim was to identify those influence tactics that salespeople use in digital customer encounters. What SITs are effective and lead to stronger customer interest in the offered service? Lacking visual access to each other, the seller must resort to talk and visual presentations. Besides verbal influence tactics, we study how the seller can use the shared computer screen as a resource to influence his customer.

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Keywords

influence tactics, video-based research, digitalization

3.01

WHEN WORK BECOMES VISIBLE: AN ANALYSIS OF KNOWLEDGE BROKERING BEHAVIORS

Ward van Zoonen[1,2], **Anu Sivunen**[1]

[1]University of Jyväskylä, Jyväskylä, Finland. [2]University of Amsterdam, Amsterdam, Netherlands

The widespread adoption of social technologies in contemporary workplaces has raised compelling questions about the ways in which these technologies impact organizational processes of knowledge sharing (e.g., Leonardi, 2014; Leonardi & Vaast, 2017; Treem & Leonardi, 2013). Scholarly attention has focused predominantly on identifying and mapping technological affordances (e.g., Gibbs et al., 2013; Leonardi, 2014; Oostervink et al., 2016; Treem & Leonardi, 2013) that enable various sets of potential knowledge sharing behaviors across organizations. Although many different affordances have been discussed (Rice et al., 2017; van Osch & Steinfield, 2018), the consensus seems to be that social technologies present new possibilities for collaborative action and knowledge sharing, mainly because these technologies can afford visibility and association of content and people across organizational boundaries (Leonardi, 2014; Treem & Leonardi, 2013).

The affordances of social technologies have been associated with various tensions in the workplace. Gibbs and colleagues (2013) critique the ideology of openness associated with these technologies and suggest that increased visibility and persistency of information creates tensions, between visibility-invisibility (of information), engagement and disengagement (understood as attention allocation), and sharing and control (of knowledge), which employees have to navigate. For instance, the increased visibility through enterprise social media provides insight into the accessibility of remote coworkers, yet the same affordance allows them to hide or avoid any disturbances. Hence, being visible is not always desirable.

Building on these tensions this study investigates how increased visibility of information affects employees' knowledge sharing behaviors. On one hand, employees can embrace the opportunity to make their work and knowledge visible. It might allow them to influence the impressions coworkers or managers have of them, especially in a dispersed context where limited physical interactions take place. On the other hand, making work and knowledge visible may also increase one's workload and immediate requests for information and assistance (Gibbs et al., 2013). Hence, cognizant of the possibilities of social technologies to increase intra-organizational knowledge sharing, this study centers on the question what will happen to employees' desire to become knowledge brokers in the organization when information and work practices become visible to everyone.

Typically, knowledge brokers are employees who participate in multiple groups within an organization and facilitate the transfer of information and knowledge between them, linking knowledge producers and knowledge providers across organizational silos (e.g., Meyer, 2010). Research has suggested that the activities of knowledge brokers can range across three categories namely; knowledge managers, linkage agents, and capacity builders (Meyers, 2010). These knowledge-brokering activities play a crucial role in organizational learning, innovation, and performance, yet little research investigated the role of intra-organizational knowledge brokerage.

Against the backdrop of increased visibility of information, knowledge brokering behaviors in global companies may be at stake. Many global organizations with a dispersed workforce tend to privilege knowledge brokering activities by facilitating cross-boundary knowledge sharing through social technology adoption. Yet, these efforts lead to increased visibility of information, knowledge, and work practices and this new technological reality may affect the importance and roles of these intra-organizational knowledge brokers. Tying back to the tensions discussed earlier, the visibility and persistency of information and knowledge may simultaneously facilitate the management, exchange and capital building activities of knowledge brokers as well as limit them because visibility can also lead to strategic ambiguity, less psychological safety, lower trust, and information and work overload. This study draws on a survey among 500 employees of global companies to examine the relationships and mechanisms through which social technological affordances are related to knowledge brokering activities.

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Keywords

Communication visibility; Knowledge Brokering; Social technologies

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3.02

AGENTIAL AND STRUCTURAL FACTORS THAT ENABLE AND CONSTRAIN PERSONAL INTERNET USE AT WORK: A DEPTH EXAMINATION OF WORKPLACE AUTONOMY

Julie Monroe

Newcastle University Business School, Newcastle upon Tyne, United Kingdom

This PhD research project is primarily concerned with the relationship between workplace technology use and work-life articulation. The technology under investigation is personal internet use at work, a kind of technology 'misbehaviour' at the individual level. Previous research suggests that men may be more inclined to use workplace internet for leisure or life project pursuits whereas women may be more inclined to use the internet at work to manage domestic tasks. Previous research also indicates that those in higher status jobs spend more time engaged in personal internet use at work. However, little is known about how technology is implicated in housework tasks, like food shopping or paying bills that individuals take to work. In this study, participants provide wide-ranging examples of managing housework on work time. For office workers, technology is ubiquitous in the labour process. At the same time, workplace technology is increasingly intangible partly due to mobile internet. Yet, employers expect workers not to be distracted by the surrounding technology. Furthermore, risks are presented that did not exist in the era of work that preceded internet technology because of, for example, the potential for surveillance inherent in the data storage capability of workplace IT systems. Unexpectedly, a number of participants in this study describe how their own technology (mis)behaviour has resulted in managerial scrutiny.

In this study, a stratified sample of respondents (across occupational class and gender) makes it possible to explore work-life navigation, labour market power and attitudes to technologies, examining how these impact on individual personal internet use at work. Office workers were recruited through non-probability, chain-referral sampling. HR managers were recruited through professional networking on social media. Analysis of the first 20 interviews with office workers in a range of occupations, reveals striking differences between those in middle-class and working-class jobs. Firstly, the majority of workers in middle class jobs have work-provided mobile devices, whereas those in working class jobs do not. Secondly, the latter group are much less likely to have access to a smart phone in work time. Thirdly and more significantly, when participants in working-class and middle-class jobs are compared, those in middle-class jobs are much more likely to provide examples of personal internet use at work. When participants in working-class jobs do describe personal internet use at work, it is more usually low risk examples like checking the news and weather. In comparison, the examples provided by those in middle-class jobs, such as making a credit card application or doing an online food shop from scratch, more often require a longer time commitment. However, while these surface level factors may offer some clues, they do not account for observed differences. The aim of this paper therefore, is to uncover possible causes for these differences. To this end, organisational factors that may enable and constrain personal internet use at work are examined, for example, how the rules and norms pertaining to internet use vary according to different groups of workers and different work contexts. Such variations may help to explain how autonomy is expressed individually in relation to personal internet use at work. Identified inequalities according to differential location in the labour market are important because of the role played by workplace technology in work-life articulation. The current study will produce a more complete causal account of personal internet use at work and argues for a levelled playing field where all workers can enjoy equal access to technology goods at work regardless of occupational status.

Keywords

ICTs, work-personal life relationship, personal internet use at work

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3.03

NEGOTIATING THE SOCIOTECHNICAL PRACTICES OF COMMUNICATION IN LTC WORK

Antti Hämäläinen, Helena Hirvonen

University of Jyväskylä, Jyväskylä, Finland

Care professionals are subject to a growing amount of ICT-mediated accountability work. In recent years, development of documentation and also communication practices in care work settings has focused on Electronic Health Records (EHRs). There are expectations that adoption of EHR in Long-Term Care (LTC) can reduce medication-related errors and improve clinical documentation and coordination of information exchange in healthcare settings, leading to improved resident-centered care.EHR has changed the nature of reporting from human-to-human interaction (social ritual) to a sociotechnical system (Galatzan & Carrington 2018). Principles and practices of electronic reporting are controlled in workplaces as EHR now serves as the main vehicle for ensuring workers' professional accountability.

Currently very little or no time is officially allocated for day-to-day oral reporting in LTC units, while (nursing) research is primarily concerned with the structure of the hand-off between shifts but not the actual content of the messages that are exchanged between workers (Galatzan & Carrington 2018). Studying care professionals' experiences of EHR is crucial also in that EHR also affect the relations between the workers and the cared for. By standardising the information recorded and applied in care settings, the relational and individual aspects in the heart of caring may become less emphasized, which also hasn't been sufficiently researched.

Our paper aims to fill these gaps by drawing from a qualitative interview study (n=25) conducted with Finnish LTC workers in 2018. It analyses how LTC workers negotiate and interpret sociotechnical practices of documentation and communication at their workplace. What are the contents and uses of oral reporting in relation to EHR, and how do LTC workers weight the benefits of each of these? How do these practices impact LTC workers' professional agency and relations with elderly residents? In the intensive service housing (ISH) units where we conducted our interviews, "structural recording" of residents' daily events was heavily encouraged, meaning that certain rather rigid categories were expected to be used for all residents. Meanwhile, oral reporting practices have remained somewhat neglected area of research. Oral reporting remains "a historic remnant" (Lämsä 2013) that is far less regulated.

The findings suggest that despite the heavy emphasis on prioritizing EHR as a means of documentation and communication, oral reporting remains crucial in day-to-day work of care professionals for a variety of reasons. It works as a bridge to prevent communication breakdowns, and as a means to discuss information that workers do not wish to and/or have no time to report in EHR, such as difficulties they have faced during their shift and non-medical information about residents' condition. The rigid documentation of ISH residents' care improves accountability, as is intended when adopting EHR. However, the interviewees also reported that the lack of time to document to and read from the EHR system leads to narrow and technical information of the cared for. Oral reporting may therefore facilitate LTC workers' professional discretion and reassert their professional agency by offering alternative/additional means of "unwritten documentation".

Keywords

Care work, Ageing, Technology

3.04

WHY NOT USE THE PHONE – DIGITALIZATION AND NURSES' COMMUNICATION IN A LARGE HOSPITAL

Minna Salminen-Karlsson, Diane Golay

Uppsala University, Uppsala, Sweden

When comes to digitalization of nurses' work, electronic patient records and medical technology have been in focus. This paper looks at something that has been seen as more peripheral but that, nevertheless, has a profound impact on nurses' daily work, in particular in large hospitals: internal communication that is mediated by computer systems.

The paper is based on fieldwork and group interviews in one large hospital in Sweden. The focus of the research project of which this paper is a part is the impact of digitalization on nurses' work environment. Both certified nurses and assistant nurses took part in the fieldwork and observations.

Computer mediated communication has increased rapidly in healthcare. Electronic patient records are one form of such communication: different professions treating the same patient use ito store information and retrieve information about the treatment process. This communication tool is mainly used by the healthcare professions. However, to communicate with different service functions in the hospital, the nurses were obliged to use a number of different systems.

By the participants in the study, the obligation to use these messaging systems was taken up as a major stressor and their efficiency was repudiated. These complaints were illustrated by absurd or dramatic examples. Also during the fieldwork, problems with using the messaging systems became evident. While both design and functionality problems with the systems were exemplified, the complaints were frequently concluded with a question why these systems should be used at all. A common opinion, concerning communication with service functions, was that the systems were used to make the work of the service units easier, but that they disrupted the core task of the hospital, the medical carework, in a way that should not be permissible. The nurses thought that using the phone to order internal services was a much more efficient communication channel for them. In particular, they were indignant when service functions seemed to show no understanding for a patient's situation.

Computer-mediated internal communication in a hospital can be seen as positive in that it structures information flows and task allocations, it secures quality by producing traces that can be used for verification in case mistakes are made, and it produces information that can be used in administrative processes, for example when calculating resource allocations. However, introducing these communication systems does not take into account the practicalities of carework. Effective use of such systems count on a different temporality than what is prevalent in the everyday work of nurses.

The temporality in nurses' work implies that work pace is high, work is often disrupted and can only partially be planned, several work processes exist in parallel and prioritisations often have to be made on short notice. Even a well-functioning structured messaging system (in contrast to the problematic ones that these nurses had encountered) requires a form to be filled in with certain information, which sometimes is necessary and sometimes may be superficial, and, thus, generally requires writing time. There is normally a time interval between sending the message and getting a confirmation (if a confirmation is received at all), which implies further mental overload and difficulty to prioritise. Some information, for example related to the urgency of the message may not have a proper place in the form, or may not go through with sufficient emphasis. In such conditions a telephone is more suitable. Often the nurses used both a messaging system and a telephone in parallel, when this was possible, i.e. they sent the required message but made a telephone call to get a confirmation and to possibly give information that was not easily put in the form.

The introduction of computer systems for internal communication in a hospital is yet one step of trying to transform care to production, in terms of new public management. Computer mediated communication systems contribute to the efforts to transform the interactive, unpredictable and individual conditions of care, to predictable, impersonal and scheduled conditions of production. Nurses, who are responsible for the care (rather than doctors, who are responsible for the more limited concept of treatments) are the ones whose everyday work is most affected by this. Their apprehension that in the mandated communication patterns the concerns of administration were prioritised above the concerns of care was reasonable. The concerns of administration fit much more nicely in the structured way of producing care that is the political vision of today's healthcare. However, the while following the mandated routines would make the communication in the healthcare organization more streamlined, without nurses' concerns and their pushing the boundaries, it would make hospital care less effective and cause patients more suffering.

Keywords

nurses, computer-mediated communication, temporality

3.05

DIGITALIZATION-RELATED COMPETENCIES: A CLOSER LOOK ON MIDDLE MANAGERS

Dennis Grenda

Turku School of Economics, University of Turku, Turku, Finland

Digital innovations like machine learning, artificial intelligence and big data analysis are creating opportunities, and firms in every industry need to use technological advances to stay competitive and to survive. This increases the demand for digital skills and competencies. However, global surveys have consistently shown that many managers struggle to embrace digitalization and only a small number of companies feel they have strong digital leaders in place. The main reason is that managers often lack competencies to understand digital issues. Furthermore, HR managers are increasingly

concerned about the kinds of skills needed for work 2021 forward. The existing body of research on competencies suggests that charisma, political skills or cognitive abilities are necessary for managers to lead effectively. Such approaches, however, have failed to address the importance of digital competencies that seem to be more relevant today. Nowadays, the focus of managers must be on developing competencies related to digitalization that will allow them to become digital leaders. This research will shed light on what are digitalization-related competencies. In particular, it aims to answer the following research question:

What are the competencies required for middle managers in a digital era?

To answer this research question, a qualitative approach, consisting of two steps, will be adopted. In the first step, a secondary data analysis is being conducted in the form of a systematic literature review. A range of leading management journals, including Academy of Management Journal, Journal of Management and Leadership Quarterly will be scanned for key words such as “competencies”, “industry 4.0”, “digitalization” and “middle managers”. This step will provide a focused assessment of the current state of the art as regards the main research question that is paralleled by the development of the theoretical framework of the study. The theoretical framework will present the development of management theories, the basics of competence models and the relevance and effects of digitalization and digital transformation. In the second step, primary data in the form of semi-structured interviews will be collected. The interviewees include middle managers from selected companies in Finland. The potential case companies operate in innovative industries such as electronics and consulting and are digital front-runners. Two case companies are targeted at present. Approximately 50 managers from the selected companies in Finland will be asked about new skills and competencies for middle managers as well as elements of successful digital transformation strategies.

It is expected that this study will help organizations, especially Finnish firms who participate in the study to identify their basic managerial competencies and provide guidance on restructuring their managerial develop- ment and training programs. Additionally, the identification of digital competencies can greatly help business managers to improve their own skills and thus better cope with digitalization.

Keywords

digitalization, digital competencies, middle managers

4.01

A MILESTONE FOR THE LONG AND WINDING ROAD TOWARDS EFFECTIVENESS WITH AUTOMATIZATION

Maija Vähämäki[1], Maarit Laiho[1], Tero Kuusi[2], Martti Kulvik[2,3]

[1]Turku School of Economics, University of Turku, Turku, Finland. [2]Etla, The Research Institute of the Finnish Economy, Helsinki, Finland. [3]Dept of Neurology, Helsinki University Central Hospital, Helsinki, Finland

In this paper we tackle the challenge of measuring true productivity effects in a governmental payment service organization that has developed and applied digital robotics. To this end, we combine sociologic and economic research tools and traditions, as none of them would suffice alone. We also introduce a novel approach to work analysis, calling it the digital job profile. Our study contributes to the discourses of management control and of adaptation to working-life change.

Significant efforts are put into the development of automatization in services, leading understandably to an acute need of tools by which the net effects of automatization can be estimated. Traditionally, measurements have concentrated on the performance of the automatized part of the service. However, the road towards automatized services is a multi-layered process involving complex factors outside of the automatization itself – with human workers resiliently staying at the core of organized service production.

The aim with digital robotization is to automate simpler tasks and thereby to lighten employees’ workload and speed up the process. The shifting towards such hybrid service production brings new challenges to correctly assess and measure the impact of the change. To get a deeper understanding of our case’s automation process, we approach from a multitude of angles the complex picture of working effectively in an organization that is going through constant technical and organizational changes, and the challenge of measuring effectiveness of work in such a complex context.

We carried out a multimethod research in a large organization producing accounting and payment services. The research consisted of both quantitative and qualitative analyses performed as a dialogue. For the quantitative analysis we extracted data from a variety of digital company-internal data banks, and utilized a novel analysis framework that quantifies efficiency as well as individual variances in the entire work process. Parallel to that we run focus group discussions with employees and planning managers in order to shed light on the employees’ meaning making of working with robots

and the learning requirements caused by constant changes. This contextual analysis was also critical for understanding the possible less favourable results of productivity measurement as such.

Our findings suggest that the symbiosis of the human and the technology is still to some extent hazardous and shakes the (much-hyped) rational picture of the productivity of technological change. Therefore, organizations should consider the situated context when they evaluate the results of their automatization processes. Overall, our results suggest that the hybrid-like service production by man and machine combined induces challenges to work, its productivity, and the assessment of return to investments in automatization. To overcome the challenges, both managers and workers need support when digitalization changes work – to which our combined approach seems to offer one step forward.

Keywords

productivity measures of automatization, learning demands, mixed methods

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4.02

ERGONOMIC AND PRODUCTIVE DESIGN OF MODERN HUMAN-ROBOT-COLLABORATIONS

Sascha Stowasser

ifaa - Institut for Applied Work Science, Duesseldorf, Germany. Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany

Collaborative robotic systems are seen as an important technology that has become established as part of Digitalization, Smart Manufacturing and Industry 4.0. Collaborative robots are characterized by the fact that they work directly with humans without protective devices such as fences. There is no distinction between a working space for the robot and one for the worker. Rather, both interact in a common space; in addition, touches are explicitly necessary in terms of process technology. For example, the worker grasps the robotic arm to guide it to a specific location above the workbench. He/she gives the robot to understand that the robot should grab a component at this particular location. Subsequently, finished components, which have been processed by hand, can be placed in this position and gripped by the robot, for example, to put them in packaging units. From this, versatile potentials for the design and organization of work derive, making activities less stressful and ergonomically more favourable for humans. The use of the human-robot collaboration (HRC), however, also has to be productive, efficient and ultimately economical from a process engineering perspective. In order for this to succeed in practice, the qualification of the personnel has an essential role to play. It is only through sufficient qualifications that it is possible to ensure that the use of HRC is economical on the one hand, while at the same time guaranteeing the high safety requirements for HRC workplaces.

The article presents a process model for ergonomic and economic introduction and work system design of HRC based on ISO 6385. Basic features of workplace ergonomics are defined in the work organization. The technical possibilities and limits of collaborating robots have to be taken into consideration. In addition, it is already determined here which activities remain with the employees and which qualification requirements for their execution result with the robot. Essential here is the observance and implementation of necessary safety precautions in accordance with legal and normative requirements. In particular, with regard to the implementation of ergonomically designed HRC workplaces - or the use of MRC to improve ergonomics at workplaces - it is also important to pay attention to technical features of the robotic systems.

Another focus of the article is on possible qualification approaches and their benefits. Essential for the successful design of the production work with HRC is the qualification of the people who work with robots and thus become “colleagues”. These begin with the involvement of the employees in the planning phase, if collaborative robots are to be acquired for their jobs. In addition, they focus on theoretical and practical training for dealing with HRC applications, ideally at model workplaces or at one’s own workplace after installation of the robots. The focus here is on safety-relevant aspects, which are the prerequisite for a non-injurious handling of HRC. Furthermore, an early transparent communication to sensitize for the introduction of collaborative robotics and the resulting qualification measures is indispensable to prevent fears and resistance and to create an open and motivating learning culture for the employees.

Keywords

Human-robot collaboration, digitalization, new form of work

4.03

ROBOT TEAM MEMBERS CHALLENGE THE IN-GROUP IDENTIFICATION WITH THE WORK TEAM

Nina Savela[1], Markus Kaakinen[1], Noora Ellonen[1,2], Atte Oksanen[1]

[1]Tampere University, Tampere, Finland. [2]University of Helsinki, Helsinki, Finland

The recent advancements in the field of interacting social robots and the efforts to develop more collaborative robots will, if successful, force humans to work more closely with robots than before. Working on a team with robots could influence social interaction and social processes among the workers in the organisation. This social psychological study investigated whether introduction of robots as coworkers has an impact on in-group identification with the group. The hypotheses were as follows: H1a) Having a robot as an in-group member is associated with lower group-level self-investment in the team, H1b) self-investment decreases when the proportion of robot members increases, H2a) having a robot as an in-group member is associated with lower group-level self-definition, and H2b) self-definition decreases when the proportion of robot members increases.

To investigate this, we conducted a survey experiment and collected a data sample from U.S. participants (N = 1049, 50.97% female, mean age 37.15, SD = 11.67). The participants were asked to imagine a hypothetical situation in which they were assigned to a work team at a new job based on merit. The first group was told that the four other members of the team were robots, and the second group was primed with a team of one robot and three other people. The third group was not primed with robots but were told that the team consisted of four other people; hence, they were the control group. In-group identification with the work team was measured by an instrument that includes questions about group-level self-investment and self-definition.

Our hypotheses for the experiment were confirmed. Having a robot on the work team was associated with lower in-group identification than being a part of a work team consisting of only humans. Furthermore, being the only human on the team resulted in even lower in-group identification than having just one robot on the team. The results suggest that introducing a robot as a teammate will result in difficulties for the human workers in terms of identifying with the same in-group, which may challenge the collaboration and desired benefits from utilisation of robots in the workplace.

Keywords

human–robot interaction, in-group identification, work team

4.04

HEALTHY SOFTWARE DEVELOPERS EQUALS HAPPY WORKPLACE

Mirva Hyypiä[1], Outi Tuisku[1], Outi Sieve-Korte[2]

[1]Lappeenranta-Lahti University of Technology LUT, Lahti, Finland. [2]Tampere University, Faculty of Information Technology and Communication Sciences, Tampere, Finland

The modern working environment has become a hectic place, where there is a constant need to stay on top of recent advancements and handle a variety of tasks within a tight schedule. Experts are experiencing stress and fatigue at increasing levels. The problem is the most notifiable in the field of software development, where demands come from a variety of stakeholders and the need to learn new technologies and update expertise is highly emphasized. Constant time pressure combined with demotivating tasks will quickly lead to poor well-being at work, which can soon escalate to bigger problems affecting the society at large.

According to the Association for Finnish Work and Made by Finland campaign survey (2017), the well-being of Finland during its 100-year period of independence has been built with work. This will be the case in the future, but it will also get new forms, where the significance of competence and standing out from the rest will increase. Quality of education and comprehensive implementation and use of technology, on both the societal and individual level, are the foundation for developing knowledge, innovations and working life not only in Finland but in Europe and the world, too. Moreover, there exists considerable lack of software engineers already in Finland. To be precise, 7000 new experts from software development are immediately needed. It is estimated that in Finland in 2020, the lack of software engineers could be more than 15 000. Essential attention should focus also on the leadership and well-being of employees. Furthermore, the emotions and feelings and most importantly, understanding them, have a huge impact on both the leadership skills and the motivation of an employee. Therefore, we aim to study how to do the work of software engineers smarter and more personalized as well as considerably more attractive than it has lately been.

The aim of this study is to improve well-being and leadership at work, thus increasing the happiness and productivity of employees, improving profitability for the organizations, and enabling equality at work in the context of software development. Our hypothesis is that well-being of the employees can be improved by ensuring a high level of motivation and that required effort needed for tasks fits the available schedule and time. Thus, our goal is to develop novel methods where task allocation can be supported by multi-source data. The goal is to combine psycho-physiological measurement data with software repository data to create an understanding on how motivational levels of employees show in how they perform tasks and the quality of their work. Further, data from leadership and teamwork practices with workshops, interviews and surveys will be conducted. Using a mixed method studies to combine the results from data analyses to leadership and teamwork theories and studies, we aim is to create practical mechanisms that will aid leadership in organizations to both improve the efficiency of employees and most of all increase the well-being at work.

The main scientific contribution of this study is targeted to research on concrete mechanisms supporting well-being at work, thus supporting to equal prospects for well-being and sustainable employment. This study uniquely combines and will have important scientific contributions to the leadership theories, knowledge on human-computer interaction, data analyses, the utilization of intelligent algorithms, software development and practical applications in software development organizations.

Keywords

Software development, well-being, leadership

4.05

HOW ARE JOB RESOURCES AND DEMANDS ASSOCIATED WITH PERCEIVED BENEFITS OF TECHNOLOGY AT CUSTOMER WORK IN A FINANCIAL ORGANIZATION?

Sanna Nuutinen[1], Salla Ahola[1], Juha Eskelinen[2], Riitta-Liisa Larjovuori[1], Kirsi Heikkilä-Tammi[1], Markku Kuula[2]

[1]Tampere University, Tampere, Finland. [2]Aalto University, Helsinki, Finland

Introduction

In financial industry, the use of digital channels for interaction with customers has been increasing enormously due to an advanced communication technology. Therefore, in financial sector, it is highly critical that employees are capable of serving customers through digital channels and perceive these technological tools to benefit interaction with customers. Benefits of technology at customer work can be defined as employees´ perceptions of enhancing interaction with customers by utilizing digital communication channels (Tarafdar, Pullins, & Ragu-Nathan, 2015). Studying the factors associated with a higher level of perceived benefits of technology at customer work is extremely important because it may facilitate the delivery of superior service to customers and organization's ability to maintain durable customer relationships.

In line with Job Demands Resources (JD-R) Model, we propose that job resources may boost perceived benefits of technology at customer work, whereas job demands (e.g. techno-overload) require extended efforts and thus may impede perceived benefits of technology (Day, Scott, & Kelloway, 2010). Job demands refer to those work related stressors that require from employees sustained efforts in order to manage work tasks. In contrast, job resources refer to enabling factors that have a positive effect on reaching the work goals (Demerouti et al., 2001). As far as we know, the job demands and resources associated with perceived benefits of technology has not yet been studied, especially, in the context of financial sector. The aim of this paper is to examine the effects of three types of job resources (job control, learning possibilities at work and participative management) and job demands (techno-overload) to perceived benefits of technology at customer work.

Methods

The data was collected in Nordea Life Insurance Company and four regions of Nordea Personal Banking in 2017. The data consists of 643 respondents (response rate 63 %) working in different job roles. From both organizations, financial experts and supervisors were included. In addition, from bank, the data included service advisors working in a contact center helping customers via online channels, and financial advisers focusing on the needs of customers applying for loans. Data on job resources and demands and perceived benefits of technology were collected by means of an online survey questionnaire. The linkages between job resources and demands and perceived benefits of technology were analyzed using hierarchical regression analysis. In our model, we controlled for age and organizational position (supervisor, financial expert, financial adviser and service adviser).

Results

Hierarchical regression analysis indicated that techno-overload was strongly related to a lower level of perceived benefits of technology, explaining 10 per cent of variance of perceived benefits of technology at customer work. Moreover, as regards job resources, learning possibilities at work and participative management were related to a higher level of perceived benefits of technology at customer work, explaining altogether 6 percent of perceived benefits of technology. However, job control was not related to it. In addition, it turned out that supervisors estimated the potential benefits of technology at customer service work more positively when compared to respondents in other job roles.

Conclusions

The findings indicate that in addition to reducing the effects of techno-overload, organizations should also pay more attention to increasing job resources, especially enabling learning through work and fostering participation of employees by giving them possibilities to bring forth opinions about planned technological advancements. If employees perceive technology as a factor that complicates their work, they are also less likely to consider technology as beneficial in customer interaction, which may, in turn lead to lower customer satisfaction. In conclusion, this paper demonstrates the direct effects of job resources and techno-overload to perceived benefits of technology. However, based on the JD-R Model, future studies could further investigate the role of well-being at work for the relationship between job resources/demands and benefits of technology.

Keywords

financial sector, benefits of technology, job resources

4.06

THE IMPACT OF ROBOTS ON EMPLOYMENT AND LABOUR PRODUCTIVITY – EVIDENCE FROM SEVEN EUROPEAN COUNTRIES DURING 1993-2015

Merja Kauhanen

Labour Institute for Economic Research, Helsinki, Finland

Rapid technological change including robotisation, digitalization and artificial intelligence is transforming labour markets and the structure of employment. As regards labour markets this development has also raised concern about its impact on employment and technological unemployment. The estimates given by different experts and evaluations differ as to how many jobs are threatened by this development in the future (see Brynjolfson and Mcafee 2014; Frey and Osborne 2013 & 2016; Autor 2015). There is relatively much earlier research on the impact of ICT on employment and its structure, but still much less research on the impact of robots on employment and productivity.

The aim of this paper is to provide new empirical evidence on the impact of an increased robot usage on employment and labour productivity in six European countries between 1993-2015 and thus contribute to the developing literature on the labour market impacts of robotisation.

The analysis utilises robot data on industrial robots combined with employment and other relevant data from EUKLEMS. The seven European countries that are (so far) used in the analysis are Germany, France, UK, Italy, Spain, Finland and Sweden. These are countries for which there is data available for all the years between 1993-2015. We analyse the employment and labour productivity effects of robotisation for the whole period but also separately for the subperiods 1993-2007 and 2008-2015 of which the latter also includes the financial crisis years of 2008-2009 and the recovery period after that. We utilise OLS and IV regressions in the empirical analyses.

The preliminary results suggest that there is a negative impact of robots on hours during the period 1993-2015 for the seven countries used in the estimation when controlling for the country fixed effects and initial wages and capital-labour ratio. The impact is negative and statistically significant but very small. As regards the impact of robot usage on labour productivity we find small positive impact of robot usage on labour productivity.

Keywords

robotisation labour productivity employment

4.07

MEASURING AND DEVELOPING WELL-BEING AND HUMAN PRODUCTIVITY WITH QUALITY OF WORKING LIFE INDEX

Marko Kesti, Aino-Inkeri Kuula

University of Lapland, Rovaniemi, Finland

Work conditions have changed widely during the last years and there is much talk about the future of work. To be able to face the new challenges, that e.g. digitalization brings, organizations has a need to predict the future. Therefore, managers need measured information about the direction of organization's employees' performance and business development. Managers also need to know how to improve this development.

Studies indicates how well-being had tendency to predict business value of an organization (Wright & Bonett 2007, Wright & Cropanzano 2004). Quality of Working Life (QWL) contains the combined effect of employees' well-being and quality of workplace. QWL is a parameter at the production function in Human Capital Production Function (HCPF), thus it is as important as the number of employees and working time. In HCPF, QWL index indicates how HR-development effects on business. Therefore, when measuring QWL, organization is able to predict business development and thus support strategic decision making in constantly changing situations.

QWL is formed by using human sciences and motivation theories. It relies on three self-esteem categories, which are derived from motivation theories. Those are Physical and Emotional Safety (PE), Collaboration and Identity (CI) and Objectives and Creativity (OC). Leaders can improve these self-esteem factors by using good HRM-practices. The aim is that self-esteem factors are better and therefore, the QWL index rises as well. That effects on organization's business performance by increasing it, when conditions in markets are favourable.

Measuring QWL gives more accurate information about human productivity and business than traditional staff surveys. Those surveys uses statistical mathematics and average values when analysing human performance and well-being. These methods may give over simplified and harmful information to managers. When using average values, survey states that all self-esteem factors increase linearly hand in hand. However, each human factors affects differently to the QWL.

When the average value of all the self-esteem factors are 75 %, traditional staff survey indicates that well-being and human performance is 75 % in the organization. It states, that the situation in the organization is good and the potential to improve is not significant. However, QWL effect on business performance is not linear. It is calculated with function QWL= PE * (CI + OC)/2).

In addition, self-esteem factor may have non-linear connection to performance. Therefore, while average value is 75 %, QWL may be only 61,8 %. It indicates that there is great potential to improve human performance by using good HRM practices.

Measuring QWL more often than once in a year supports performing during the challenges that future brings. Strategic HRM and constant improvement are the key when creating business value. Even using HR practises steals working time, it will pay effectively back as increased QWL and better business value.

Keywords

Quality of working life, productivity, human performance

5.01

EXPLORING THE IMPACT OF CULTURE ON INTERGENERATIONAL KNOWLEDGE SHARING IN A SOUTH-KOREAN ORGANISATION

Lea Wöbbekind[1], Christa Womser-Hacker[1], DoWan Kim[2]

[1]University of Hildesheim, Hildesheim, Germany. [2]Pai Chai University, Daejeon, Korea, Republic of

Researchers view knowledge as an essential organizational asset for corporate success for companies. Over the past decades, many studies explored the management of knowledge in multinational companies. Nowadays in the context of demographic change, intergenerational aspects

and age become more crucial factors for knowledge transfer. Workforces are becoming older and more diverse regarding age. It is necessary for organizations to avoid the loss of knowledge due to the retirement of older employees. However, this is not an easy task due to the intangible character of knowledge. Individual and organizational knowledge differ in several characteristics as well as different transfer mechanisms. In everyday situations knowledge transfer happens between individuals of different generations. However, it remains unclear how cultural attitudes affect knowledge sharing and interaction of individuals with information It involves the question how humans seek and utilize work related knowledge and experience. Moreover, the impact of (cross-generational) human behavior regarding the use of channels and sources of information is still unknown. The purpose of this study, in context of the German-Finnish KNOWISH project (University of Hildesheim and Åbo Akademi), is to present new insights about the impact of culture and age towards knowledge transfer in Asian companies. Based on existing knowledge sharing studies, qualitative semi-structured interviews at a South-Korean organization were conducted to examine influencing factors for knowledge transfer in a research institute regarding the following research questions:

- Which generational aspects appear in the South-Korean company?
- How does knowledge sharing unfold?
- What is the impact of culture to intergenerational knowledge sharing?
- Is it possible to transfer qualitative research methods in a non-Western country?

To understand knowledge management, the data were analyzed and compared with two case studies, examining the same research questions in two German companies. A literature review shows that more empirical research needs to be done to explore the advantages and disadvantages of conducting qualitative research, like interviews in a non-Western country like South-Korea. The empirical approach illustrates multifaceted issues with regard to trust, self-reflection, indirectness as well as the formulation of questions.

The German participants describe a non-hierarchical system of young and old employees. Both groups are supposed to be knowledge carriers. Therefore, knowledge sharing happens mutually between them. Maintaining an orderly and harmonious society, based on Confucian philosophy, is highly relevant at the South-Korean work place and forms the relationship of generations. The appreciation of seniority is integrated in a three stage age system: The classification of young, old and elder employees in organizations. This hierarchical system is based on chronological and professional age, status and position in the institute and shows the impact of hierarchy on work life. The results show that Germany and South-Korea have unique and different concepts of knowledge sharing. Especially for South-Korea, a multiplex concept of age could be revealed. The study also revealed interesting insights about characteristics of each generation, which support the theoretical framework of generations. Generally, cultural aspects have a high impact on knowledge sharing among generations.

Keywords

Intergenerational knowledge sharing, culture, demographic change

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5.02

GROUNDED THEORY STUDY ABOUT SELF-ORIENTED CAREER CHANGE PROCESS

Leena Ikonen

University of Jyväskylä, Jyväskylä, Finland

This is an on-going grounded theory study about self-oriented career change process. Career change is currently a common phenomenon in Finland due to the quickly changing work-life. A changing work-life requires the employees to develop their skills and to keep competences up to date through education and training. The research aim is to gain insight into the career change process of adults enrolled in vocational education programs and on this basis to conceptualize career change process as a whole.

The employees need to re-evaluate and develop their competences in order to meet the demands of the labor market, which leads to change the career. This study explores particularly drivers and forces that promote the transition to another vocation, which are defined here as triggering elements. Triggers aim to the career change and they have a positive and pushing forward influence on the career change process broadly. The aim is also to examine the process of career change in general, and in particular to study re-employment alternatives after career change. Research questions addressed here are: what are the triggers behind the career change? What are the alternatives for re-employment after career change? What is the career change process?

Participants of the study shift to another profession through vocational adult education and training (VET). They have already acquired career in

another vocational field before enrolling in to the training. Open interviews of adult vocational trainees have conducted, and the data have analyzed using classical grounded theory method.

Keywords

career change process, grounded theory, vocational adult education and training

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5.03

DEVELOPMENT OF PSYCHOLOGICAL READINESS OF FUTURE SPECIALISTS FOR SHIFT WORK IN THE ARCTIC

Yana Korneeva

Northern (Arctic) Federal University, Arkhangelsk, Russian Federation

The study was carried out with the financial support of the grant of the President of the Russian Federation for state support of young Russian scientists - candidates of science (MK-6409.2018.6). The extraction of oil, gas and other natural resources is carried out in the extreme natural and climatic conditions of the Far North and the Arctic, which causes additional difficulties in their development and ensuring the safety of the production process. People adapt differently to such conditions in different ways, which makes it necessary to take this into account when building a personnel management and labor protection system. The research aim is the development and approbation of technologies for the development of psychological readiness for shift work in the Arctic conditions for students of the Higher School of Energy, Oil and Gas to improve their adaptability, efficiency, safety and satisfaction with their work.

Also, to develop the school's program, relying on the components of psychological readiness for professional activity, we identified the most important professional competencies that are necessary for the successful implementation of professional activities in rotational work organization: stress tolerance, decision making, result orientation, analytical thinking, responsibility, planning, conflict resolution.

As methods, there were psychological training and active forms of training, as well as questionnaires, interviews and psychological testing of students. The result of this work is the developed and approved program of trainings of students of the Higher School of Energy, Oil and Gas to improve their psychological competencies. Our presentation will show the experience of training both young specialists working on the oil and gas fields, as well as students of the senior courses for a number of psychological competencies. These include: the ability to solve complex and non-standard situations during the shift period (not only professional, but also household), the development of stress resistance, increased communication skills, a change in attitude towards one's activities, increased responsibility for safety at production facilities, etc. All technologies are presented in the form of trainings and practical exercises. The presentation will also present a project for the implementation of an out-of-school scientific and practical school for students "Work on the Shift: Success and Health".

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Keywords

career change process, grounded theory, vocational adult education and training

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5.04

TRANSITIONING FROM EDUCATION TO EMPLOYMENT IN THE ASIA PACIFIC

Subas Dhakal[1], Prikshat Verma[2], Alan Nankervis[3], John Burgess[3], Julia Connell[4], Alan Montague[5]

[1]Curtin University, Perth, Australia. [2]Cardiff Metropolitan University, Cardiff, United Kingdom. [3]RMIT, Melbourne, Australia. [4]University of Newcastle, Callaghan, Australia. [5]RMIT, Melbour, Australia

As a part of a broader higher education policy reform agenda, countries around the world are focusing on building institutions that work-ready

graduates. On the one hand, it has been argued that in the knowledge economy, higher and vocational education will be the sought-after credential that high-skills employers require (see ETS, 2010). For instance, the economic performance of countries in Asia and the Pacific is vitally dependent on the development of higher education institutions (HEIs) that foster the knowledge economy (Usher, 2002). On the other, the growth in the supply of graduates is premised on the underlining assumption that a well-educated workforce is a backbone to economic growth and development (see Milligan and Kennedy, 2017). And yet, the employability of vocational and higher education graduates within the region has declined, as unemployed graduates and longer gaps from graduation to a regular career developing employment is becoming the norm (Dhakal et al, 2018). Many have been attributed the problem to the lack of work-readiness by graduates; that is not possessing the requisite skills and attributes to effectively transition into existing job vacancies (Austin, 2002). In response to these concerns, governments around the world have initiated new programs, employers have developed post-employment training and development systems, and universities have begun to accept the value of more practically-oriented curriculum and assimilative activities (Cavanagh et al., 2015; Hager, 2006).

Although global discussion concerning problems with graduate work-readiness (GWR) has become more prominent, they have been limited to government critiques and employer complaints about the quality of university courses and the attitudes of graduates, and largely presenting the problem as a supply problem in which graduates do not possess what the market requires in order to access jobs. (Rothwell and Rothwell, 2017). However, whilst it appears from the extant literature that many countries and industry sectors are experiencing similar work-readiness deficits; it is also clear that the meanings and applications of 'work-readiness' vary between programs and industry sectors, and that some countries are adopting more comprehensive, innovative and effective approaches to address transition challenges than others (Dhakal et al, 2018). The majority of studies to date have focused on the challenges of GWR from the western perspectives, and often for specific occupations (see Andrews and Higson, 2008; Crisp and Powell, 2017; Walker et al, 2013). Few studies, though, have tackled GWR policies and programs from stakeholders' perspectives in the Asia and Pacific region. It is in this context, the central question that this paper explores is: 'are some countries better than others in mitigating the barriers to enhance GWR and what policies and programs appear to be effective in improving transition?' The paper draws on official documents and reports to identify the key challenges and potential solutions to GWR in the Asia Pacific region. The contribution of the paper is the comparative assessment of GWR from one of the fastest growing regions on the globe, and its inclusion of a broad spectrum of national contexts from advanced, rich nations to emerging and poorer economies. These features allow GWR to be placed in different development and labor market contexts and provide an overview of the diversity of the programs that are being implemented to address GWR challenges.

Keywords

Graduate Work Readiness, Government Initiatives, Stakeholders

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5.05

BUILDING REAL MANAGEMENT SKILLS IN THE VIRTUAL WORLD

Peter Holland[1], Tse Leng Tham[2], (Christiana) Xiaoyan Liang[3]

[1]Swinburne University, Melbourne, Australia. [2]RMIT University, Melbourne, Australia. [3]Central Queensland University, Melbourne, Australia

Introduction

A number of challenges including globalisation, economic pressures, and the changing nature of work have combined to create a work environment that demands innovative as well as flexible training and development solutions to enable employees to have the knowledge, skills and ability to undertake their work immediately and effectively. Management simulations are a new virtual tool for creating and enabling (virtual) realistic and experiential learning environments to meet these challenges. This form of learning is learner-centred, where focus is placed on learning through taking action as opposed to studying how others may have approached the problem (Revans, 1978). Such means of learning have garnered increasing attention given its effectiveness beyond traditional "talk and chalk" methods (Rodigues, 2012). Simulations are generally defined as artificial environments that are carefully created to manage individuals experiences of reality, and technology has been central to the development of more effective training and development strategies (Lenders, Holland & Allen, 2017). There is a paucity of research on the impact and effectiveness of simulation-based training in the management field where the development of "softer" skills is increasingly emphasised (Lenders, et al, 2017). This research is designed to address this gap in the literature.

Simulation as a form of experiential learning

There is increasing interest in the use of simulations in action or experiential learning (Bell, Kanar, & Kozlowski, 2008). This is due to the fact that supported by technology, simulations can increasingly create or replicate complex social systems and environments (Otoiu & Otoiu, 2012), enabling participants to develop and rehearse problem-solving and creative-thinking abilities in a 'safe' environment (Sitzmann, 2011). Consequently, being able to make decisions in a virtual reality or 'safe' and supportive environment without 'real' repercussions or consequences becomes a key benefit

of simulation systems in experiential learning.

Significantly as Hallinger, Lu, and Showanasai (2010) found, simulation programs benefited individuals both with and without practical work experience, albeit in slightly different ways. They found that students with previous work experience were able to use their working knowledge to solve simulated problems and test their previous assumptions (Hallinger et al., 2010). In contrast, they found that students who lacked "real world" work experience Historically, simulation research has tended to focus on the use of simulation immersive technology (such as virtual realities) and experiential learning techniques to teach "hard" skills, such as military manoeuvres and medical procedures. More recently however, research has begun to examine the capacity of simulations to develop "softer" skills or attributes in individuals in the area of management and communication (see Koponen, Pyorala & Isotalus, 2012; Lucander, Knutsson, Sale, & Jonssons, 2012). The focus of the current study is centred on the latter.

Objectives of the Study

The study here focuses on the increasingly problematic issues of workplace violence (Bartlett & Bartlett, 2011). Whilst the issue has gained prominence in the field of management and management education, this type of behaviour is difficult to replicate in real-life situation to engage managers in an effective decision-making scenario. By capturing and comparing the experiences with the critical incident by our study participants and those of a control group, this study aims to explore the effectiveness of using management simulation as an experiential learning and training tool for the future of management education.

Methodology

A group of students were put in a situation in the simulator where they witness an incident. They then had the opportunity to interview all involved in the situation (played by actors). Their approach was recorded, analysed and assessed. In comparison, a control group in class was asked to watch a video of the situation and then asked to address the situation with no opportunity to interview the actors. Before the study each group undertook a questionnaire regarding issues associated with self-efficacy. This was then repeated 3 months later to assess the impact of the two approaches of training and development on the students.

Results

This paper reports on these findings and the impact of both approaches on effective skill development and self-efficacy around the issues of managing workplace violence.

Conclusion

Initial results of this study indicate simulation is a more effective approach to learning and development for "soft" skill development, particularly in dealing with issues of workplace violence.

References on Request

Keywords

Simulation, experiential learning, workplace violence

5.06

TASK COMPOSITION AND VOCATIONAL EDUCATION AND TRAINING – A FIRM LEVEL PERSPECTIVE

Anett Friedrich

Federal Institute for Vocational Education and Training, Bonn, Germany

In Germany, educational certificates determine the placement in the labour market. The majority of the German population over 15 years has obtained a degree in the vocational education and training (VET) system. Within the VET system particular the dual training system is characterised by relatively smooth transition from education to work. The dual system combines in-company initial vocational training and part-time vocational schooling. Firms act as gatekeepers who influence which school-leavers start an apprenticeship. The aim of my study is to examine the effect of firms' tasks composition on the decision to provide apprenticeship training and the educational level of new apprentices. So far, there has been little

discussion about the relevance of tasks for vocational education and training. I show that the task composition of firms influences their skill demand on apprentices.

Technological change leads to a decline in the demand of cognitive routine and manual routine tasks, whereas the demand for non-routine tasks namely analytic and interactive tasks increases (Spitz-Oener 2006 for Germany). Autor et al. (2003) argue that the adoption of computer technology led to a decline in the demand of cognitive and manual routine tasks since these tasks can be automated or outsourced. On the contrary, non-routine tasks gain in importance because they are not easy to automate. Theoretically, each skill group could perform all task. Nevertheless, high skill workers are more productive in performing complex tasks like analytic and interactive tasks than unskilled and medium skilled workers are (Autor 2013). Because they rely on high skill workers to preform non-routine tasks, I assume that firms with high shares of analytic and interactive tasks have a lower need for medium skilled worker with a VET degree. Therefore, they offer less frequent VET. In line with this assumption, I further hypothesise that in contrast a high share of routine and manual tasks comes along with a higher probability of offering VET.

According to Autor 2013, I hypothesise that medium skill workers will not disappear but have to perform a greater amount of non-routine thus interactive and analytic tasks. However, medium skilled workers with a VET degree show differences in skills depending on their school-leaving certificate. In line with Human Capital Theory graduates with an upper secondary school-leaving certificate (12 to 13 years of schooling, “Abitur”), acquire more human capital than graduates with a lower secondary (9 to 10 years of schooling, “Hauptschule”) or an intermediate secondary school-leaving certificate (10 years of schooling, “Realschule”). During the additional years of schooling, graduates with Abitur acquire further general skills, which enlarge their capabilities in complex problem solving and communicating. Following this argumentation, VET graduates with an Abitur have comparative advantages in preforming analytic and interactive tasks. Consequently, I assume that firms with a high share of analytic and interactive tasks hire more likely apprentices with an Abitur. On the other hand, these firms hire less likely apprentices with a lower secondary school-leaving certificate.

The study uses data from the BIBB Training-Panel, which is representative for German firms with at least one employee subjected to social security contributions. Because they include a special module of items about employees job tasks for low, medium, and high skill workers, I analyse the datasets of 2012, 2015 and 2016. I estimate a Logistic Random Effects Model. My first dependent variable is whether the firm provides VET and my second is if apprentices with upper secondary education are hired. The main independent variables are the shares of analytic and interactive tasks.

Overall, the results reveal that firms’ task composition has an effect on its decisions concerning VET. Although a high share of non-routine tasks does not influence firms’ decision to provide VET, firms with a high share of routine tasks are less involved in VET. Moreover, high shares of non-routine tasks come along with a higher demand of apprentices with an Abitur. The study contributes to the understanding of how technical change affects through the firms’ tasks composition not only employment but also transition from school to VET.

Keywords

Vocational Education and Training; Tasks; Firms

5.07

ECONOMIC GROWTH, YOUTH UNEMPLOYMENT, AND THE INFORMAL ECONOMY: A STUDY OF POLICIES AND OUTCOMES IN POST-ARAB SPRING EGYPT, MOROCCO, JORDAN, AND TUNISIA

Heath Prince[1], Yara Halasa[2], Amna Khan[1]

[1]University of Texas, Austin, Austin, USA. [2]Brandeis University, Waltham, USA

This study examines youth employment policies implemented in Egypt, Jordan, Morocco, and Tunisia following the Arab Spring, asking whether, after this series of massive social protests concluded, new policies and institutions have emerged to address the deep-seated and intensifying crisis of youth unemployment.

Given the importance of youth unemployment in driving the Arab Spring revolts, policy recommendations issuing from national governments and international financial institutions (IFIs) (and from bi-lateral aid agencies, to which we pay less attention in this study) should reflect the dramatically changed environment in the region after 2011. Accordingly, our primary research questions are: what new, innovative policies and programs have emerged since the Arab Spring that address youth unemployment; what factors motivate these policy choices, and; to what extent do economic growth prescriptions affect the domestic youth employment policies in the case study countries?

To answer these questions, we employ a mixed methods study, using a policy prescriptive approach to identify policy change, and to better understand

the implications of policies chosen, whether directly related to addressing youth employment, or indirectly related via economic growth-oriented policy choices. We also take advantage of the panel nature of data available for these countries, using fixed effects panel estimators, panel corrected standard errors estimators, and systems of Seemingly Unrelated Regressions to identify the effect that economic growth has had on labor force participation rates among youth in Jordan, Morocco, Tunisia and Egypt over the period of 1990 to 2013.

We find a wide range in new policies pursued, as well as in the institutional infrastructure required for effective implementation. Common across most of these countries, however, are impediments to policy creation presented by regional conflict, constraints on policy autonomy, and an inadequate number of new jobs created annually to absorb the rapidly increasing number of unemployed. In addition, we find that, across each of the countries in our study, economic growth, as measured by GDP per capita, appears to be unrelated to an increase in labor force participation rates among youth.

We see encouraging developments in the emerging social solidarity economy in Morocco and, to a lesser extent, Tunisia. Moreover, Tunisia's new constitution clearly acknowledges the importance of youth employment in not only reducing poverty, but also for strengthening social stability. In addition, Egypt's heavy investment in large infrastructure projects suggests a willingness to pursue public works projects in order to address that country's persistent unemployment crisis, and post-Arab Spring ministry-level initiatives underscore Jordan's interest in breaking with the economic growth-led policies of the past and focusing more directly on youth employment.

Keywords

youth employment; mixed methods; panel data modelling

5.08

YOUNG PEOPLE'S EMPLOYMENT PATHS AND WORKING LIFE GUIDANCE IN SCOPE

Mirja Määttä[1,2], Frida Westerback[3,4]

[1]Centre for Economic Development, Transport and the Environment, Jyväskylä, Finland. [2]University of Tampere, Tampere, Finland. [3]University of Helsinki, Helsinki, Finland. [4]Mathilda Wrede -institute, Helsinki, Finland

Modern labor markets open up new possibilities but also imply many challenges for young adults, requiring learning abilities and flexibility. Young people are more likely to find themselves in precarious labor market positions and lower employment security than the older population: adequate income is not guaranteed, even if they have jobs (Eurofound 2013; France 2016, 133–4). The poorer the educational background the weaker the labor market position (Myrskylä 2017). New forms of work also challenge their livelihood and cause gaps in income. All these uncertainties test the way social protection and benefits are structured in Finland: they are based on sector-specific and detached legislation and on earning full-time and stable salaries. (See Hiilamo et al., 2017.) National and international concern about a persistent share of young people who are not in employment, education or training (NEETs) has produced programs such as the Youth Guarantee.

The Finnish Governments (2011–2015; 2015–2019) have offered multi-agency face-to-face guidance services as one solution for these problems. One-Stop Guidance Center (Ohjaamo in Finnish) is a multi-agency, inter-professional service point where a young person, aged 15 to 30, can get help in matters related to work, education and everyday life. The Center employees want to stand apart from the outdated, bureaucratic and siloed service provision system as a youth-centered, flexible and holistic service (Määttä 2018). Many of the Centers trial digital services and co-operate actively with NGOs and businesses such as contract staffing agencies.

In our on-going follow-up research among 40 young adults (2018-2020), we ask how they evaluate Ohjaamo-services and their own working life prospects. In our presentation, we analyze the first round of interviews and the working life-lines the informants have drawn in the interviews. These illustrate their educational backgrounds and (un)employment histories, job-seeking and working life experiences. The preliminary analysis shows that some of these young adults have found a stable foothold in the job market, some of them are trying to find (new) careers, and some have repeated difficulties in finding paths to working life.

By presenting differing labor market entries we demonstrate what kind of opportunities and challenges do the modern labor markets and working conditions produce. We also analyze what is the significance of the guidance young people receive from One-Stop Guidance Centers. Does it open up paths to working life and if so, to what kinds of employment contracts?

Theoretically, our analysis leans on youth transition and life course studies, and it prepares us for the second round of interviews.

The preliminary analysis shows that the interviewed young people are pleased with the service they have received at the One-Stop Guidance Centers;

the services have met their needs for the most part. However, the One-Stop Guidance Centers alone cannot secure the paths to working life - more attention should be paid towards the labor market and the effects of short-term employment/training, insecure jobs and limited ability of the labor market to receive every young person. Foreign-born young adults, young adults with a disability or young people who have discontinued studies seem to have a hard time gaining a foothold in working life. The reasons for exclusion can vary, several welfare areas are affected and the solutions are rarely simple.

Keywords

guidance, labor market entry, young people

5.09

THE ROLE AND EFFECTIVENESS OF COACHING IN INCREASING SELF-EFFICACY, OUTCOME EXPECTANCIES AND EMPLOYABILITY EFFORTS OF HIGHER EDUCATION STUDENTS

Joanna Molyn

University of Greenwich, London, United Kingdom

This quasi-experimental, longitudinal mixed-methods research study examines the link between career coaching, career self-efficacy, and the employability efforts of Higher Education (HE) students. It investigates the effectiveness of career coaching in increasing students' career self-efficacy and their employability efforts. It also examines what aspects of the coaching relationship are most effective in changing students' career self-efficacy beliefs, outcome expectations and the employability efforts.

The study analyses the above factors in the context of the changing role of Higher Education. It argues that the role of Higher Education is to empower students and it explores whether there is a need for the post-1992 universities to address the issues of gender, ethnicity, perceived social support, socioeconomic status, cultural influences and gender role models in their employability strategy. It positions coaching as an employability enhancing strategic tool. Social Cognitive Career Theory is used as the main theoretical framework as it recognises the links between psychological and social effects of gender and ethnicity, the social-cultural environment and career opportunity structures.

The study finds that students reported many benefits of career coaching, despite the lack of statistical significance of the impact of the career coaching intervention. Ethnicity and the combination of gender and ethnicity are found to moderate students' career decision self-efficacy, vocational outcome expectations and their employability efforts. The study also finds evidence of students' perception of ethnic discrimination. The study explores environmental conditions and barriers that affect students' career decision self-efficacy, vocational outcome expectations and their employability efforts.

Keywords

coaching effectiveness, employability, social cognitive career theory

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5.10

MAKING EXPLICIT THE LINKS BETWEEN SECOND-LANGUAGE IDENTITY AND PROFESSIONAL IDENTITY CONSTRUCTION IN THE MULTILINGUAL WORKPLACE

Marise Lehto, Tuire Palonen

Turku University, Turku, Finland

In the increasingly multilingual world that we inhabit, there is a growing interest in second-language identity construction and ways of accommodating it to a professional identity, for example, at the intersection of second language and organisational studies e.g. ecology, practices, language as practice, workplace learning, and their contribution to identity/second-language identity construction. Although there have been numerous studies conducted into second-language identity, it remains a difficult and challenging construct to understand and is still under researched. Indeed, multiple definitions of language and identity abound across several disciplines, further contributing to the confusion. Furthermore, recent reviews of studies into multilingual workplaces and the participants' language practices in relation to their professional identity construction, argue for more focused attention and for explicit connections to be made between multilingualism and professional identity. In my doctoral research, I seek to answer current calls for studies to make more explicit links between the two levels of identity, in addition to integrating approaches across disciplines and subfields. This presentation presents preliminary findings from a review of the literature on the concepts that may support accommodation of a second-language/multilingual identity to a professional identity. The aim of this conceptual paper (in development) is to bring the two identity constructs into dialogue with each other from the perspective of higher education, organizational learning and second language, and develop an interdisciplinary conceptual framework that informs understanding of this complex issue.

Keywords

multilingual, professional, identity

5.11

SAME LEVEL OF EDUCATION - VARIOUS WAGE RETURNS? AN ANALYSIS OVER TIME AND ACROSS OCCUPATIONS IN GERMANY

Anett Friedrich, Sandra Hirtz

Bundesinstitut für Berufsbildung (BIBB), Bonn, Germany

Same Level of Education - Various Wage Returns? An Analysis over Time and across Occupations in Germany

Recently many studies broach the issue of educational attainments on wage returns and occupational effects on earnings. A large strand of literature deal either with the impact of educational qualifications on wage returns or with occupational effects on earnings (Bol & Weeden, 2015). In order to understand the usability of educational attainments in the labour market the literature provides competing hypotheses on varying wages within a level of education amongst them social closure theory, the skill weight approach and routine biased technological change. A subsequent question arises: Generate employees varying wage returns even though they have the same educational level?

We contribute to the current discussion concerning occupations and wage inequality by analysing the within variation of wage returns to education across occupations. A lot of research focuses on the effect of education or occupations and their impact on wage returns. However, previous studies have not dealt with varying wage returns to education for employees with equal educational levels, what is a relevant driver of wage inequality. We aim to shed light on this by analysing the occupation-specific variance of wage returns rather than absolute wage differences across occupations.

Empirical findings show (e.g. Blien & Hong Van, 2010) that employees with the same level of education do not obtain the same wages. Hence, the occupational context embedding labour market actors turns out to have a huge impact on wages and is responsible for variance in wages. Since individual investments in education are not paying off for all occupations. Due to occupational specificity (Forster & Bol, 2017) we expect to find a pronounced variation in wage returns for all educational levels. In line with the task-biased technological change (TBTC), we presume even increasing variations of wage premiums over time caused by changing job requirements and tasks.

Since the largest share of the German labour force obtained a vocational educational and training (VET) degree and university graduates represent a strongly rising group due to educational expansion, we examine variations in returns for VET and higher education. Further, focusing on VET and tertiary education allows us to take the majority of the German labour market actors into consideration. In order to tie educational levels and occupations together we analyse a hierarchical two-level multi-level model by nesting individuals in occupations. We report results for West-German male full-time employees with a VET degree either with or without Abitur as well as an applied university and university degree during the period 1976-2010. We refer to large-scale administrative data and use the Sample of Integrated Labour Market Biographies (SIAB). This allows us to estimate occupational-specific wage returns in our multi-level models for at least thirty-four years.

Our results reveal significant variance in the wage returns to education across occupations, which is stronger for employees with tertiary degrees than for VET graduates. For (applied) university graduates the choice of occupation prove to be more decisive regarding the obtainment of higher wage premiums compared to unskilled workers. Unexpectedly, the occupation-specific variance between VET graduates with and without Abitur differs not, implying that for VET graduates two more years of schooling (graduation from high school with Abitur) are not remunerated with higher wage returns compared to unskilled across occupations. Nevertheless, on average VET graduates with Abitur achieve higher average wage returns. Referring to the analysis of time-effects, we find for VET degrees slightly shrinking variance in wage returns, whereas for university graduates they remain almost stable over time.

Keywords

Variation of wage returns; occupation-specific returns to education; Multi-Level analysis

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6.01

OVERBURDEN AND POOR MANAGEMENT: WHAT MAKES EMPLOYEES IN OLD-AGE CARE CONSIDER QUITTING THEIR JOBS?

Lina Van Aerschot[1], Antero Olakivi[2], Jiby Mathew Puthenparambil[1], Teppo Kröger[1]

[1]University of Jyväskylä, Jyväskylä, Finland. [2]University of Helsinki, Helsinki, Finland

In Finland, approximately 30 000 employees with formal education for social and health care work are currently employed outside of their profession. Yet, employers' also face difficulties in recruiting new employees, especially in old-age care and the biggest cities in Finland. Job seekers do not find old-age care attractive, and quitting intentions among people working in old-age care are soaring, as reported in a recent study by Kröger et al. (2018).

Common knowledge explains care workers' quitting intentions – and their sharp increase – with deteriorating working conditions in old-age care in Finland. Due to austerity politics and the marketization of public services, care work is becoming increasingly burdensome in both public and private sectors. Overburden, however, is not the only problem that care organizations struggle with. The study by Kröger et al. (2018) also reports increasing problems in the management of care organizations that may increase quitting intentions even among care workers who are not overburdened.

Interestingly, there is little empirical research on the determinants that are related to care workers' quitting intentions – and their sharp increase in recent years – in old-age care in Finland. Internationally as well, research on care workers' quitting intentions has mainly focused on registered nurses in health care. In this study, we examine quitting intentions and their determinants in old-age care, drawing on a nation-wide survey collected in Finland in 2005 and 2015 (N=1500).

6.02

MAKING WORK IN OUTPATIENT CARE SERVICES MORE ATTRACTIVE WITH MOBILE DIGITAL DEVICES

Britta Busse

University of Bremen, Bremen, Germany

The situation of ambulant care workers in Germany

The care sector in Germany is already characterised by a shortage of skilled personnel. Moreover, it is subject to two striking demographic developments: on the one hand the population of the elderly outnumbers the younger ones. Additionally, a growing share of elderly people choses to live independently in their own homes as long as possible. This leads to a growing demand for trained care workers in the outpatient care. On the other hand, an alarming share (end of 2017: 40 %) of the personnel working in outpatient care is 50 years or older. Consequently, the gap between the demand for ambulant care workers and those who actually work in this sector grows.

The general framework for care workers is unattractive: care workers are confronted with very high stress levels (due to time pressure and their direct responsibility for other people's well-being and lives) while receiving low level salaries. This is particularly true for elderly care nurses compared to hospital nurses. Furthermore, working shifts, which do not allow for longer periods of recreation and on-call duties contribute to a working framework which does not appeal many people.

Outpatient care is also characterised by doing a job with high demands all alone while being on tour. This aspect means on the one hand a great deal of independence at work, which is appreciated by ambulant care workers. On the other hand, working alone means having the full responsibility for making the right decisions while not having any colleagues at one's side who could be asked for advise. Feeling not 100 % informed when having to make an important decision on tour leads to insecurities at work.

The result of these circumstances is a high level of labour turnover among ambulant care workers and part time employment.

Counteracting

In order to improve the situation in the outpatient care sector, it is crucial to increase the personnel stock. We argue that an improvement of the general framework (e.g. higher salaries) should be supplemented by an improvement of working conditions. Only by strengthening the attractive aspects of outpatient care work and reducing burdens, those who already work in this sector can be convinced of continuing with it and more of those who are seeking for new job oppurtunities will decide for the care sector.

Moreover, outpatient care services need to implement digital technologies into their organisational structures to guarantee a sustainable and economically reasonable basis for their business. We point out that digital technology can be used for both, increasing care services' efficiancy as well as improving the working conditions for the personnel on tour and in the offices. However, a successful usage of digital technologies which leads to better quality of work requires a thoroughly prepared implementation and supervision.

On this background, we started the project KOLEGE together with four partner institutions, among them two outpatient care services (one experienced with MDA = mobile digital devices, one without MDA experience).

The Project

This three years lasting project aims at reveling the chances digitalisation holds for improving the working conditions for ambulant care workers. Thereby, we focus on three core areas, which are particularly important for work in outpatient care: communication, information and learning. Introducing MDA or (in other cases) extending the application in everyday work requires a comprehensive conceptual framework fitting the technology and its potential to the care service's structures. Together with ambulant care workers, administration and management representatives we analysed these structures in the participating care services and developed ideas for increasing confidence in communication structures and the own acting on tour. Furthermore, digital devices can lead to more transparency and convey the motivation for learning on tour and afterwards. Thus, MDA can contribute to higher satisfaction levels at work.

Proposal

In our presentation we will introduce our approach of organisational change processes conveyed by digitalisation in outpatient care services. We will describe different steps as well as assisting aspects and obstacles. Examples will be presented from our focal areas, such as simplifying communicational structures or editing learning contents for different contexts and media. Even though the project was done in the sector of outpatient

care services only, core concepts and ideas for digitally driven change process management can be transferred to other care and even social services.

Keywords

digitalisation; outpatient care; change managment

6.03

RENEWING DIALOGUES IN SOCIAL AND HEALTH CARE – LEADERSHIP, WELL-BEING AND PRODUCTIVITY

Kati Tikkamäki[1], **Sirpa Syvänen**[1], **Kaija Loppela**[2]

[1]Tampere University, Tampere, Finland. [2]Seinäjoki University of Applied Sciences, Seinäjoki, Finland

Social and health care renewal dialogues -project

The Social and health care renewal dialogues -project (in Finnish SoteDialogit; https://projects.tuni.fi/sotedialogit/) wants to assure the competence, high level of quality, customer orientation and safety as well as employees' work ability and well-being and productivity during the major changes in the present and future operational environment.

The project is carried out at a time when social and health care organizations are living the most significant and extensive process of renewing social and health care structures, management and leadership, responsibilities, division of labor, services as well as work and service culture in Finnish society. The target organizations offer services for the elderly and the child protection services. The participants represent employers, managers and leaders and employees from different professional groups. The older people, their relatives, stakeholders and policy makers are also invited to the dialogues and various developing spaces.

The main goals of the project are to:

- dialogically and cooperatively develop the employees' competence, organizational structures, work, work processes and services
- support and strengthen competent, dialogic and productive leadership
- prevent psycho-social risks by developing related working methods and tools
- strengthen the professional skills and meta-know-how among the participating employees and superiors, such as dialogic course of action and reflective working orientation and digitalisation and technology supported services.

One of the most important objective is to ensure customer-oriented services.

The project is national and it will be implemented in nine provinces in Finland. The five sub-projects are responsible for the development work in its target organizations.

Methods

The project´s development method is research-assisted, cooperative and dialogic. Organizational learning and renewal will be promoted through participatory and dialogic methods and tools that activate creativity and innovation. The presentation will make use of previous data and introduces preliminary results on the material collected in this project, e.g. by individual and group interviews and questionnaire.

The focus of the paper - role of technology in the services of elderly?

The main focus of the paper is on the goal 4: digitalisation and technology supported services for the target groups. The aim is to examine and describe the new forms of producing services and way of being in interaction via digital and virtual applications, channels and tools, from the point of view of employees, elderly people and their relatives. The development questions are: How do the employees, the elderly and their relatives experience the role of technology as a part of service processes? Do they experience having skills and ability enough to use the technology? What are the challenges and possibilities of technology in increasing the ability to function and the well-being of elderly?

Technology can be used e.g.in preventing loneliness. Currently care robots are being developed for tasks in health monitoring, medication dosage and

reminders, and cleaning. Technology offers many opportunities but certainly also some risks. Based on earlier research, about half of care workers take the view that robots are not suited to care work. Before adopting the technologies, it is important to canvass the views, opinions and attitudes of care workers themselves. (van Aerschot, Turja & Särkikoski 2017.) In addition to this, we want to hear the voices of elderly and their relatives.

Effects of the project

Increasing dialogue and collaboration between professionals, professions and organizations ensures customer oriented services, clarifies working methods and increases the meaningfulness of work. This development project strengthens and enhances the development of meta-competences and dialogic and reflective interaction between different parties and multi-professional actors. The management of well-being and continuous development will be a natural part of the structures and everyday work processes during the changes in the operational environment. By achieving the main goals, it is possible to achieve increased productivity, improved quality of work life and innovations. Promotion of well-being at work, dialogic leadership, and ability to renew are based on previous research and project experience significant productivity, effectiveness and productivity factors (Syvänen 2003;2010; Syvänen et al. 2015; Ahonen & Aura 2016).

In this paper the goal is to examine the possibilities, risks, effects and questions related to technology supported services and interaction in the field of services for elderly, from the actors point of view.

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Keywords

well-being, dialogical development, services for elderly

6.04

WOMEN MID-MANAGERS AND GENDERED ELDER CARE

Marjut Jyrkinen[1], Linda McKie[2]

[1]University of Helsinki, Helsinki, Finland. [2]Universty of Edinburgh, Edinburgh, United Kingdom

Care is core to human flourishing and key aspects of all societies are organised around the recognition and delivery of care: families, health care services, social work and social care services. However, care is strongly gendered in multifaceted ways. For instance, actual care work (hospitals, institutions, social work) is strongly women dominated area of work; women are expected to do 'caring for' others and their wellbeing in working life in spite of what their actual job descriptions are; and, caring about for family members and friends in different age and life stages is often naturalised to be mainly the responsibility of women.

Drawing upon data from four focus groups we explore the multifaceted and ever shifting nature of care responsibilities for women in middle management roles working in Finland and Scotland. In exploring this data we offer the notion of a care ceiling in so far as women managers are hesitating and appear to be capping their future career options. The source of these tensions is the gender ensnarement of women and care, reinforced at a time of ageing populations and economic and government policies are emphasising that individuals should plan their working life to ensure adequate income for retirement.

Our data is drawn from a study conducted in Finland and Scotland. Women participants were in mid to later career stages and might reasonably anticipate further promotion. Our participants might be considered to be in the final stages of the oft talked about "pipeline", edging towards senior

leadership roles. In focus group conversations women explored experiences and anticipation of care, and especially elder care. Regardless of work life policies, women spoke of their critical role as daughters and mothers, managing the changing availability of care support in families, networks and services. There was notable evidence of their core role in activities and plans for care and caring. Little discussion took place on relevant policies and these appeared to be an irrelevance as women discussed immediate issues or speculated about future care roles and activities. The multifaceted and ever shifting nature of these care responsibilities caused women to draw their reflections to consider work and career options.
In exploring the data and relevant literatures we offer the notion of a care ceiling in so far as women managers are hesitating and even capping their future career options. The gender ensnarement of women and care is impacting on careers and at a time when economic shifts and government policies are emphasising the need for individuals to plan for extended working lives and income in retirement. Once women move through elder care will they be able to further develop their careers or has their care role and work have longer term implications? Further, women in general can see what is around them and may be ahead, and discussing elder across business and professional networks might also have wider implications for other women exploring their career and work options.

In summary, from our data it is evident that elder care is perceived as a rewarding opportunity for inter-generational support but also as potentially oppressive in both immediate and longer term ways. With reductions in public services, the growth in mixed economy and payment for services, and an increased focus upon workers financial and career planning, elder care becomes more of a factor in the work and career decisions of women.

Keywords

women middle managers, eldery care, careers

6.05

‘THE POOR CARER’: AMBIVALENT SOCIAL CONSTRUCTION OF THE HOME CARE WORKER IN ELDER CARE SERVICES IN IRELAND

Virpi Timonen, Luciana Lolich

Trinity College Dublin, Dublin, Ireland

In this paper, we examine the social construction of the home care worker from the perspective of social and health care professionals in the elder care sector in Ireland, and show that this social construction is characterised by ambivalence. We connect the concept of ambivalence at the micro level of human relationships to structural factors that are driving the ambivalence. The research, using the Grounded Theory method, involved focus groups and interviews with 31 participants ranging from policy planners to various health and social care professionals. Ambivalence towards home care workers is shaped by structural factors including the precariousness of care work, the commodification of time, and the stipulated personalisation of services. The irreconcilable contrasts between portrayals of carers as both ‘good’ and ‘bad’ are indicative of the deep contradictions in the expectations that contemporary care systems direct at paid caregivers.

Keywords

Ambivalence, care, care worker, elder care, Ireland, social construction

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6.06

ENHANCING COMPETENCES ON CLIENT INVOLVEMENT AMONG SOCIAL AND HEALTH CARE PROFESSIONALS

Anna-Leena Kurki[1], Elina Weiste[1], Heli Heikkilä[1], Sinervo Leini[2]

[1]Finnish Institute of Occupational Health, Helsinki, Finland. [2]National Institute for Health and Welfare, Helsinki, Finland

Client involvement is one of the central principles of the new social welfare and health care reform in Finland. This means, that customers should become equal to professionals in planning, developing, producing and evaluating social and health care services. Client involvement creates

prerequisites for more client-based high-quality services, effective service chains and functional integration of the services, which are also central aims of the reform.

Development of client involvement is a multilevel process including customer feedback, mutual interaction, collaborative development, involvement as a strategy, and involvement as a culture. In practice, it requires novel practices to enhance new kind of competences among social and health care professionals.

To promote client involvement, we arrange regionally comprehensive Client Involvement Workshop processes in different social and health care organisations during the years 2019 – 2020. Theoretically these workshops are based on Cultural Historical Activity theory, and theory of expansive learning. Also, the tools of the service design are used as a part of the process.

The aims of the Client Involvement Workshops are to involve social and health care professionals as active agents in the reform and support their work-related wellbeing; produce practices for client involvement, smooth client journeys and influential service encounters; and to enhance strategic management of client involvement in line with the goals of the social welfare and health care reform.

The Client Involvement Workshop processes focus on development of services of frequent users, i.e. customers who use regularly various services. Each workshop process consists of four sessions in which customers and professionals of different services develop together the ways of client involvement and the fluency of customer processes. This is done by analysing the current customer journeys and service encounters and development of client involvement, building a future model of client involvement and creating developmental experiments to test this model in practice, and evaluating the experiments and the developmental process. The process is facilitated by researchers.
In this presentation we show the preliminary analysis of the first two sessions of the Client Involvement Workshop process conducted in one communal health and well-being centre. Our interest lies especially in 1) How the participants create a shared view of the client involvement in customer journeys and service encounters? and 2) How the workings of workshops support customers equal participation to the developmental process?

This study is part of the *SUCCEEDING* together: leadership, client involvement and well-being at work during the Finnish health and social services reform - project, which is funded by European Social Fund (2019 – 2021).

Keywords

client involvement; competences; social and health care

6.07

SUPPORTING CHANGE OF WORK AND OCCUPATIONAL PATHS IN SOCIAL AND HEALTH CARE

Heli Heikkilä[1], Hilkka Ylisassi[2]

[1]Finnish Institute of Occupational Health, Helsinki, Finland. [2]Finnish Institute of Occupational Health, Oulu, Finland

This abstract is written in middle of a heated discussion of quality of elderly care in private health care organizations, taking place in Finland. The topic itself is not new, and discussion has concerned also the public health sector. Yet there is an ever-growing concern about how the social and health care services should be organized in an ethically and economically sustainable way in near future. On one hand, there are demands on tighter surveillance and control. On the other hand, organizing models based on the idea of self-guiding employees or teams (e.g. the Buurtzorg model in Netherlands) have inspired developers of health care sector.

In any case, the challenges of elderly care cannot be solved solely by implementing new models and ideals top-down. Rather, the viewpoint of the customer and the viewpoint of the employee should be taken into account in making decisions on organizing care. Hence, the important question is not as much “how novel ideals are implemented” but “how novel ideas are co-created by local work communities (and their customers)”.

The idea of employee or even customer participation in developing processes is not new. For example, developmental processes utilizing service design or lean ideology are quite popular also in social and health care. These change processes are often executed with the help of external consultants, and therefore, they might not always support long-term learning and development of work in the organization itself. The methods used by consultants or researchers may not be agile enough to be adopted and implemented by the work communities themselves.

Organizations often lack methods to support genuine participation and co-creation. The participation of employees in developing their work is

recognized important in strengthening their commitment and enhancing well-being. However, it is even more important to realize that the employees have knowledge regarding the possible new ways of acting as well as understanding on customer's changing needs.

Even if the ideas of the participation and co-creation are supported in the organization, the problem is that the developing daily work as well as supporting employees remain as responsibilities of single superior. Also the HR(D)-specialist's role often is to take care of training of personnel, based on the readymade plans. In other words, management and/or superiors and HR(D) typically do not collaborate as strategic partners in developing an organization.

In our research and development project "Change dialogue" we organize a co-creation process with superiors and HR-specialists from social and health care, and aim to develop a toolkit for "Change dialogue". The "Change dialogue" method has two aims: 1) It helps a work community to analyze the current changes of work and the occupational paths of the employees side by side, and it guides the participants to make change experiments in their work. 2) By combining the aforementioned themes the method supports the collaboration of superiors and HR(D)-specialist in developing.

In our presentation we first open up the idea of Change dialogue method in context of social and health care: Why and how to co-develop work and occupational paths side by side? Why it is important to bring together superiors, HR(D)-specialist and employees while developing work? We will also report the results of the first phases of the co-creation process. Our main data consist of audio-recorded co-creation workshops and interviews. We will examine especially how the co-creation process affects the roles and activity of the superiors and HR(D), and whether is also affects our own roles as research-interventionists. We will also observe the use of "Change dialogue" in the work communities. The research process includes developmental evaluation. The Change dialogue" project is funded by The Finnish Work Environment Fund and The Finnish Institute of Occupational Health.

Keywords

work development, Change dialogue, co-creation

7.01

AFFECTIVE ATMOSPHERE OF START-UP-ENTREPRENEURIAL EVENT AND GENDER

Minna Nikunen

University of Jyväskylä, Jyväskylä, Finland

In my presentation, I will discuss my ethnographical analysis on Finnish start-up event Slush. Start-up enthusiasm is in Finland supported by the political elites, and it has its connections to Neoliberal ideology. It is also clearly gendered ideology of employability, success and progresses. Start-up entrepreneurs are usually men, and reacquired mind-set and related performances are masculine.

The focus of my analysis is on affective atmosphere that is designed for start-up entrepreneurs and other audience in the Slush. I inspect the event firstly from the point of view of belonging: who is invited to be part of 'us' or in what condition one can be part of 'us'? Secondly, I ask how this is accomplished in terms of atmosphere design (recipient design). I claim that atmosphere is created both materially and interactively. The design of the space is important, as well as selection of the themes and frames, and making these themes understandable from certain perspectives, but not from the others.

In my analysis, I use my observations on my own experiences, affects and encounters, as well as my interpretations on affective encounters by the other people, material objects and environment. Additionally, I have observed the stage performances, their design and ways to affect and address the audience (audience-design).

Keywords

gender, affect, entrepreneurialism, beloning

7.02

STAYING TRUE TO THE SELF: YOUNG WOMEN AND COMMODIFICATION OF PERSONALITY IN NEW MEDIA WORK

Emma Lamberg

University of Turku, Turku, Finland

While new media work has long been a focal point for studies of aspirational work culture that emphasizes self-branding and subjective investment in work, less is known about the injuries related to being subjected to these demands. The article addresses this gap by investigating the lived contradictions caused by the demands to demonstrate aspiration through constant self-promotion. By drawing on 20 interviews and ethnographical fieldwork with young women attempting to build careers in new media work (e.g. graphic design, journalism, digital communications), the article takes issue with the idea that young woman have, in a post-feminist spirit, internalized the meritocratic, individualizing ethos of contemporary capitalism. The study finds that the participants share a sense of injury in a situation where to be rejected as a worker means to be rejected as a person. As a result, they do not only adapt to the normative ethos of commodifying their personalities but rather, struggle to distance themselves from this framework. The participants draw on a range of strategies to 'stay true' to themselves and harness their personalities for work that they perceive ethical. By shedding light on the strategies that young women use to keep their selves to themselves and resist what they deemed as an alienating logic of selling one's soul, the study pushes forward the contemporary debates about subjectification of work and postfeminism.

Keywords

gender, subjectivity, new media work

7.03

"I LOVE WORKING WITH WOMEN"- A STUDY OF GENDER AND CONFLICTS AMONG WELFARE OCCUPATIONS IN SWEDEN

Britt-Inger Keisu[1,2], **Kvist Elin**[1]

[1]Department of Sociology, Umeå, Sweden. [2]Umeå centre for gender studies, Umeå, Sweden

On a societal level, discourses of women and femininity are often characterized as being; vague, emotional, conflictive, unable to cooperate, and sensitive as well as brooding over things, talking behind others back and taking on problems. Men and masculinity are commonly associated with the opposite. In what way these gendered meanings have impact on an organizational level is important to scrutinize as these ideas often are unconsciously embraced and therefore hidden. Still, it may affect the psychosocial working environment and/or how the work is organized.

The aim of this article is to explore how welfare workers make sense of their experiences towards gender and conflicts and their strategies for performing "proper co-worker" relations whereas working with emotions are the core component of everyday work. Applying Wetherells (1998) concept troubled and untroubled position the aim is further to understand how specific subject positions are talked about as criticized, questioned, and troubled and how untroubled positions are talked about as normal and righteous. The main research questions are: How is gender and conflicts represented by the welfare workers? How do interviewees navigate between discourses of gender and conflicts in an demanding emotional field of work? How are welfare professions identities constructed?
The analysis, guided by critical discursive psychology, uses qualitative interviews with four first-level managers, and 22 employees in four occupations, i.e., three registered nurses, four assistant nurses, four teachers, one teaching assistant, one school welfare officer, two social workers working as team leaders, and seven social workers. We conducted on-site interviews in 2017 at three workplaces that were chosen due to their interest in participating in the research project because it extends over a three-year period and takes an interactive approach. At these workplaces, the first-level managers informed their employees about the research project and anchored the process and ideas with them. For those who were interested in taking part in the interviews, the first-level managers compiled the contact information. All professionals who expressed interest were contacted and included in the study.

In the interviews, we asked about each interviewee's personal experiences of constructive and destructive conflicts in their current workplace, but also about their work and work environment in more general terms. We also asked about both their own and their managers' abilities to counteract and manage conflicts and if gendered meaning influence the processes. Four storylines of gender and conflicts is represented and entitled; clueless,

uncritical, resisting and counteracting. Hence, the analysis unveil both adaption and resistance towards gender meaning of conflicts. The welfare professions handled their untroubled positions as subjects unable to describe any experiences of gender and conflicts. Further, troubled positions are characterized by subjects resisting and counteracting the meaning of femininity and conflicts.

Wetherell, M. (1998). Positioning and interpretative repertoires: Conversation analysis and post-structuralism in dialogue. Discourse & Society, 9(3), 387–412.

Keywords

welfare profession, conflict and gender

7.04

DIFFERENT CAREER PATHS TO THE ICT INDUSTRY - HOW TO ATTRACT MORE WOMEN TO MAKE A SUCCESSFUL CAREER CHANGE TO THE ICT INDUSTRY

Sonja Hyrynsalmi

University of Turku, Turku, Finland

The fourth industrial revolution is expected to bring major changes both in society as well as in the modern industry. Naturally, it will also shake the labour market — however, not only by replacing blue collar duties with robots, but also by renewing the set of skills and competencies needed in new kinds of work duties. The need for more diverse ICT skills and at the same time the need of new workers at the ICT industry is growing fast and higher education institutes are not able to respond at the same pace. That is why it is important to get more information about how we can encourage and support people with different backgrounds—especially women who are still underrepresented at the ICT industry—to update their skills and make a career change to the software industry.

Right now Finland, among other western countries, is facing problems in finding enough skilled labour to the ICT industry. Estimations of the needed ICT labour varies from 7,000 to 15,000 and the calculated need is growing yearly by 3,800 persons when only 1,100 computer science and technology students graduate from the Finnish universities and polytechnics. Need for more labour springs for example from the fact that the ICT services are already the second largest industry group after paper and pulp industry and covering 11.4 % of national export yearly.

To respond to this labour shortage issue, new ways of training, teaching and attracting new people to the industry has to be invented. In this research, we will focus on the good practices and unique model of Finnish women ICT communities and their possibilities to train and motivate new people to the industry.

Several factors favour the fact that we need more women to the ICT industry. One of the facts is that there is still clear underrepresentation of women in the ICT industry. The average number of women working in ICT industry in Europe is 17% although a lot of efforts has been focused on getting more women into the technology industry. Furthermore, women also more often work in non-technical job positions at the technology companies and they doubt their skills more than their male colleague. Women are also rarely seen in senior positions in ICT sector. For example, in the USA only 11% of chief information officers or senior leadership roles in tech companies were occupied by women.

To research more closely the motivation, inspiration and challenges experienced by women who are interested in making a career change to the ICT industry we collected open internet questionnaire data during May–June 2018. The main target group of our questionnaire was women, who have already made a career change to the software industry or are planning to make a career change. The aim of this first part of research was to bring up themes and new discoveries from career changers attitudes, challenges and learnings. The main response population was looked from the Facebook community named Ompeluseura LevelUP Koodarit, where there were around 2,000 active members at May 2018. We used the survey method for the data collection (n=134) and open-ended questions were analysed with qualitative analysis.

The results of the survey were showing that the ICT industry is attractive for career changer women, but there were seen problems such as what are the best ways to train oneself to the industry, how to manage the family life, the mortgage and intensive studies at the same time and what kind of job opportunities there is at the industry. The wage, interesting job possibilities, creative work and equal payment where seen the strengths of the industry. Most of the respondents were seeking more information and peer-support from the women ICT online communities and events. The low threshold in events, which were focused on only for women, was seen the key element for the first step to the industry although at the later point women wanted to all the ICT events and workplaces to be safe environment to anyone to come. The women software communities and respondents' family members

(usually husband) where the main source for inspiration and motivation to take a career jump to the new industry.

The aim of our research is to develop new coping mechanisms for the labour market to successfully overcome the labour and skill shortage at the software industry in fast changing technological revolution. In addition, the goal is to raise awareness of successful career change mechanisms and create good practices for governments, software companies and universities creating successful services and paths to support career change to the software industry.

The next phase is to research the roles and actions made by government and universities towards successful career change and continue collecting data as interviews from women who have already made career change to the software industry.

Keywords

Career change, women in STEM, women ICT communities

7.05

THE REAL WORK OF GENDER AND AGE

Vanessa Beck

University of Bristol, Bristol, United Kingdom

Historically, the most significant changes in the world of work have been the rise of women participating in the labour market and the extension of working life beyond what used to be considered retirement age. And although most countries have legislation in place to protect against gender and age discrimination in workplaces, there remains significant work to ensure that each separately, but even more so, the combined effects of gender and age are accommodated within the changing world of work. The issues and complications of experiencing menopause transition whilst in the workplace exemplify the combined effects of gender and age. In this paper, we show how menopause is not just a women's issue but affects colleagues, teams, line managers and organisations as a whole. In what is likely to be the first survey on menopause to include women and men of all ages, we investigated attitudes, values and experiences of the impact of menopause on the workplace. An online survey, open from 7 June to 26 July 2018 was completed by 5,417 individuals, 7.7% of whom identified as men. The survey was distributed via TUC (Trade Union Congress, UK) networks as well as the authors' professional and social networks, so a response rate cannot be established. The majority of respondents were based in Great Britain but 3.5% indicated that they were based around the world, including the US and Canada, Ireland, Australia, Denmark and Germany.

Although only women who were experiencing or had experienced menopause were asked questions about this experience, all respondents were invited to answer questions around: the information about menopause that is provided in their workplace; whether they had disclosed / been disclosed to about menopause and their reactions; and specific aspects of the workplace that might make menopause an issue, e.g. work wear or uniform. In addition to closed questions and rating scales, participants were asked a range of open, qualitative questions to reflect their experiences and attitudes. Although male respondents, potentially biased towards this by their willingness to participate in the survey, were mainly supportive and understanding of menopause issues, there are differences in terms of knowledge and awareness of possible implications and consequences. The paper will highlight gender differences in both closed and open questions and draw out the implications for the issue of gendered ageism in the workplace. It will draw broader conclusions to reflect on the societal and labour market changes that are required to ensure equal and fair societies and workplaces.

The research for this paper was funded by the ESRC IAA scheme.

Keywords

gender, age, employment

7.06

ACCULTURATION AND OBESITY AMONG FEMALE MIGRANTS IN THE UNITED ARAB EMIRATES

Elpidoforos Soteriades[1,2], Syed Shah[1], Marilia Silva Paulo[1], Raghib Ali[3], Tom Loney[1,4], Javaid Nauman[1]

[1]United Arab Emirates University, College of Medicine and Health Sciences, Institute of Public Health, Al Ain, UAE. [2]Harvard T.H. Chan School of Public Health, Department of Environmental Health, Environmental and Occupational Medicine and Epidemiology, Boston, USA. [3]New York University, Public Health Research Center, Abu Dhabi, UAE. [4]Mohammed Bin Rashid University of Medicine and Health Sciences, College of Medicine, Dubai, UAE

Background: The United Arab Emirates (UAE) is a high-income country located in the Arabian Peninsula that has experienced rapid growth and development since its founding over 40 years ago. Nowadays, the expatriate population accounts for approximately 80% of the UAE population.6 This explosive population growth in the UAE is the result of a unique improvement in the quality of life and job opportunities that attracts migrants from all over the world. The rapid improvement in the socioeconomic status of the United Arab Emirates population has resulted in dramatic lifestyle changes including less physical activity and altered eating habits accompanied by an increased caloric intake. The acculturation process is characterized by a complex, gradual exchange of immigrants' original attitudes and behaviours to the behaviours in the host culture. The process of acculturation has been associated with many migrant adverse health effects. The prevalence of obesity among females in the United Arab Emirates (UAE) is very high and the same is true for female migrants in the United Arab Emirates. There are no studies available on the association between acculturation and obesity among female migrants in the UAE. Our study aimed at examining whether acculturation (measured by surrogate years of residence in UAE) is associated with an increased risk of obesity among female migrants.

Methods: The sampling frame in our study included a list of all female migrant workers (aged ≥18 years) who attended the government screening center in Al Ain to undergo health and communicable disease screening for employment visa in 2013. A cross-sectional representative sample of migrant female workers aged ≥18 years in Al Ain, UAE was recruited. We invited every third person on this list to participate in the study. An adapted WHO STEPS questionnaire was used to collect socio-demographic, lifestyle, anthropometric and blood pressure data. Our main exposure variable was duration of residence in the UAE (years) as a surrogate marker of acculturation. The outcome of interest was overweight and obesity evaluated by different measures such as body mass index and central adiposity. Bi-variable and multi-variable logistic regression models were used to examine the association between acculturation in the UAE and overweight / obesity (body mass index ≥25.0 kg/m2) and central adiposity (waist-to-hip ratio≥ 0.85) in this population.

Results: Of 800 eligible female workers 599 (75% participation rate) agreed to participate. Of 599 who initially participated, 553 (92.6%) originated from three geographical areas; namely the Philippines (n=290), Arab countries (n=136) and South Asia (n=127). The mean age of female workers was 34.1±9.5 years and the majority (54.3%) came from urban areas within their home countries. Accommodation arrangements were the following; 43.8% lived with their family, 35.4% lived with their sponsor (employer), 11.4% shared accommodation with non-relatives and 9.4% had single accommodation. The overall prevalence of overweight, obesity and central adiposity was 30.0%, 16.8% and 43.2%, respectively. Prevalence varied across nationalities, and was 28.6%, 6.9% and 30.3% among Filipinos, 30.1%, 37.5%, and 66.9% among Arabs, and 33.1%, 17.3% and 72.4% among South Asians, respectively. Female migrants with ≥5years of residence in the UAE were two times more likely to be overweight or obese [OR=2.12, (95% CI: 1.05, 4.27)] and have central adiposity [OR=2.05. (95% CI: 1.09, 3.84)] as compared to female migrants with fewer years of UAE residence. Female migrants who reported walking for >30 min/day were less likely to be overweight or obese [OR=0.41, (95%CI: 0.17, 0.97)] or exhibit central adiposity [OR=0.21, (95%CI: 0.08, 0.59)].

Conclusion: To our knowledge, this is the first study to concentrate on non-communicable disease conditions and explore the association between years of residence in the UAE and an unhealthy body weight among female migrants. In summary, we found a very high prevalence of overweight and obesity among South Asian and Arab female migrants. In addition, obesity was significantly more prevalent among female migrants who resided in the country for five or more years. Acculturation in the UAE, as evaluated by years of residence in the UAE was significantly and strongly associated with overweight / obesity and central adiposity even after adjusting for other potential confounders. Achieving the public health recommendations for walking (i.e.>30 min/day) was negatively associated with an unhealthy body weight. Population preventive programs should also focus on migrant workers and promote physical activity and healthy diet in the UAE and around the world.

Keywords

Obesity, Acculturation, Migrant workers

7.07

THE MENOPAUSE TABOO AND WORK: THE IMPACT OF MENOPAUSE ON THE WORKING LIVES OF WOMEN IN THE POLICE FORCE

Carol Atkinson[1], Fiona Carmichael[2], Joanne Duberley[2]

[1]Manchester Metropolitan University, Manchester, United Kingdom. [2]University of Birmingham, Birmingham, United Kingdom

This paper follows on from a recent stream of work concerned with understanding corporeality (Dale and Latham, 2014) and the gendered body at work (Yates, Riach and Johansson, 2017; Fotaki Metcalfe and Harding, 2014). Our aim is to examine how older women experience the impact of menopause on their working lives in the police force. Although rarely discussed and often considered taboo, menopause is highly significant workplace issue. Older women form an increasingly large proportion of the workforce: In the UK 67.7% of women aged 50-64 are employed compared with 46.9% in 1992 (ONS, 2018), and, since menopause transition typically occurs around age 51, lasting four to eight years, a significant number of these women will be experiencing menopause (Brewis et al., 2017).

Menopause transition is a natural biological process during which menstruation ceases. It creates physical symptoms, which include hot flushes, sleep disturbance, difficulty in concentrating, anxiety and loss of confidence (Jack et al., 2014). While these symptoms vary in severity and are not troublesome for all women, two-thirds of women report moderate to severe impacts on their working lives and some even exit employment (Griffiths et al., 2010). Up to 30% of women report that job performance is negatively affected (High and Marcellino, 1994) and job satisfaction and wellbeing are also impacted (Brewis et al., 2017). Research centres on the difficulties and embarrassment experienced by women, with menopause transition positioned as an occupational health issue (Griffiths et al., 2010; Jack et al., 2014). While symptoms are important, and one aim of this paper is to develop understanding of the ways in which women experience these and their impact within the workplace, equally important are attitudes towards menopause transition in the workplace (Jack et al., 2016). Griffiths et al. (2010) suggest that women often perceive disclosure of menopausal status at work to be threatening and embarrassing. They suggest that menopause transition may not be viewed as a legitimate concern, exposing women to ridicule and hostility when discussed with managers, and that the support and empathy required to disclose are often lacking. Menopause is 'a topic silenced by fear, ignorance and revulsion' (Coupland and Williams, 2002: : 442) and this is particularly so in the workplace, where its acknowledgment may be career limiting (Atkinson et al., 2015) at a time when older women already risk discrimination and becoming 'invisible' (Neumark et al. 2017; Jyrkinen and McKie, 2012). Yet attitudinal workplace research is extremely limited and developing understanding is vital in influencing perceptions and challenging menopause's status as a 'taboo' subject (Chrisler, 2013).
In this study we challenge the dominant medical-biological model, where menopause is understood as a hormone deficiency disease and all symptoms are seen as the result of declining hormone levels and instead adopt a 'biopsychocultural' approach to understanding the menopause transition (Jack et al. 2014; Griffiths and Hunter 2014; Mishra and Kuh 2006). This approach involves attempting to understand symptoms in the wider psychological and social context of a woman's life.

The study is set in what is often seen as a traditional highly masculine occupation, the police force – An occupational setting which is argued to be subject to intense scrutiny of 'bodily conformity' (Williams and Bendelo, 1998). Previous research has highlighted the hegemonic masculinity of police culture in which the 'ideal' police officer has been constructed as being ever available and wholly flexible (Dick, 2009; Silverstri et al., 2003; Connell 1995). A significant body of research has highlighted the obstacles to acceptance and integration that women encounter. Exclusionary practices like homophile behavior (Tomaskovic-Devey 1993), homo-social reproduction (Moore 1988), and tokenism (Kanter 1977) hamper women's performance at work and make their promotion and progress relative to male counterparts more difficult, often precipitating their exit from men's jobs (Reskin 1993; Cassirer and Reskin 2000). In addition age inequality has been shown to hit older women particularly hard (Riach and Kelly, 2013) with discussion of their perceived invisibility (Ainsworth, 2002) and lack of competence (Eagly, 1994).

Data for this study were collected via an online survey of 1,413 women working for three regional police forces in the UK. The survey included quantitative and qualitative elements. The findings suggest that while attitudes towards menopause and the symptoms of menopause can impact significantly on the wellbeing and job satisfaction of older women working in the police force, their working environment is also very important. Since menopause as well as the effects of menopause appear to be transitory (there were no significant relationships between post-menopausal status and either wellbeing or job satisfaction) appropriate workplace measures can support older women through this phase of their life and help to prolong their careers.

Keywords

menopause, embodiment, police

7.08

GENDERING PARADOXES IN RESEARCH AND INNOVATION WORK

Päivi Korvajärvi, Marja Vehviläinen

Tampere University, Tampere, Finland

The aim of the paper is to map out situations and processes, in which gender becomes effective in research and innovation (R & I) work in Finland. Furthermore, the aim is to analyse the ways, in which gendering and its effects are entangled with the framings R & I, such as the financial cuts and austerity politics, conducted during the last years, and as their consequence, the deterioration of gender equality (Elomäki & al 2018). We preliminarily suggest that gender inequalities become stronger during the austerity politics also in R & I work. However, the actual situations of the women researchers and experts, intersected with age, organizational position, parenthood, meaning of work, feelings of justice, career desires, and wishes for a good life, participate in the formation of gendered experiences and experienced and observed gender (in)equalities.

The paper explores, how do the women researchers and experts in R & I reflect gender impacts in the context of their work. We aim to revisit the understandings of gender in work organisations and trace the effects of the austerity politics in them. Our analysis draws on the methodology of gendering practices in work (Acker 1990; 2006; Korvajärvi 2011), and R & I work in particular (Vehviläinen & al. 2010). Accordingly, we look for situations, images and social relations, in which gender becomes effective, and challenge, maintain or promote gender (in)equalities. The method of analysis combines thematic and discourse analysis.

The research material consists of work history interviews conducted in 2018-2019. The interviewed 25 women experts worked mostly in the bio- and health technology sector in a research intensive region in Finland. The interviewed women were between 30-60 years old. They were white and highly educated, and they all had a PhD degree. They mostly worked in multidisciplinary teams, for example as team leaders or senior researchers in various organizations such as academic institutions, companies or start-ups. The work included close co-operation between academic and applied research and between academic institutions and business companies. In addition to the work history interviews, we use interviews of various key stakeholders in the region. All interviews took approximately 1-2 hours and they were recorded and transcribed verbatim. The interviews are part of the Nordwit Centre of Excellence (https://nordwit.com) research material.

The preliminary and sketchy analysis shows several, often contradictory, ways of reflecting gender (in)equalities and gendering processes in R & I work. The situations of women in R & I apparently are intertwined with open and hidden gender (in)equality practices.
The interviewed women recognized the existing gender hierarchies and gender segregation in R & I in general and in their own working environments. However, the same women experts thought that they themselves were not suffering the situation. They relied on themselves and believed that their organizations would fix any unfairness of inequality, if those ever happened. This distinction between the structural inequalities and the reliance on individual capacities in the understanding of gender was found already in previous decades in our research. In contrast to this, we also find now critical and strong reflection on one's own experiences of the inequal recruitments and nominations, which were based on old boys´ networks in the organization or special male-dominated areas in the R & I in general. These experiences had hurt deeply, and in some cases the interviewed women became openly active and struggled against gender inequalities. Becoming a mother was a crucial point to intensify the reflections on gender in work, usually in relation to their spouses, and in connection to the care options provided by the welfare state, such as the day care system or the legal chance of doing shortened working hours.

Promoting economic growth and competitive markets, on the one hand, and the expectations of promoting well-being in society, on the other hand, set structural frames for the R & I work. As the work histories covered a variety of economic settings and funding policies in the Finnish society, also the understandings on gender differed under the diverse funding situations in R & I. The analysis particularly calls for a deeper analysis of both silent gender (in)equalities as well as open and fully accepted gender equality strategies and activities in R & I.

Keywords

Gendering, gender inequality, research and innovation sector

7.09

THE GENDER AGENDA OF CULTURAL WORK: FASHION WORK AS A PRECARIOUS SEMI-PROFESSIONAL PROJECT

Alexandra Manske

Hafen City University, Hamburg, Germany

This paper focuses on patterns of gender inequality in the cultural and creative industries (CCI) in Germany. The aim is to investigate gender inequality of the CCI by a case study of the small-scale urban fashion industry within a national and geographical realm in Berlin. With the share of women exceeding 80%, the fashion industry is a female-dominated field of labor, which on the one hand is imbued with the promise of pleasure in work, while at the same time this work is precarious and lacking the protection of standard employment, as Angela McRobbie states. However, little is known in what way fashion work exactly lacks the protection of conventional employment, and how it relates to gender issues. By exploring the way in which fashion design is subjugated to low status and low pay also by its professional features, this paper examines important aspects of work in the CCI that have not been sufficiently taken into account.

This paper offers an analysis of the links between precarity, gendered segregation and training pathways in the female-dominated fashion industry. Thus, the paper addresses the following question: To what extent intertwine gender inequalities within the fashion industry produced reliant on institutional mechanisms of the German labor market system with gendered structures of low status and low pay in the fashion industry as a particular female dominated segment of the CCI? Based on qualitative data conducted by the author, the paper explores the way in which women's labor in the fashion industry is subjugated to low status and low pay. The paper assumes that the gender structures of fashion work on the one hand can be traced back to the precarious job market of the fashion industry while its seeds, on the other hand, are also sown in the German system of vocational education and training (VET), which gives rise to particular professional conditions, patterns of segregation and gender inequalities of the fashion industry. This gender logic result in what can be called a semi-profession, which is marked by a lack of institutionalized characteristics as well as little autonomy, status and rewards. Moreover, fashion work can be qualified as a precarious semi-professional project (Bolton & Muzio 2008). The paper thus argues that these two aspects of fashion work – namely, insecure and precarious working conditions, and a semi-professional status based on a gender-specific training system – sum up to the gendered structures of disadvantage in Berlin's fashion industry. By taking the intertwining professional and employment relations into account, the paper wants to contribute to a thorough understanding of gendered inequalities and segregation patterns within the CCI.

The argument will be developed as follows: First, I will introduce into the structure of the German professional training system. The second section explores gendered segregation patterns of the CCI in Germany in general. Third, I will present the research methods employed. The fourth section provides deeper insights into the working and employment conditions of fashion designers in Berlin. Here, the parameters of a semi-profession will be contextualized with the help of case studies that portray the working and living conditions of self-employed fashion designers. The empirical findings underline that the precarious working conditions of the fashion industry correspond to a particular low-status professional project, which gives a weak position in the labor market.

As a result, female-dominated fashion work and its inherent tension between professionalization and precariousness is rooted in historically-grounded patterns of the professional project in Germany and its vocational structures insofar as it is heir to traditional gendered inequalities. Thus, the focus on the professional structures of the fashion industry adds an important aspect to the effort of understanding the way in which women's labor in the small-scale fashion industry in Germany is tainted by low status and low pay. It can be summed up as a subordinate professional project of a symbolically highly charged segment of the CCI with little autonomy over its work as well as little control over its knowledge base.

Keywords

Cultural and creative industries, fashion industry, gender

7.10

THE BATTLE OVER KINDERGARTEN TEACHERS' WAGES: OUTSIDER-DRIVEN DEINSTITUTIONALIZATION OF A GENDERED LABOUR MARKET PRACTICE

Paula Koskinen Sandberg

Tampere University, Tampere, Finland

This paper tells the story of unusual chain of events that took place in Finland in 2018. The events unfolded around kindergarten teachers' wages in Finnish local government sector. In March 2018, Finnish media revealed that there was a secret agreement, a "wage cartel", on kindergarten teachers' wages between three municipalities in Finnish capital area. These municipalities had agreed on not to compete with each other over labour force with wage increases for kindergarten teachers. At the same time, there had been a severe shortage of labor in this sector. Kindergarten teachers are among the educated but low paid, feminized occupations of the public sector.

The revelation made by the media resulted in public outrage, and the rise of a social movement called #Eileikkirahaa (English #NoPlayMoney). The social movement, initiated by an angry mother and entrepreneur, mobilized thousands of people in just a couple of days through social media. What is unusual about this case is that wage increases for kindergarten teachers we not mainly demanded by the representatives of that occupation, or unions representing them, but just angry public that included a variety of people with different backgrounds, not all of whom had any direct link to the occupation. This included the author of this article, an academic and active part of the social movement from day one.

I draw on Maguire and Hardy's (2009) work on outsider-driven deinstitutionalization and how it takes place by problematization of cognitive, normative and regulative pillars that uphold an institutionalized practice. The institutionalized practice in question is the legitimacy of paying feminized work of the public sector low wages mainly based on historical developments and related gendered labour market practices. The legitimacy of the institutionalized practice was called into question by an outside actor, which problematized the practice quite drastically.

As a methodology for the analysis, a narrative approach will be utilized (e.g. Eisenhardt and Bourgeois, 1988, Ricoeur 1984, see also Maguire and Hardy, 2009). This approach maps the starting point, key events, actors, the nature of processes connecting events, underpinning social values, political goals and conclusion for the event studied. In addition, the analysis includes auto-ethnographic elements, since the author has been one of the active actors in this case. The data used in the analysis are media material from 2018 about the case, interviews of central actors (10 interviews) and the field notes collected by the author. Together these provide an interesting account on how the events unfolded, what were the pillars and bodies of knowledge that upheld the low wages of kindergarten teachers, and how this became questioned, and with what kind of arguments, action and results.

The work of the social movement has already resulted in wage increases in several Finnish municipalities, including the original three "wage cartel" cities in the capital region. Even though previous institutionalized practices might not be fully abandoned, the work of the social movement did successfully challenge the taken-for-granted labour market practices and resulted in wage increases for kindergarten teachers in several Finnish municipalities.

Keywords

equal pay, social movement, local government

7.11

IS GENDER INEQUALITY IN SUPERVISORY AND MANAGERIAL POSITIONS PERSISTENT IN THE NORDIC WORK LIFE? PERSPECTIVES FROM COMPARATIVE RESEARCH

Armi Mustosmäki, Jussi Tanskanen

University of Jyväskylä, Jyväskylä, Finland

Nordic welfare states are considered women friendly -Publicly funded welfare services and policies facilitate women's labour market participation, especially those of lower income levels. However, according to institutional theories, women in Nordic labour markets face more difficulties in their career progression when compared to their female counterparts in less regulated labour markets and less generous welfare states. This controversial phenomenon has been identified as the "welfare state paradox".

According to the critics, the welfare state paradox theory overemphases the employers' tendencies to discriminate on women in Nordic countries as well as for downplaying the role of the state and organised labour in enabling women's continuous and high quality employment. In addition, institutional theories have been critiqued for not being able to recognise change.
The aim of this paper is to look if women's higher disadvantage in occupational achievements in Nordic countries is persistent. This paper relies on European Working Conditions Survey (EWCS 2000, 2005, 2010 & 2015) to analyse the gender gap in Nordic work life from comparative perspective: Are women in the Nordic countries comparatively still in 2015 more disadvantaged than their counterparts in other less generous welfare states? Countries taken into comparison are Finland, Sweden, Germany, the UK and Spain, representing dualist, liberal and southern employment regimes. Preliminary findings show that while there is increase in women's authority at lower organizational levels across countries, it is still harder for women in Germany, Finland and Sweden to raise into very high position in the organizations.

Keywords

inequality, supervisor, comparative research

7.12

MOMMY BLOGGERS AS ENTERPRISING INDIVIDUALS - EXPLORING 'NEW' FORMS OF GENDERED LABOUR ACROSS VIRTUAL SPACES WHERE ENTREPRENEURSHIP, SELF-PROMOTION AND DIGITAL TECHNOLOGIES INTERTWINE

Astrid Huopalainen[1], Suvi Satama[2]

[1]Copenhagen Business School, Copenhagen, Denmark. [2]Turku School of Economics, Turku, Finland

The research fields of mumpreneurship, self-employed motherhood and mommy blogging remain narrow in the field of management and organization studies. As domestic, reproductive and 'feminized' work are part of mumpreneurship and mommy blogging as largely home-based businesses practiced by self-employed maternal subjectivities, these work practices are easily devalued as frivolous, feminized and unimportant 'hobbies', thus not taken seriously as 'real' forms of entrepreneurship (e.g. Luomala, 2018; Ekinsmyth, 2013). This study takes the changing nature of gendered, precarious and technology-mediated 'new' labour as its point of departure, and focuses on the critical case of mommy blogging. More specifically, this paper asks: how is mommy blogging practiced and 'done' across online virtual spaces (such as blogs and social media portals), and how do these spatial practices come to construct, shape and develop the entrepreneurial subject positions of mompreneurs in digital landscapes?

The context for the present study is Finland, which represents Nordic cultural ideologies and values. This qualitative study is based on nine months of (n)ethnographic fieldwork on the virtual spaces of blogs and 15 interviews with Finnish mommy bloggers. Here, we explore the tensions and crossings in-between the lived and fundamentally embodied experiences of motherhood, and the (still) largely disembodied expectations of digital entrepreneurship, asking how precarious entrepreneurial subjects navigate these tensions.

As a fundamentally embodied, 'messy' and material experience and practice, motherhood is tied to multiple (and sometimes conflicting) societal norms and gendered expectations (Gatre Besides having become increasingly popular as a hobby among middle-class Finnish mothers, blogging has become an increasingly professionalized realm and a source of income to many mothers. Through their blogs filled with texts and images, bloggers build commercial brands that attract readers and commercial partnerships, present and narrate their everyday life, as well as create communities of support. To mommy bloggers, blogs and social media portals constitute an important link "to the outside world" during a life stage when one is physically bound to the home with small children.

The findings of our study suggest that the blogs enable mothers to 'exist' outside their fundamentally fleshy and mundane mothering roles and enjoy amounts of visibility at a life stage when they would otherwise risk feeling largely invisible. However, the blog still attracts the (reader's) attention to the domestic sphere and therefore, being a mommy blogger is both an escape route from the domestic sphere as well as a 'return to the family'.

This study contributes to research on maternal subjectivities (Gatrell, 2017; Huopalainen and Satama, 2018) by highlighting the problems of the narrow existing understandings of mumpreneurship. Whereas mumpreneurship brings together the practices of entrepreneurship and motherhood, the existing literature has largely kept these spheres apart: entrepreneurship is still largely portrayed as a masculine, disembodied phenomenon in the public sphere, whereas motherhood is bound up with leaking and fundamentally embodied female experiences in the private sphere. This paper disturbs these stereotypical assumptions by analyzing the crossings in-between the domestic, embodied and 'feminized' realm, and the professional, technologically mediated and 'masculine' realm.

Furthermore, this study contributes to the discussion on gendered body work (Cohen &Wolkowitz, 2018; Twigg et al., 2011) by bringing together the two perhaps controversial – embodied and virtual – life-worlds as subjective spaces. By developing a spatial approach to mommy blogging, the paper argues for a widened and more dynamic understanding of how technologies, virtual spaces and entrepreneurship construct maternal entrepreneurial subjectivities.

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Keywords

gendered labour, motherhood, body, blogs, nethnography

8.01

HYBRID WORK AND HYBRIDIZATION – EMPIRICAL EVIDENCE AND CONCEPTUALIZATION

Isabell Stamm[1], **Hans Pongratz**[2], **Alexandra Manske**[3]

[1]Technische Universität Berlin, Berlin, Germany. [2]LMU, Munich, Germany. [3]HafenCity University, Hamburg, Germany

Forms of work have become more plural over the past decades. This includes, for one, non-standard and a-typical forms of work such as part-time, blended, contract or temporary work as well as solo self-employment. This includes, for another, an increase of hybrid forms of work, those that combine employed and self-employed work in (ever-shorter) subsequent or overlapping sequences across the life course.

In this talk, we focus on such hybridization as complex interweaving of work forms. First, we provide an overview of key findings of a bulk of recent empirical studies on various forms of hybrid work in Germany conducted by members of our standing working group. This overview touches upon potential causes, the coping of workers with these new conditions, as well as potential consequences for work and social welfare policies. These issues are particularly relevant given strong empirical evidence that in many cases hybridization is the result of precarious working conditions and at the same time increases the unsteadiness of work biographies. Second, we aim to expand the analytical framework of such hybrid work by refining the conceptual understanding of hybrid work and hybridization. Hybrid work is a significant challenge not only for the affected persons and political actors, but also for social science research. Hybrid work calls into question the applicability of key terms in the sociology of work and labour market research such as status of employment, labour market segmentation or career patterns.

Keywords

hybrid Work, self-employed work, Germany

8.02

MULTIPLE JOB HOLDING – PRACTICES AND INSTITUTIONAL FRAME

Arja Haapakorpi, **Anu Järvensivu**

Tampere University, Tampere, Finland

Although employment contract with one employer is the most common way to earn one's living, alternative ways have emerged with fragmentation trends in economy and labour markets (Bamberry & Campbell 2012). Research-based knowledge about this diversified phenomenon is scarce or the studies focus either on precarious employment (Standing 2011) or self-employment (Eurofound 2017). Precarious employment refers to short-term contracts, fragmented careers, scarce resources in negotiations on employment terms and unstable future. Precarious employment is related to the structure of economy for it is common in flexible business which react quickly to cycles in economy. Self-employment may be a voluntary choice, motivated by better opportunities for development and income, and freedom of action, but it may also be involuntary and forced with poor employment terms. In case of the latter, self-employment may be related to precarious employment.

However, the study on multiple job holding is not theoretically and empirically identical with precarious work or self-employment, although it partly interlaces them. The focus of the study is having multiple income and employment sources, either as a salary earner or self-employed, which overlap in various ways. On the basis of previous study (Bamberry & Campbell 2012), multiple job holding may be motivated by shortage of income or professional development, but there are strong signs which refer to much more diversified sets of motives and combinations of employment. Instead of the traditional pattern of multiple job holding – a permanent full-time employment contract and a side job – the employment and income patterns are diversified.

Multiple job holding is related to employment and welfare policy (Saunders 2011) and legislation on employment (Quinlan 2003), but also organizational and social patterns of work. Welfare systems (funds for unemployment and retirement) do not recognize the new ways of earning one's income, as the systems are built on the patterns of typical full-time employment contract with one employer or entrepreneurship. Social and professional commitment to many parallel assignments or contracts may not be possible, which may be problematic for work organizations employing multiple job holders (see Guest et al. 2006). On the other hand, non-compete terms in employment contracts have become more common, which decreases the opportunities to this way of earning one's living.

Our study on "Multiple job holding – practices and institutional frame 2019-2020" contributes to this research field with the following perspectives: individual, occupational / professional and society. We study i) how individuals shape their careers consisting of many employment contracts or assignments, ii) how multiple job holding is carried out in different occupational fields, and iii) how multiple job holding is related to labour markets and institutional systems. We consider individual careers holistic, not bound to a linear mobility pattern but to diversified ways of combining income sources and employment with individual life courses. Careers and occupations are restructured with new technologies, and we assume that this is related to multiple job holding (Acemoglu & Restrepo 2018). For example, platform economy organizes tasks and assignments in new ways, and some occupations, such as retail, may be exposed to shortened work hours (see: Sangeet 2018). Occupations and professions have different resources for guarding their interests when facing the challenges and competition in fragmented economy and labour markets, which is reflected into the patterns of multiple job holding. The third perspective, labour market and institutional systems refers to production and employment regimes and welfare systems: how multiple job holding is related to, for example unemployment benefits, pensions and regulation of labour market.

Our research methodology consists of qualitative approach (interviews, narratives) and quantitative approach (register and survey data).

The researcher are Arja Haapakorpi and Anu Järvensivu (Tampere University) and Merja Kauhanen (Labour Institute for Economic Research). The research project is funded by The Finnish Work Environment Fund.

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Keywords

multiple job holding, self-employment, precarious work

8.03

FRAGMENTED WORKDAYS: SPLIT SHIFTS AND THE BOUNDARIES BETWEEN PAID WORK, UNPAID WORK, AND NON-WORK

Karin Sardadvar

Vienna University of Economics and Business (WU Wien), Vienna, Austria

Atypical, fragmented, and hybrid work comes in many varieties. In my presentation, I aim to shed light on one particular variety of fragmented work that has received very little attention to date in spite of its severe effects on employees' lives: split shifts. Split shifts are a working time model in which the workday is interrupted by one or more hours of an unpaid break. This shift-work model is widespread in such sectors as cleaning, elderly care, hotels and restaurants, retail, and transportation. It is used to create employer-centred flexibility and to accommodate customer preferences.

For employees, split shifts can imply long overall workdays involving alternating shifts of paid and unpaid work and multiple travel times. Yet, as opposed to other shift work or on-call duties, the strains and disadvantages connected to split shifts are often not compensated at all, or only very little. Split shifts can be regarded as hybrid in the sense of blurring the borders between work and non-work. In practice, split shifts are connected to several ambivalences: For instance, split-shift employees are forced to have a break, but this break cannot be spent 'usefully' if employees do not have the option to go home. Furthermore, the interruption may be a break from paid work, but in the employees' lifeworld realities, especially women's, the

'break' is in fact often used for reproductive work. Even if employees can spend their unpaid break at home, they often report that it does not feel like leisure time as they know they will have to get ready and go to work once again soon. Finally, if paid and unpaid work are taken together, split-shift workers may be working from the very early morning until the late evening, but still not have a full-time income, as is often the case in the cleaning and care sectors, where part-time employment, including involuntary part-time, is common.

In brief, this presentation sets out to present this little-known kind of fragmented work based on the state-of-art research and initial findings of a large-scale qualitative research project: the SPLITWORK PROJECT. The research project SPLITWORK (Split Shifts and the Fragmentation of Working Lives; 2018–2021; Austrian Science Fund – FWF: V-598) aims to provide a comprehensive study of split-shift work, studying it on three levels: the worker level, the organisational level, and the legal and political regulatory level. The investigation focusses on two service sectors in Austria where split shifts are widespread: the cleaning sector, with a focus on office cleaning, and the care sector, with a focus on domiciliary elderly care.
This conference presentation will discuss the reasons for organizing work into split shifts, including the employers' and employees' experiences with it, and analyse the problems linked to them. The empirical research is embedded into theoretical perspectives on the shifting boundaries of work spheres (Glucksmann 1995, 2005) and the relationship between 'work' and 'life' (Jürgens 2009).

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Keywords

split shifts, working times, service work

8.04

BUILDING A MEANINGFUL CAREER - CREATING A PERSONAL JOURNEY

Pia Heilmann[1], **Marianne Ekonen**[2]

[1]Finnish Institute of Occupational Health , Helsinki, Finland. [2]JAMK University of Applied Sciences, Jyväskylä, Finland

The prospects for meaningful work and career appear uncertain; the environment has become even more complex due to globalization, technological changes, the flattening of organizations, and numerous career transitions (Baruch, Szücs, and Gunz, 2015; Yeoman, Bailey, Madden and Thompson, 2019). Despitethis, the societal debate on work and careers is increasingly focused on meaningful work, and it is also an emerging topic in the scholarly field (Akkermans and Kubash, 2017).

Calling can be described as "an external summons to approach a life role in a manner oriented toward deriving a sense of purpose or meaningfulness" (Dik and Duffy 2009, 427). In many cases it is a question of creation of meaningful work and career. LaPointe and Heilmann (2014) discovered three kinds of narratives that labelled voluntary career transitions: dreamcatchers, meaning-makers and downshifters. In their study career transition related often to the ambition of constructing a meaningful career.

Boundaryless career discourse (Arthur 1994; Arthur and Rousseau 1996) has emphasized individual agency, mobility and proactive, protean attitudes (Briscoe and Hall 2006). McCabe and Savery (2007) presented a "butterfly have career" progress. This could be identified as an extension and development of the boundaryless career model, where the individual is clearly in charge of his/her career but where he/she "flutters" between sectors in order to build up human capital and progress his/her career (McCabe and Savery, 2007). In other words, the individual builds his/her meaningful career journey in working life by using the possibilities of hybrid forms of work.

In this paper we focus on meaningfulness in work and what are the components of a meaningful career. How individual designs his/her own career based on his/her own values.For our analysis we will collect career stories from Finnish media. In using discourse analysis we approach the texts as producing certain meanings and having consequences (Jokinen et al., 1999). Narratives have an essential role in discursive career construction; narratives are relevant in making sense of careers (Cohen and Mallon, 2001). We contribute to the literature of careers by showing how meaningfulness is present in career stories.

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Keywords

Career, Meaningfulness, Calling

8.05

EMERGING PATTERNS OF WORKER IDENTITIES IN THE SWISS GIG ECONOMY

Thomas Ryser[1], Corsin Flepp[1], Jonas Konrad[2]

[1]University of Applied Science Northwestern Switzerland, School of Applied Psychology, Olten, Switzerland. [2]University of Applied Science Northwestern Switzerland, School of Business, Oten, Switzerland

The gig economy is receiving more and more public attention. The current debate revolves around the inherent ambiguity of the legal status of so-called gig workers. Gig work can be conceptualized internally as a kind of hybrid work form containing rationales of control related to employment as well as the degrees of freedom and flexibility normally attributed to self-employment. Working in the economy is connected to a high degree of ambiguity regarding job security and financial stability, planning and coordination of workloads, as well as broader issues regarding life course planning and career path development. The internal ambiguity of gig work as a newly emerging work form has several implications for the construction of worker identities. Gig workers are required to evaluate the role of the emerging new work form regarding identity development in their actual life span and their career development.

It is proposed, that the respective individual relevance of gig work for professional development as well as the integration in to private and work-related identities generates needs for identity adaptation. Therefore, the construction of new combinations of work related, but in a more general term also life course related identity patterns is expected. To get an exploratory insight into emerging identity patterns, the construction of gig worker identities was analyzed in a qualitative-explorative study by interviewing 18 platform workers of the biggest gig work company in Switzerland. In the interviews narratives of gig worker biographies were evoked and social identity maps visualized. In two subsequent workshops with ten gig workers from the same company the identified patterns were communicatively validated.

The results of the qualitative-explorative inquiry lead to the development of a typology of gig worker identity patterns. Identity patterns can be differentiated on the dimensions of integration of gig work in the actual life course, the relevance of gig work and other life and work domains, as well as the complexity of social identity patterns. Furthermore, the identified patterns are related to different styles of identity integration. More specifically, workers perceiving gig work as a transition in their vocational development can be distinguished from workers, who have developed a mid-term perspective in doing gig work. The development of a more stable perspective is related to hybrid combinations of central identity domains (work or private), compared to more complex patterns in transient forms of gig work episodes. The method of visualizing identity maps can be evaluated as useful for the identification of emerging identity patterns in hybrid work arrangements. So far, the study is limited to the workers of the gig work platform under study, but the applied method of identity mapping seems conducive to the investigation of emerging, identity patterns in other work contexts. A further validation of the developed identity patterns could be used to inform the current debate on the legal status of gig workers.

Keywords

gig work; social identity complexity; social identity mapping

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9.01

EMOTIONAL INJURIES OF PLATFORM WORKERS IN THE VIRTUAL WORLD

Myungjoo Kang, Suyoung Kim

Seoul National University, Seoul, Korea, Republic of

This study analyzes occupational distresses and diseases experienced by platform workers in the virtual space. As the platform economy based on Internet and mobile applications is booming, platform workers, such as YouTubers, Uber drivers, mobile food delivery workers, are increasing. Unlike traditional industrial workers, who go to work at the analog workplaces like factories and offices, platform workers simply connect to virtual platforms to engage in economic activities everywhere and anytime. Thus, their work involves emotional and intellectual interactions in the virtual world, as well as physical activities in the real world. This is likely to make platform workers vulnerable to mental and psychological stresses other than physical accidents that traditional industrial workers have mainly experienced. Through in-depth interviews with 30 platform workers (10 social media platform workers, 10 sharing economy platform workers, and 10 mobile food delivery workers), this study investigates what kind of mental wounds and illnesses platform workers come to face. In particular, this paper describes how platform workers suffer from various psychological wounds and damages due to excessive competition from the open ratings/review systems of platform companies, malicious comments and privacy violations by platform users, and overwork in the virtual space that has no time-space limitation. This study also compares the psychological injuries of platform workers with traditional industrial accidents, and suggests policy alternatives for the digital platform workers.

Keywords

platform workers, emotional injuries, industrial accidents

9.02

THE EFFECT OF RETIRING ON COGNITIVE FUNCTIONING AND SUBJECTIVE HEALTH – AN EMPIRICAL STUDY USING PIAAC DATA

Angela Djupsjöbacka

Åbo Akademi University, Turku, Finland

This paper uses PIAAC survey data to estimate the effect of retiring on cognitive abilities and subjective health, where cognitive abilities are measured via literacy and numeracy. The data is a pooled cross-section covering roughly 40,000 individuals in 25 countries in the age range of 50 to 65. The identification relies on instrumenting retirement as well as years as retired by exploiting the variation in incentives created by country-specific retirement ages. I find no significant discontinuity in cognitive functioning or self-reported health as individuals reach the retirement age. However, I do find a significant trend-break, suggesting that retiring slows down the age-related decline in literacy and numeracy among men.

Keywords

cognitive abilities, retirement

10.01

HUMAN RECOURSE MANAGEMENT PRACTICES ENHANCING AND CONSTRAINING CREATIVITY IN FINNISH GROWTH ORGANIZATIONS

Kaija Collin[1], **Soila Lemmetty**[1], **Sara Keronen**[2]

[1]University of Jyväskylä, Jyväskylä, Finland. [2]University of Jyväskylä, Jyväskylä, French-Guiana

The aim of this submission is to summarize and elaborate the findings of research and developmental project HeRMo (Ethical Human Recourse Management and Leadership enabling Creative Activity in Growth Organizations). The aims of the HeRMo-project were to explore, what is creative action in growth organizations in Finland, and how do structures and practices of ethical Human Resource Management (HRM) support creative action. Apart from this larger aim, in this submission, we focus on findings of two sub-studies of HeRMo-project. The overall aim of both studies was to map various HRM-practices that related to creativity in Finnish growth organizations. In the first sub-study, the aim was to examine practices enhancing creativity, and in the second one, aim was to reveal those practices that might emerge ethical conflicts, thus, constraining creativity.

In recent years, organizational studies have become more and more interested in relations between leadership, creativity and innovations (e.g. Riivari 2016; Collin et al., 2017). In the area of Human Resource Management (HRM), innovativeness and creativity have been seen to be dependent on company's innovation capacity, meaning especially employees' skills and motivation (Jimenez-Jimenez & Sanz-Valle, 2012). According to prevailing understanding, everybody (employees) has a capacity to be creative and act creatively (Loewenberger, 2013) Thus, creativity is approached not only as an individual feature, but also as action taking place in everyday practices of working life (Collin et al.,2017). This is exactly why HRM-practices are seen important in developing personnel's competencies and managing them, as well as for enhancing creativity (Jiang, 2012; Loewenberger, 2013).

The purpose of Human Resource Development (HRD), as a sub-function of HRM accomplished by leaders (Kuchinke, 2017; Lee, 2016), is to enhance learning by motivating employees. Additionally, HRD aims to create organizational culture that supports knowledge sharing and transfer (DeLong & Fahey, 2000; Edwardson, 2008), and strengthen personnel's orientation to change and develop their expertise (Steward, 2007). Several studies have indicated that creativity is linked both with employees' previous competencies and expertise (e.g. Amabile, 1997; Ford, 1996; Runco, 2015; Simonton, 2012; Ness & Soreide, 2014), and continuous learning occurring at work (Lemmetty & Collin, fortcoming). Consequently, as the enhancement of learning has been seen the responsibility of HRD (Loewenberger, 2013), also the support of individual and team level creativity and organizational innovativeness, has been seen to be an important function of HRD (Gibb & Waight 2005; Li, Zao & Liu 2006). However, in the studies in the area of HRD, enough attention has not been paid to the kinds of practices that are relevant for enhancement of creativity (Minbaeva ym. 2009).

The research was conducted within the frames of ethnography and mix-methods. Participating organizations are from the fields of information technology, construction and artistic design, all of them representing fields under constant changes and the requirement of innovating and creativity. The data were collected first, quantitatively, collecting descriptive data with a questionnaire (n = 273) and qualitatively, by interviewing (N = 98) professionals and observing everyday work in organizations. Ethnographic, narrative and thematic analysis as well as statistical tests were utilized as analytical methods. In this submission, interviews were utilized as main empirical data and theory-guided content analysis (Hiesh & Shannon, 2005) as an analytical tool.

Our analysis resulted to the requirements of creativity: sufficient time and freedom, frames and support, competence, collectivity, peaceful work environment and work content. Further, we found various HRM-practices that are in alignment with the requirements of creativity. These include to job design, teamwork, recruitment, career development, training, performance appraisal and compensation, as well as everyday supervision and leadership. As creativity constraining, or ethical conflicts emerging practices, the interviewees described when practices focusing on people's competence development, recruitment, well-being and engagement, were not employee-oriented. Ethical conflict also emerged if fair practices related to feedback, everyday management, amount of responsibility or reward, did not realized. Related to practices on communication and information, an ethical conflict could be formed if, for example, the manager's or CEO's speeches, promises and actions of organization were contradictory, the decision-making was not open, the information did not reach the employees or it was not understandable. One very clear ethical conflict in organizations was formed when the organization's structures, processes, responsibilities and strategy were not clear.

The findings of this project provide more understanding on HRM practices where both flexibility and ethicality are realized. How one could best support professionals' creativity and learning with these practices is also explored. The findings can be utilized in organizational and creativity research, as well as in practical developmental work to support professionals' well-being not only in the organizations participating in the project, but also more broadly in working life.

Keywords

HRM-practices, creativity, growth organizations

10.02

ORGANIZATIONAL LEADERSHIP AND INNOVATION: ROLE OF INFORMATION SKILLS

Farhan Ahmad[1], Gunilla Widen[1], Isto Huvila[2]

[1]Åbo Akademi University, Turku, Finland. [2]Uppsala University, Uppsala, Sweden

Organizational top management plays an integral role to the development of organizational innovation. According to upper echelons theory, organizational outcomes are determined by organizational leadership's personal characteristics, experiences and capabilities, which shape management of people, policies and work practices as well as organizational strategic direction (Hambrick & Mason, 1984; Gerstner et al., 2013). Based on this theory, previous research has identified a number of leadership characteristics, such as leader's vision, leadership style, self-confidence and narcissism, which can influence organizational innovation (Gerstner al., 2013; Makri & Scandura, 2010). Nevertheless, we do not find any study that explores information skills — capability to acquire, asses and effectively utilize information in decision making — of organizational leaders and their influence on organizational innovation performance. Theoretical arguments have suggested that information handling skills of leadership contribute to organizational creativity by positively affecting decision making (Chang, 2017; Mueller et al., 2013), but empirical evidence of such an effect has been lacking. Therefore, the aim of this paper is to assess the impact of organizational leaders' information skills on organizational innovation performance.

We employed quantitative research methodology to test our hypothesis. A survey was sent to senior leaders of Finnish organizations, which resulted in 184 complete responses. Following the guidelines of Hair et al. (2017), we employed partial least square structural equation modeling to test the hypothesis.

Our analysis showed that information skills of top management enhances organizations' overall innovation performance. Moreover, this relationship is not contingent upon leaders' personal information network. It means information capabilities spurs innovation regardless of size and diversity of potential information sources available to mangers, which underlines a universal value of managers' information skills for organizations. Too much information, according to Ellwart (2015), has become a major cause of ineffective decision-making. Strong information skills allow organizational leaders to understand business's strengths and weaknesses, to take timely decisions and make appropriate strategic choices, which translate into business efficiency and innovation. The present findings contribute to upper echelon theory and information literacy research by underlining the role of management's information processing capabilities in organizational innovation.

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Keywords

organizational leadership, information skills, innovation performance

10.03

EMPLOYEES' VIEWS OF WORKPLACE INNOVATIVENESS IN THE FINNISH PUBLIC SECTOR: WHAT IS THE ROLE OF PSYCHOSOCIAL RESOURCES?

Laura Pekkarinen

Keva, Helsinki, Finland

Public sector employees are well-educated and highly motivated in Finland. However, this does not always result in innovative practices at work. Workplaces vary in their innovativeness in terms of how they develop their current work practices and experiment new work practices. This study investigates, which psychosocial resources, namely employees' job control, fair management and trust in teams are related to how public sector employees assess their workplace innovativeness.

The data for this study were drawn in 2018 from a survey of a representative sample including 3070 employees who work in the Finnish public sector, comprising the local government, State, and Evangelical Lutheran Church. The survey was conducted by Keva (public pensions institution). The results show that workplace innovativeness does not vary according to employees' personal characteristics (including age, gender and profession). Instead, employees' job control, and both fair management and trust in team members are related to workplace innovativeness. Particularly the trust results in innovativeness: 67 % develop their current work practices and 52 % experiment new ones, as compared to those who do not trust their team members (27 % and 23 %, respectively).

The study suggests that to enhance workplace innovativeness, effort has to be put into the psychosocial resources, that is the employees' possibilities to control their job, fair managerial processes and particularly team climates that build on trust.

Keywords

psychosocial resources, job control, trust, management, work practices

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10.04

HOW CAN PRACTITIONERS IN SUPPORTING FUNCTIONS EMBRACE A STRATEGIC KNOWLEDGE WORKER ROLE IN ORGANIZATIONS

Eija Kärnä, Virve Jalonen

Haaga-Helia university of applied sciences, Helsinki, Finland

Work roles and practices change in today's rapidly changing global and fragmented business environment. Work in organizations develops from rigid top-down processes and matrix structures towards more knowledge-intensive ways of work and agile, self-organizing processes in large complex networks. Co-creating knowledge and value in these more dynamic processes demand new perspectives to understand how to empower proactive employee roles and ensure successful knowledge practices.

The new economy demands a systemic view and a broader perspective to open strategizing. It is vital for all members to build common understanding and share the same mission, vision and strategy. Employees' knowledge sharing and creating processes need to be enabled in both face-to-face and virtual environment. More than management, employees need leadership support and encouragement to release their activity and use their creativity to solve problems, innovate and create value in practical multidimensional collaboration. Reorganization of work cannot be planned from the top as we are used to.

While the world becomes more technical, the role of knowledge work becomes even more important. In both theory and practice, there are still conflicting ideas of what we mean with knowledge work and knowledge workers. Too often, knowledge work is seen narrowly as ICT work. However today, ICT is an important part of all practitioners' work. There is awareness of that knowledge cannot be "managed", but less discussion on how we can encourage and develop knowledge worker roles and work processes.

The role of boundary-spanning individuals at the interface of the internal and external units are critical for knowledge-flows, learning and innovation in complex organization structures. Middle managers' boundary-spanning positions have been identified, as they mediate strategic knowledge in social networks. Practitioners in supporting functions can have even more boundary-spanning roles beyond business units and with an overarching view of the organization culture and people.

The potential of supporting functions is little addressed in research, nevertheless, they often involve knowledge processes that are elementary for the core functions' success. Supporting functions are considered rather an administrative necessity than a source of competitive advantage. However, the role of supporting functions is changing when organizations open their boundaries to global networks. Employees in supporting functions need higher levels of creativity and innovativeness, problem solving, flexibility, interdisciplinary cooperation and learning. Better understood and enabled, practitioners with good knowledge of the organization and its people and with good social and ICT skills would have great potential to facilitate changes in organizations.

For the research of management, the changes in working life mean opening up new perspectives cross-disciplinary. Strategic management, Knowledge management (KM) and Strategic human resource management (SHRM) have focused on managers' processes instead of other organizational actors'. Strategy-as-Practice -research (SAP) has addressed micro-level strategic practices, but mainly of top and middle managers. SHRM research has seen employees more as stagnant resources instead of self-organized change agents. More research is needed on knowledge workers' self-directing practices as change agents.

The *purpose* of this research is to examine strategic knowledge worker roles of practitioners in supporting functions such as officers, specialists, coordinators and assistants working within HR, communications, office or service management etc. The *research question* can be formulated to

How can knowledge workers' proactivity and value creating potential be constructed in supportive functions in knowledge-intensive organizations?

The research is important because the role of knowledge work and supporting functions develop rapidly in line with economic and technological changes. Empowered practitioners in strategic facilitating roles can have major roles in the organizations' success, acting as controllers, helpers, linkers, networkers, organizers, sharers, solvers etc.

The research process has started with gathering information through interviewing so far 22 practitioners of supporting functions in modern knowledge-intensive organizations, asking about their perceptions of the nature of their work, and how their working practices are changing in the changing economy.

The aim is to choose among these informants a group of practitioners with the most interesting work roles in rapidly growing organizational settings to continue the research with constructivist intent. Through co-creative activities together with the practitioners the meaning is to understand how these practitioners perceive they can embrace an even more aware, pro-active role as a strategic knowledge worker, helping the organization to succeed in the new ways of work.

The participants have an explicit professional role in growing, knowledge-intensive organizations and represent different phases of tenure. Gender is not regarded relevant to answer the research question. However, practitioners in supporting functions are often female. Giving voice to these often 'unnoticed' practitioners can be valuable from the emancipatory perspective.

A qualitative, constructivist, empirical approach contributes to strategic management, KM and SHRM research highlighting how to construct knowledge worker's proactive, strategic and value creating role.

Keywords

Knowledge worker, strategic, supporting functions, value co-creation

10.05

MANAGERS AS MORAL LEADERS: MORAL IDENTITY IN THE CONTEXT OF WORK

Mari Huhtala[1], **Päivi Fadjukoff**[1], **Jane Kroger**[2]

[1]University of Jyväskylä, Jyväskylä, Finland. [2]University of Tromso, Tromso, Norway

Modern work requires innovations, but leading a positive and creative work climate should be done by following sustainable and responsible practices. Here, one key issue is the morality of the leader.

There is rising interest in moral identity in the leadership domain, but there is a significant gap in our knowledge regarding how managers become 'moral leaders'. In this qualitative study, we examined leaders' personal experiences in their moral decision-making processes at work. Differences in the styles by which leaders address these conflicts can inform us about leaders' moral identities operating within organizations. The following questions guided our study: 1) Are there differences in the styles by which business leaders address moral conflicts? 2) If so, what factors are associated with these differences in style? 3) What is the potential role of the context in relation to these styles of addressing moral conflicts? 4) Do these styles inform us about how leaders' moral identities operate within organizations? An identification of such styles may hold important implications for professional development and supporting moral behaviors within organizations.

Altogether, 25 leaders (12 men and 13 women) were interviewed. They worked in the public sector (19), private companies (3), or had their own company (3). We used the critical incident technique as the basis for interviews to elicit personal reflections related to an actual moral decision-making situation they had experienced. The data were analyzed using a three-step inductive content analysis: identifying common themes related to the way individuals described how they had tried to resolve the situation, organizing and categorizing these themes, and finally using higher-order classification and abstraction.

We found that the leaders differed regarding the processes of exploration of and commitment in decisions about personal moral values. Their stories can be understood through Marcia's Identity Status Paradigm, in which four different styles of moral decision making were identified. Moral identity diffusion was indicated by lack of a personal moral value framework; moral conflicts by this group of leaders were experienced as recurring and discomforting problems with no solutions. The moratorium moral identity status was distinguishable from the diffusion status based on active measures the moratorium leaders took to resolve conflicts. The foreclosed moral identity status leaders adopted their values from others, without personal exploration; these values were also resistant to change. Achieved moral identity status leaders showed agency in constructing their moral values as well as persistence in acting according to these values, even when facing conflicting pressures. The leaders also recognized several personal and contextual influences that had affected their moral decision-making, connecting their identity processes with the context.

Based on our study, the identity processes of exploration and commitment intertwine with moral agency. When in a managerial position, a leader has to be able to commit to certain moral principles because of their potential to influence others by making important decisions and acting as role models. If the leader lacks a coherent and consistent basis for their decisions and actions, it can be a great strain on an organization as well as the leader him- or herself. However, rigid adherence to certain moral values and actions can also be problematic. Moral dilemmas are often multifaceted and contextual, meaning that leaders should have the ability to adapt their actions and decisions, depending on the situation. Strong commitment alone could direct the leaders towards making rigid or even unethical decisions; one might adhere to surrounding values and practices that might not always be moral in nature. Moral agency, however, includes taking personal accountability and an active role in exploring and committing to moral values.

As a conclusion, having an achieved moral identity should be a desired developmental outcome in the leadership domain. Following self-chosen and personally meaningful moral values is likely to endure across settings, present a strong role model to employees, and decrease the risk of leaders' unethical behaviors within the organization. Moral leadership has also been shown to positively relate to employee creativity in previous research. We can therefore assume that a leader with a strong moral identity can also be a promoter of employee innovation.

Keywords

morality, leadership, identity

10.06

GENDERED LEAN LEADERSHIP IN PUBLIC WELFARE SERVICES

Timo Aho[1], Helena Hirvonen[2,1], Laura Mankki[1], Iiris Lehto[1], Eeva Jokinen[1]

[1]University of Eastern Finland, Joensuu, Finland. [2]University of Jyväskylä, Jyväskylä, Finland

Lean model has become one of the most popular ways to organise work and services worldwide. With its origins in Japanese, post-WWII era automobile industry, Lean is a management philosophy (”The Toyota Way”), which was later refined and named as 'lean' by the group of American management consultants. Lean intends to organise work and services with emphasis on customer needs and elimination of waste and inconsistency in the production system. The goal is to make processes flow as efficiently as possible through constant improvement, streamlining, standardising and measuring of work and service processes. As a by-product, organisation's cost-efficiency is also expected to increase. Lean promises to give ”more with less”. Although this may sound tempting, a body of research shows how difficult it is to imprint lean to an organisation's daily practices and culture. Transformation into ”a lean organisation” requires the involvement and commitment from the whole personnel to learn to think and act according to Lean methods on a daily basis. Only doing your work is not enough. Instead, employees are expected to be active, eager and creative team players who together with their colleagues incessantly look for waste in their work, share their ideas and reflect their solutions for eliminating it. Studies suggest that the challenge of Lean is to encourage people to actually change their daily working habits while remaining excited about continuous improvement.

According to lean literature, leadership is the most important single factor behind succesfull implementation of Lean model. Unlike Taylorism that is based on managing front-line workers from top-down, Lean represents a coaching leadership style that is supposed to engage workers. It aspires to “tease out” the employees' embodied potential entirely for the team's and organisation's use. Leaders and managers are responsible for generating an athmosphere that is supportive of generating creative ideas and innovations, and that encourages employees to raise problems and propose solutions for improvement. Experiments and failures should not be feared. Instead, they are essential for learning and improving. Thus, Lean leadership foregrounds such qualities as one's human relations skills, emotional competence and psychological eye. The aforementioned qualities and skills are typically labelled as ”feminine” and thus attached to women. Yet, it is striking how gender is almost completely ignored in Lean leadership research as well as in other literature on Lean. Lean leadership is conceived as gender neutral activity.

In this presentation we discuss lean production from the point of view of gendered leadership. It is based on empirical research conducted in the field of public welfare service work which is typically dominated by women. Drawing on interview data collected from Lean experts, Lean workshops and training events, we ask how gender is employed and exploited in the Lean leadership practices. According to our preliminary findings, Lean leadership practices employ strikingly conventional and dichotomic attributes and skills attached to gender. While ”masculine” leadership ideals (rationality, authority and assertiveness) are typically celebrated and held as preconditions of a good Tayloristic manager, Lean leadership, in contrast, favours ”feminine” skills that are culturally attached to women, from whom good “people skills” and the ability to perform emotion work and expected in working-life. ”Feminine” leadership skills could be promoted also because women are not presumed to seek power and authoritative positions in working life to the same extent as men.

The presentation is part of the research project ”Lean production in public services: new formations of work and gender in biocapitalism (2018-2022)”. The project examines Lean production and its effects in public service work from a sociocultural point of view. The project is funded by the Academy of Finland.

Keywords

lean leadership, gender, welfare services

10.07

WORKING-LIFE INTUITION – A NEW META-SKILL FOR FUTURE WORK

Satu Mättö[1], Mirjami Ikonen[2], Taina Savolainen[2]

[1]Doctoral student, University of Eastern Finland Business School, Joensuu, Finland. [2]University of Eastern Finland, Joensuu, Finland

This study introduces a new concept of working-life intuition to be conceptualized as an intuitive meta-skill for future workers, cultivating constant and continuing learning. Previous managerial research has focused strongly on what intuition is and what it is not. We look at intuitions and intuitive skills

in a more broadly manner, discussing and illustrating how working-life intuition could be used as a working-life skill.

Knowledge is a central resource of today's information society and an eminent source of competitive advantage for organizations. Employees' knowledge sharing within an organization requires both interpersonal trust and trust towards the organization. As the ability to produce new knowledge is a constant challenge for management, scholars have shown growing interest in intuition, both as a source of knowledge and a way of processing large amounts of information fast. Intuition plays an essential role in decision making, Nobel laureates appraise intuition for their inventions and entrepreneurs are shown to use intuition in many ways.

Working life is struggling with change and constant learning is a necessity for future's employees to stay competitive. While AI is replacing routine jobs, highly skilled professionals are expected to act like entrepreneurs. Future workers need working-life meta-skills that are applicable to diverse problems, and, in tandem, ensure their personal expertise, social skills and innovativeness.

We make a critical narrative literature review on recent management and related behavioural research on intuition, complement it with studies of related constructs, and conceptualize a new intuitive skillset for working-life. In management literature, the definition "intuitions are affectively charged judgements that arise through rapid, nonconscious, and holistic associations" (Dane & Pratt, 2007; 40) of managerial intuition is widely accepted. Intuition is considered both the outcome and the intuiting process itself. We analyse systematically varying concepts of intuition defined in the literature and compare them with the characteristics of Dane & Pratt's (2007) managerial intuition; speed, non-consciousness, emotions attached and the holistic nature of the intuiting process. We show that entrepreneurs, profile models of future workers, use intuition in several ways (Dane & Pratt, 2009; Hyppänen, 2014; Kakkonen, 2006; Sadler-Smith, 2015; Sadler-Smith, 2016) and intuitive skills connected to entrepreneurs appear to resonate well with the desired working-life meta-skills. We enquire into other intuitive constructs (that are not considered the same as intuition) that share some, or all, of the attributes of managerial intuition. Our results synthesize different intuitions and intuitive abilities into a versatile intuitive skillset for working life, named working-life intuition, operating in three social levels; 1) individual, 2) interpersonal and 3) systemic level. Trust is identified as a moderator and lack of trust a potential hindrance of intuitive knowledge sharing in each social level. According to our results, working-life intuition is a new, multilevel and multidisciplinary concept that appears to be intertwined with trust.

Previous studies have manifested the difficulty of studying intuition as a non-conscious construct. Further studies, of qualitative nature, are recommended, to cover the many facets of intuition and its dependencies in organizations. Suggestions are made for qualitative studies on working-life intuition, on the connection between trust and working-life intuition in different social contexts, and whether working-life intuition as a working-life meta-skill can exist without trust, or vice versa.

Keywords

intuition, trust, future work, management, organization, skill, knowledge

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10.08

SEARCHING FOR COLLEAGUESHIP – A LOOK AT 25 YEARS OF RESEARCH

Maarit Laiho, Arto Ryömä, Satu Teerikangas

University of Turku, Turku School of Economics, Turku, Finland

In prevailing leadership research, leaders are brought to the fore; they remain predominantly subjected to master the performance of their organization (Abreu Pederzini, 2018). Recently, pluralistic approaches (Denis et al., 2012) have called for shared responsibilities and raised awareness of the role of followers (Collinson, 2006). However, in contemporary organizations, the hierarchical roles of leaders and followers often conceal another. Namely colleagueship, the phenomenon of leadership among colleagues, who might hold relatively equal positions in an organizational hierarchy, remains underexplored in organization studies.

Colleagueship is undoubtedly critical to organizational performance. Contemporary organizations are increasingly dependent on competent and committed human resources (Becker et al., 1997; Hatch & Dyer, 2004). In turbulent environments (Brown & Eisenhardt, 1997), daily cooperation and peer support between colleagues comes into focus. However, extant research appears not to explicitly focus on the role of colleagues. Thus, our study diverges from leader-driven approaches and emphasize the meaningfulness of each colleague at work. The main research question guiding our study is: What is known in previous literature on colleagueship at the workplace? Our study is based on a systematic review of extant literature on the role of colleagues at the workplace. This abstract offers the preliminary findings from the review.

A three-stage iterative process was conducted in order to systematically review the research published in leading management and organization journals (Theurer et al., 2018). In the first phase, we noticed that colleagueship is not an established concept in academic research. In a second phase, we sought to obtain a preliminary understanding of the themes describing or relating to notions paralleling colleagueship. We scanned the volumes 2013-2017 of fifteen leading management journals, issue by issue, reading and categorizing article titles and abstracts. This preliminary search yielded the following search terms: colleague, coworker OR co-worker, collaborativ* and interpersonal(*). The scarcity of prior research directly referring to colleagueship led us to refine our research question to: What are the conceptual components that describe or may be associated with colleagueship? In a third search phase, we moved toward a systematic search for papers using the previously identified keywords. The search spanned a 25-year period (1992-2017), resulting in a total of 1168 articles. With this sample, we proceeded to several rounds of analysis. In a first round of analysis, titles and abstracts of the identified papers were classified according to their relevance. This reduced the sample to 900 articles. The subsequent analysis was conducted by thematizing, resulting in a first categorization of the findings into 49 themes. A second round of categorization refined these preliminary themes into nine meta-themes: Social and interpersonal dynamics, Affective components, Pro- and anti-social behaviors and attitudes, Information flow, Belongingness, Values, Similarities and differences, Power and status, and other themes.

Our systematic review shows that whilst colleagueship itself is not researched, it is indirectly researched as part of other central organizational themes and as an implication in organizational life. It is thus that extant literature has studied how colleagueship affects but also how it is affected by emotions, knowledge, performance, social variables, technology, environmental context, power, status etc. In many cases, articles deal with aspects of colleagueship as implications or as a secondary theme in management or organization research settings that are not directly linked to colleagueship. In other words, there is little explicit focus on colleagueship as a concept, or its related interpersonal dynamics. Our analysis leads us to observe that colleagueship is perceived as both an inward state and a behavioral attribute. Colleagueship does not only refer to horizontal relationships, but it seems to be applied in vertical relationships as well. Moreover, colleagueship appears not only in intra-organizational but also in inter-organizational relationships.

The main contribution of our paper is in recognizing an opportunity to re-introduce the concept of colleagueship into management and organization research. We extend research by highlighting and conceptualizing the notion of colleagueship. In so doing, we bring attention to and emphasize the significance of each organizational member. While we use the concept of colleagueship, we refer to a continuous co-construction process in which acts of colleagueship in everyday actions have a locally supported influence on the collegial social order (see Hosking, 1988). In fact, our notion of colleagueship is comparable with certain aspects of shared leadership. Paralleling developments in leadership research, our focus is not directed at individual leaders and their excellence. Instead, we acknowledge that power is distributed throughout an organization among all of its members.

Keywords

colleagueship, shared leadership, literature review

11.01

WHEN BIG DATA BECOMES SMALL DATA: THE DATA PROTECTION IMPLICATIONS FOR SERVICE PROVIDERS IN THE SHARING ECONOMY

Gail Maunula

University of Turku, Turku, Finland

Introduction:

This research seeks to interpret and address the data privacy and protection issues that transpire when Big Data is handed off as Small Data by Sharing Economy Platforms to service providers (workers). Further, the research analyzes the impact on the execution of work duties for these service providers that have, through this data transmission, become data processors (and in some cases, joint data controllers) under EU law. Placing responsibility upon Sharing Economy (SE) service providers within the data protection compliance scheme adds to the growing list of labor protection concerns stemming from the status of these "workers" as independent contractors. The failure of Sharing Economy Platforms to properly identify and inform these service providers of their potential liability under EU Data Protection Laws places both the Platform, the end-consumer (those receiving services) and the service provider at risk.

Big Data in the Sharing Economy:

Sharing Economy Platforms (SEPs) are the great "matchmakers" of our time, bringing together service providers with an abundance of a particular

resource with appropriate end-consumers in need of that resource. SEPs have exploded in popularity while meeting many of society's social, environmental and economic needs. These important SEP functions are powered by the intake of large quantities of (pre-transactional) Big Data that allow algorithmic computations used to screen users for participation in the platform community and pair suitable transacting partners. This Big Data takes the form of geo-location data, photos and descriptions of personal property, to name a few.

Big Data Becomes Small Data:

Big Data in the form that brings value to SEPs is useless in the hands of the service provider or end-consumer making decisions about whom they deem trustworthy enough to engage. It is worth noting that the contracting decisions made by service providers and end-consumers are often made in the field (as in the case with ride-sharing service provider making the decision to pick up a rider), and frequently require interaction with strangers, once virtual, in very real, personal spaces (such as personal vehicles and personal homes).
In order to assist with this, often rapid, decision-making process, the SEP, after using the gathered Big Data for its functions, must pass this data on to users (both service providers and end-consumers) in a "usable, informative and actionable" (1) form. The data passed down are described as Small Data and is derived from SEP gathered Big Data. Unlike the widely diverse, voluminous, high velocity, analytically valuable Big Data, Small Data delivers pertinent information small enough to be processed and comprehended by SEP users and their devices (2). Thus, Small Data is human, as opposed to machine, decision-making data. And, importantly, Small Data is indeed personal data

Small Data in the Hands of Service Providers:

While Small Data is valuable for both SEP user categories - service providers and end-consumers - it is the unique position and burden placed upon service providers that will be analyzed in this research. This research will be among the ongoing research focused on the protections, or lack thereof, for service providers as they seek meaningful work within the Sharing Economy while relegated to the status of independent contractor. The data protection implications have, thus far, gone unexplored.

The preliminary research conducted on this topic shows that there is not only a failure to properly inform and instruct service providers on their responsibilities as data processors, there is also a critical failure to identify them as such. In general, the privacy policies read as if the SEP is the sole data controller and processor of both service provider and end-consumer personal data, in the end-consumer data (3). This places a great responsibility on the shoulders of service providers.

Data Protection Issues for Small Data Users in the Sharing Economy:
The handling and use of end-consumer personal data by SE service providers is a form of processing as defined by the EU's recently implemented General Data Protection Regulation (GDPR). Further, data processors are subject to tightened liabilities and responsibilities under the GDPR.

Typically, the data controller/data processor relationship is dictated by contracts that explain the extent of the processing and how data subject rights are to be protected and exercised. In the SE, service providers, in their role as independent contractors are not addressed as data processors. Therefore, the privacy policies that appear on SEPs fall short of proper instruction for the handling of personal data. Additionally, employment contracts and relationships, which would provide further instruction and training for handling personal data do not exist for these service providers. It is necessary to address these service providers as data processors and prepare them for this role. Recent news stories involving service providers videotaping end-consumers during Uber rides and using this data illegally will serve as real-world examples of this growing problem.

(1) EDUCBA (19 Feb. 2018.). Find Out 10 The Difference Between Small Data Vs Big Data. EDUCBA. Retrieved from https://www.educba.com/small-data-vs-big-data/

(2) John Spacey (n.d.). 8 Examples of Small Data. Simplicable. Retrieved from https://simplicable.com/new/small-data
(3) The SEP also uses third-party processors for activities such as payment processing. However, the service provider does not fall under this categorization.

Keywords

Big and Small Data, sharing economy, service providers

11.02

EMPLOYER FUNDED EDUCATION AND TRANSITIONS IN WORKING LIFE – TWO EXAMPLES

Jari Murto
University of Helsinki, Helsinki, Finland

Especially during last two year has such terms as lifelong learning, developing and maintaining the occupational skills of employees gained the significant role in labour market discussions in Finland. According to some estimations, employees must change their employer even over ten times during their working life. Due to that, the role of legislation which helps in these kinds of transitions have gained a lot of interest. Therefore, the aim of the paper is to describe two legislative solutions in which employer is paying education either compulsory or voluntarily. Also, the concepts of active labour market policy and the transitional labour market are presented, because these are closely linked this phenomenon.

The first example is employer's obligation to offer employer-funded coaching or training for employee dismissed on collective grounds. When employer employs more than 30 persons and employees' employment relationship has last minimum five years, employee is obligated for coaching or training funded by employer. The sum must in general correspond employees one mounts salary. This obligation imposed on the employment contract act.

The second example is the joint acquisition of training imposed on the act on public employment and business service. The joint acquisition of training means that the labour market training could be implemented together with the employer. Employer also participates in the funding at least partly. The detailed content of the joint acquisition of training is based on services provided by TE-Offices. There are three type of services available at the moment: 1) Recruiting training is planed when employer is seeking new work force and additional training is needed. 2) Precision training is planned when there are changes in employer's own business and employees need education in order to keep their jobs. 3) Change training is planned situations when there are collective redundancies and change security measures are actual. The aim of change training is to prevent unemployment and help re-employing.

Keywords

Labour law, education, transitional labour market

11.03

QUEST FOR WORK-LIFE BALANCE: NEW EU MEMBER STATE PERSPECTIVE

Helga Spadina

Josip Juraj Strossmayer University of Osijek, Faculty of Law, Osijek, Croatia

Following establishment of the European Pillar of Social Right, matters of work-life balance and women's under-representation in the labour market came under the spotlight of the European Union. In 2017, European Commission presented elaborated Proposal for a Directive on Work-Life Balance for Parents and Carers. This Proposal aims at supporting women's career progression through improved conditions to reconcile working commitments and private life. It also seeks to introduce new rights for women and men, addressing the equal treatment and opportunities in the labour market, promoting non-discrimination and fostering gender equality.

While the idea behind Proposal is indeed much needed to improve gender equality and stimulate better work-life balance, in this research we explore possible implications of introduction of new rights in the newest EU Member State – Croatia - struggling with gender inequality in the labour market, discrimination of women because of pregnancy and parental rights and one of the lowest EU rates in use of paternity leave.

This paper will use qualitative legal analysis of proposed Directive, national laws and regulations and implementation measures in Croatian context. It will also use available data on gender discrimination in labour market from annual human rights reports and reports on gender equality. Finally, it will use quantitative official statistical data related to the use of parental leave in Croatia and will analyse possible impact of implementation of proposed Directive on work-life balance in the light of those statistics.

Research conducted for this paper might provide valuable contribution in current discussions on impact of EU work-life balance policies, as well as

more detailed insight into the challenges and opportunities of new initiative in one of the least advanced EU Member States in the area of gender equality in the labour market.

Keywords

equality, work-life balance

11.04

THE REGULATION OF ZERO-HOUR AND MARGINAL PART-TIME CONTRACTS IN FINLAND AND THE NETHERLANDS

Markku Sippola[1], Paul Jonker-Hoffrén[2], Satu Ojala[2], Jouko Nätti[2]

[1]University of Helsinki, Helsinki, Finland. [2]University of Tampere, Tampere, Finland

Marginal part-time work and zero-hour contracts as new types of employment are increasingly used by European employers. Such contract types are largely used in service sector employment in Finland and the Netherlands. In Finland, the right-wing government decided to consolidate the legal status of zero-hour contracts by introducing the term "contract with changing working hours" in June 2018. As a "trade-off", the Finnish government made it easy for zero-hours workers to get compensation for sick leave and in the case of dismissal. In the Netherlands, the Social Pact concluded between the social partners in 2013 aims to restrict the use of zero-hour contracts, as the Dutch labour market is seen as "too flexible", with consequences for the status of collective agreements and social security. In the Netherlands, the use of zero-hour contracts is restricted to the first 26 weeks of the labour contract, after which it has to be a possibility allowed by the collective agreement.

The legally established status of zero-hour contracts in Finland does not, however, prohibit single trade unions from including tighter clauses in collective agreements concerning zero-hours contracts for employees working in the sectors they represent. The agreements can also provide frames of reference for legislation. For example, the sectoral agreement in the Finnish construction served as a benchmark for the 2018 law on changing working hours. In the Netherlands, the Social Pact of 2013 obliges the labour market partners to explicitly agree on the use of zero-hour contracts in collective agreements, limiting these to "exceptional" situations. Also the Minister of Social Affairs can restrict the use of zero-hour contracts.

In current study, our focus is on the changing zero-hours related legislation in the two countries, plus on the scrutiny of (legally-binding) sectoral collective agreements. The analysis of the collective agreements concerns the service sector in both countries. In Finland, the Service Union United (PAM) and its collective agreements on retail (valid for 2018-2020), travel, restaurant and freetime services (2018-2020), real estate (2018-2020) and security (2016-2018) are taken into examination. Correspondingly in the Netherlands the care sector collective agreements (hospitals, care homes, disabled person care (2017-2019)), travel (2016-2018), retail (2017-2019) and security (2017-2018).

We will also place the results of the analysis on the developments in collective bargaining against the backdrop of overall trends in zero-hour and marginal part-time contracts in Finland and the Netherlands. A statistical outline (based on e.g. Finnish labour force survey in 2014) on zero-hour and marginal part-time contracts provides us a picture of general development of precarity in the labour markets. The underemployment associated with falling income levels – which such contracts bring about – is certainly a major cause for precarity. The paper ends with the elaboration on how the concept of precarity in connection with zero-hours contracts is taken into the agenda of labour market parties in Finland and the Netherlands.

Keywords

zero-hour contracts, part-time jobs, regulation

12.01

‘THE TIMES, THEY ARE A-CHANGING’. AVAILABILITY, FLEXIBILITY AND DESYNCHRONISED WORK

Adrian Madden, Sian Moore

University of Greenwich, London, United Kingdom

Over the course of the past 25 years, the social and economic domains of our lives have become increasingly integrated through the dual axes of globalisation and technology. The emergence of what Hassan (2005) calls the ‘chronoscopic society’ describes the emergence of a global 24/7 network driven by constancy and demand. As a result, the traditional rhythms and patterns of work and life have become disrupted by the imperatives of acceleration and immediacy (Virilio, 2006) resulting in the compression of work time and space and the erosion of work and life boundaries. In this 24/7 ‘on-demand’ world, availability and flexibility have become the touchstones of the modern worker.

The aim of this paper is to investigate the implications of the changing nature and experience of time and work in the 21st Century and the implications these have for our collective well-being and long-term attachment to work. We have known for some years how the time disruption associated with shift work affects our circadian rhythms, our work performance and our personal lives. Recent research even suggests that there are body clocks inside virtually every cell in our body and their disruption is linked to many physical and psychological disorders. While concerns about the impacts of work-life integration are hardly new, there has been very little sustained thinking about the social implications of disrupted temporal structures heralded by ‘24/7 capitalism’, particularly in light of the growth of flexible work and non-standard work contracts.

Technology now enables management to plan and organise work through individuated temporalities masquerading as flexibility and preference, with no notion of ‘unsocial’ hours. Flexibility is feted as autonomy over working time, suited to the preferences and lifestyles of particular groups in the labour market. Yet contractual relationships such as ‘self-employment’ belie the subtle yet direct organisation and surveillance of work. For many, technology means work is underpinned by both continuous surveillance and self-surveillance, giving companies ever-greater control over the work relationship with minimal transaction cost. Through the biopolitical manoeuvre of ‘choice’, the employment relation is reduced to an app-based transaction for work scheduling, with performance measurement similarly achieved for many through electronic surveillance.

Our starting point to explore these temporal disruptions is E.P. Thompson’s seminal writing on the synchronisation of work secured under industrial capitalism (1967). Where Taylorism once celebrated the organisational achievement of collective synchronisation on the factory floor, the desynchronisation of work enabled by technology reflects profound changes to the institution of work, as a source of personal well-being, collective stability and social identity. Desynchronisation functions through the flexibility and availability of the worker, appropriating personal, family and social time, removing spatial and temporal opportunities for social integration and the collectivity necessary to challenge disruptive demands on time. Some studies into non-standard work contracts provide some insight into how people respond to this new temporal order. For example, many working in zero-hours contracts, minimum-hours contracts or so- called ‘self-employment’ must be ever-ready for offers of short-term work or face anxieties about the loss of future work. To meet the demand for immediacy, workers must be in a constant physical and mental state of ever-readiness, expected to sacrifice holidays, breaks or even the offer of other work in order to be available for guaranteed short-hour contracts. Constant availability means that work-life boundaries and long-term careers for many in the UK and elsewhere are becoming symbolic of a past age, with little basis for long-term planning, continuity or reflection on which many social institutions rely.

We understand very little about what it means to be ‘available’ or ‘ever-ready’ for work in order to secure sufficient paid hours to make a living; we know even less of the implications of increasing self-surveillance and self-discipline embodied by platform and smart technologies that eat away at the boundaries between work and private time, the very institution of work.

In this paper we seek to discuss and develop the idea of desynchronisation, what it represents in terms of temporal disruption and the effects it has on individual and social well-being. How do workers in casualised jobs cope with the changing temporal orders of work that once underpinned the rhythms and rituals of the working day, the working week and their social lives?

Keywords

desynchronisation, technology, temporality

12.02

CO-WORKING IN THE SOCIAL FACTORY: FREELANCING AND THE RESIDUAL CULTURES OF WORK

George Morgan

Western Sydney University, Sydney, Australia

An annual survey by Deskmag magazine (Foertsche, 2018) suggests there has been a spectacular global growth in co-work spaces over the last ten years. While the rise of freelancing suggests a growing market for such spaces, it is important to subject these claims to critical scrutiny. This paper will explore the emergence of co-working as discursive category as much as a concrete social arrangement. It will consider the extent to which the ethical principles of co-working – collaboration, mentorship, skill-sharing – are realised in practice, and whether the co-work communities can be effective substitutes for the communities of practice constituted by traditional workplaces. It will argue that, while neo-liberalism and digital communications threaten to disperse and isolate immaterial labourers, the rise of co-working demonstrates the residual power of modernist work habits: eg through the desire to separate the public and private, and to be part of a collective culture of work. Furthermore, the paper will seek to establish a general taxonomy of the 'labouring commons' based on the recognition that working-in-parallel takes place informally in a variety of public spaces – eg cafes (or 'coffices'), public libraries etc - and in the formal spaces that house a range of forms of work – start-up incubators, maker-spaces, creative spaces as well as co-work spaces for digital freelancers. The paper is based on data from interviews with convenors of independent co-work spaces, and their co-working clients in a variety of locations including Sydney, Ho Chi Minh City and Reykjavik.

Foertsch, C (2018) '1.7 Million Members will Work in Cowork Spaces by the end of 2018' Deskmag http://www.deskmag.com/en/1-7-million-members-will-work-in-coworking-spaces-by-the-end-of-2018-survey

Keywords

precarity freelancing co-working

12.03

WORK AND LEISURE IN THE DIGITAL AGE

Mattia Rainoldi

Bournemouth University , Bournemouth, United Kingdom

The new wave of technological advancements is fundamentally transforming companies, industry and society as a whole. Over the course of the past decades, technological innovations have been a major driver of change and progress and have transformed social structures, industrial relations and the global economy (Kubicek et al. 2014; Schwab 2017). In 1930, the economist John Mynard Keynes (1930) forecasted a world in which, a century later, leisure would be the centre of people's daily life, and work would be limited to a three- hour shift and a fifteen-hour working week. Technical improvements and inventions were predicted to drive this change. Today, we are at the beginning of a revolution that promises to transform industries, businesses and society in so many ways as never before in human history (Schwab 2017). As the modern world increasingly move into the digital realm, technology creates unprecedented opportunities, removes boundaries and barriers, accelerates innovations, disrupts old systems and hierarchies (Brynjolfsson and McAfee 2014; Lechman 2018). Indeed, mechanical, electro-mechanical and computing technologies have triggered radical changes, which have revolutionised the means of production, transportation, service delivery and communication (Brynjolfsson and McAfee 2014; Hoonakker and Korunka 2014; Mullins 2016). Digital technology is giving rise to new practices of management, new business models, new types of jobs and new ways of experiencing leisure (Ludwig et al. 2016; Schwab 2017; Birkinshaw 2018), which are contributing in reshaping how people structure and organise their life (Colbert et al. 2016; Brougham and Haar 2017; Lechman 2018). We live in a technology-rich world in which hardware, software, networks, systems and applications (Frey and Osborne 2017) are progressively becoming an integral part of nearly every aspect of everyday life (Sayah 2013; Bødker 2016; Chayko 2017).

The emergence, development and adoption of new digital technology is nurturing a paradigm shift in how the borders that have traditionally separated professional and leisure contexts are set (Benckendorff et al. 2014; Ludwig et al. 2016; Duerden et al. 2017). Digital technology has enabled people to perform work independently from time and location (Boswell et al. 2016; Dickinson et al. 2016; Ladkin et al. 2016; Ludwig et al. 2016) challenging the binary divide of between work and leisure (Paris et al. 2015; Silk et al. 2016). Emerging new ways of working provide workers greater autonomy in arranging and scheduling work and individual task and contribute in liberating work from the boundaries of the office and set working hours (Middleton

et al. 2014; Fleck et al. 2015; Milligan 2016; van den Hooff 2017). Work can now be conducted at any time and from different locations including the workplace, home, while commuting and during holidays (Demerouti et al. 2014; Boswell et al. 2016; Kossek 2016). While digital technology promises to enhance people's life by creating greater flexibility, freedom and opportunities for leisure (Brynjolfsson and McAfee 2014; Chayko 2017), it also facilitates intrusions into times dedicated to leisure, such as weekends and holidays (Duxbury et al. 2014; Dickinson et al. 2016; Kossek 2016). Thus, in the undergoing revolution digital technology has become a moderator and a facilitator of seamful and dynamic transitions between professional and private roles (Bødker 2016).

Drawing upon Border Theory (Clark 2000) this study explores the conceptual foundations of the ongoing shift and to address the missing understanding of the relationship between work and leisure in a technology-mediated environment. Border Theory (Clark 2000), offers a theoretical lens to explore the role of new digital technologies and their implications for work-leisure border management. This is particularly relevant in an environment where digital technologies enable rapid transitions between work and private life roles (Ashforth et al. 2000) not only in the workplace and at home but also during times generally devoted to personal endeavours, such as holidays (Middleton et al. 2014). Border Theory is based on the assumption that physical, temporal and psychological borders separate work and life domains (Clark 2000). Borders serve to determine the roles that an individual hold in the different domains and define which behavioural and cognitive patterns take place. However, borders can be crossed and blended, depending on which degree of work-life separation or integration leads to the individual's desired sense of balance. Thus, Border Theory offers a theoretical lens for investigating the mechanisms through which borders between working and private life spaces are established and crossed in the attempt to attain a satisfying balance (Clark 2000). Recognising technology as a driver of change, this study thus addresses the research problem of generating a holistic understanding of the role that technology plays in the future of work and leisure and on the borders that separate them. Towards this aim this study final objective is to develop a conceptual framework describing the impact of digital technology on the future relationship between work and leisure.

Keywords

Digital Technology, New Ways of Working, Leisure, Border Theory.

12.04

TRAVEL BLOGGERS AS NEW WORKERS WITHIN A DIGITAL AGE.

Nina Willment

Royal Holloway University of London, London, United Kingdom

The proliferation of digital technologies over the last decade or so, has resulted in activities traditionally positioned as leisure or 'non-work' being reconceptualised as holding value-generating functions within circuits of contemporary capitalism (Duffy, 2017). Tapscott and Williams (2006) argue that cultural values such as participation, creativity and collectivism are now informing and underpinning the new business models of the digital economy. Consequently, labour occurring as a result of new digital technologies, such as the creation of user-generated content, is forcing us to shift our conceptions of what constitutes as 'work' and who constitutes as 'workers' within a digital age.

Travel bloggers have emerged as one group of individuals who could be understood as new 'hybrid' labourers. As a direct result of their inexorable usage of digital technologies, travel bloggers work and non-work spaces, times and identities are becoming increasingly hybridised and blurred across the physical and virtual world. Traditionally, travel blogging may have been classified as an activity of 'free labour' within the social fabric of the Internet. Travel bloggers would volunteer their time and utilise digital technologies solely in order to create and maintain the virtual spaces of their blogs (Terranova, 2004:p.73). However, increasingly travel bloggers are harnessing their digital technologies and capabilities to reconstitute and commodify the creative process of travel blogging. Travel blogging, which may have previously been situated outside of the social, temporal and economic boundaries of work, is therefore being increasingly reconceptualised and understood as a form of 'work'.

The permeability between the boundaries of work and non-work that new mobile technologies facilitate is leading to workers facing intensified demands on their time and attention (Duffy and Schwartz, 2017). Hence, digital technologies and their networked connections are not only changing what and who we characterise as work and workers but also the spatial and temporal boundaries of the workplace. Digital technologies and their associated untethering of work from distinctive workspaces and times are facilitating the creation of multi-local and pluralised workplaces, where work can emerge from any space or time. For travel bloggers, this increasingly means liminal spaces or stereotypical spaces of leisure, such as hotel rooms or cafes, are now emerging as spaces of multi-location work. Moreover, digital technologies are also resulting in creative workers having a technologically-mediated presence which is constantly 'on' and available. For travel bloggers as 'hybrid' workers, this omnipresence consequently poses questions around where the working body, does in fact, become (in)distinguishable from the travelling body or the relaxing body.

This paper therefore seeks to use qualitative research undertaken with travel bloggers to begin to unpack the cultural economy of these 'hybrid'

workers, in order to explore the changing conceptualisation and organisation of work as a result of digital technologies. The paper is based on interview data from a study of 21 British travel bloggers from across the United Kingdom. Participants represented a range of ages, genders and career stages: from those who see travel blogging as a form of 'non-work' or hobby to individuals who position travel blogging explicitly as their main form of economic renumeration or 'work'. In particular, the paper will use the figure of the travel blogger to attempt to explain how digital technologies are transforming who we may conceptualise as a worker in the digital age. The paper will also use an empirical focus on travel bloggers' real workspaces, within which their virtual work is done, to begin to attend to the potentially problematic intersection of the fleshy and digital geographies of work and the workers body that digital technologies facilitate.

Keywords

creative labour, blogging, digital work

12.05

VIRTUAL WORK AND WORK-LIFE BOUNDARIES: EXPLORING THE CULTURAL CONTEXT OF THE VIRTUAL UNIVERSITY OF PAKISTAN

Sarah Salahuddin, Gillian Symon

Royal Holloway, University of London, Egham, United Kingdom

Cultural values shape goals, practices, and norms at the individual, group, organisational and national level (Schwartz, 2006). Consequently, some consideration has been given to the cultural shaping of innovation, deployment, and use of Information and Communications Technology (ICT) across different developed countries (Schiller and Cui, 2010). It has been suggested that ICT adoption, use, and its consequences may be distinctive in a specific country relative to its particular culture (Veiga et al., 2001; Bankole & Bankole, 2017).

The focus of this paper is on the ways in which cultural values may shape the relationship between ICT use and work-life boundaries. ICTs may be viewed as resources that can enhance and maintain cultural attributes in organisations (Westrup et al., 2018). This implies that cultural attributes and ICTs impact the prevalent societal and organisational discourses on work-life including assumptions of how workers enact their work-life boundaries within them specifically. Researchers are increasingly seeking to understand the consequences of ICT for the organisation of work and its impact on the work life of employees, specifically the dynamics of establishing, controlling and managing satisfactory boundaries between work and non-work (Mellner, 2016; Piszcek, 2017). There is also now an increasing body of work that is specifically looking at the interaction of technologies with organisational culture and employee work-life (Ferguson et al., 2016, Gadeyne et al., 2018). This paper focuses on identifying any particularities of cultural practices that impact the outcomes of ICT adoption for work-boundary management in a virtual working environment, specifically in Pakistan. Research on technologies and work-life boundaries has highlighted inconsistencies in findings across studies, making it difficult to draw any conclusions concerning cross-cultural differences at the national level (Masuda, 2018, p. 89). Western ideals of freedom and Western concepts such as ICT-driven permeable boundaries may not be uniformly applicable in other cultures (Schoemaker, 2016, pp. 35-39). For developing economies, digital technologies are described as having the prospective advantage of providing development and learning opportunities to the population and promoting inclusiveness and empowerment beyond established norms (Sen 2010). However, in Pakistan, culturally and socially, the environment is noticeably segregated by gender. This segregation is apparent at work and in homes with 'understood' norms of behaviour for both men and women. These norms are reinforced through the arrangement of physical, personal, work and social spaces, socialisation, and normalization protocols and interaction. Our question is whether using digital technologies can overcome these gendered norms of behaviour.

This case study is part of a larger study focusing on the work-life boundary management of academics in Pakistan, in particular, those working in a higher education institute (HEI) using a 'Virtual University Model'. All academic activities are designed primarily around an online Learning Management System and student-teachers are physically displaced. The university has physical campuses around the country, both run by the university and privately owned and operated for the ease of students to have access to ICT, and for the conduct of examinations and vivas. The workplace is structured like a 'physical' university where mandatory attendance and fixed desks are assigned to faculty members. Faculty members work from campus within designated hours and are often instructed verbally to facilitate students by being available from home on off days or other times. However, even within this 'adaptable' work environment, the reinforcement of cultural boundaries for both male and female academics by management and indeed by individuals working within the environment has been observed.

Initially using observation and organisational document analysis (Bowen, 2009), patterns and themes in the arrangement of work and delineation of academic work responsibilities are identified. These patterns of behaviour are coded and cross-checked through observation which gives the opportunity to examine the performative enactments of the organisational and technological discourse and also provide insights on the influences on individual behaviours of academics within the specific work environment. Additionally, in-depth, semi-structured interviews with academics enable

understanding of how those behaviours relate to academics' individual cognisance of their work-life boundaries.

The primary contribution of this particular paper is to highlight that, even within digital work, the organisation of tasks and responsibilities can enforce traditional boundaries within a particular cultural context. The theoretical proposition of free-form work, flexibility and boundary permeability in ICT enabled work may not hold true within environments that reiterate social conventions. Assumptions of traditional work and non-work roles and boundaries may be challenged by changing socio-economic conditions, with more working women, dual-earner couples, and changes in family structures (joint, nucleus and single-parent). However, there is inadequate research to assume any impact on work and non-work boundary cognisance and management in Pakistan under these conditions. This paper and consequent work will attempt to understand boundary management for employees staying within the particular context of technological and cultural discourse of the organisation and demonstrate how workers understand and enact their work-life boundaries within particular socio-cultural parameters.

Keywords

Work-Life Boundaries, ICT, Culture

12.06

THEORIZING AND INVESTIGATING PLAYBOUR AS DIGITAL WORK

Sirpa Leppänen, Mikko Jakonen

University of Jyväskylä, Jyväskylä, Finland

The focus in our talk is transgressive digital work – playbour (Kücklich 2005). From the perspectives of traditional, Taylorist and Fordist understandings of work, playbour could be argued to represent the anti-thesis of work: it is not work, because work is something done silently, seriously and efficiently (Marazzi 2008; Virno 2004).

In this talk, we highlight a different understanding of playbour. We argue that, thanks to its commons-based and networked creative sharing culture, and start-up and peer-production mentality (Eran & Fuchs 2015; Jakonen et al. 2017), it is a symptomatic example of work in globalized, technologized and post-industrial knowledge and attention economies, the possibilities it offers for entrepreneurial employment as well as the vulnerabilities and risks it entails.

Drawing on a transdisciplinary framework, and with the help of telling cases of Finland-based playbour, we will, firstly, spell out a critical theoretical understanding of playbour and, secondly, demonstrate how playbour and the generation of value crucially builds and thrives on semiotic and interactional expertise (Häkkinen & Leppänen 2014).

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Keywords

playbour, digital work, theory, practice, transdiciplinarity

12.07

BLURRING BOUNDARIES OF WORK IN A NO MANAGEMENT ORGANIZATION

Mira Karjalainen

University of Helsinki, Helsinki, Finland

The purpose of the paper is to scrutinize the blurring boundaries of work in a consultancy firm that celebrates being a no management organization. The paper looks at the ways of organizing, in order to understand better social and human sustainability within and around work organizations, especially regarding HRM practices and organization of work. What are the organizational factors that enable, or hinder, the ability to cope at work in the intensified 24/7-economy? The theoretical background for this paper consists of discussions on both neoliberal society (Harvey 2005), neo-individualism (Elliot & Lemert 2006), and ideal worker (Whyte 1956; Kanter 1977; Acker 1990). In the research literature the ideal worker is seen as a person who always puts work first, does not have responsibilities outside work or at least does not let them interfere with work. Ideal worker does not fully disclose oneself at work, but keeps work role and other roles in life (family, friend, activist or such) separate from each other. The new paradigm seems to view these characteristics differently, suggesting that the contemporary organizational life may encourage the blurring of boundaries between professional and personal selves, perhaps encouraging to dedicate the whole personality for business (Dumas and Sanchez-Burks, 2015). How does the ideal worker form in a no management organization?

The approach in this paper is qualitative, based on interviews, diaries and ethnographic data gathered in a modern professional consultancy firm that employs knowledge work professionals. The data is analysed by using the new rhetoric, a brand of rhetoric analysis, which allows analysing various kinds of communicative situations from public talks to one's private contemplation.

The paper arises from the Strategic Research Council funded project Social and Economic Sustainability of Future Working Life, which explores factors that support and, on the other hand, restrict the opportunities of different people and diverse groups in working life. As the work culture shows signs of further intensifying, it is crucial to develop better understanding of the blurring boundaries of knowledge work. Finding novel ways of managing blurred boundaries of work is becoming a key factor for sustainable working life in knowledge sectors.

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Keywords

BLURRING BOUNDARIES OF WORK, NO MANAGEMENT, IDEAL WORKER

12.08

DIGITIZATION OF SOCIAL WORK WITH CHILDREN AND YOUTH IN POSITIONS AT RISK – NEW CHALLENGES FOR THE SOCIAL WORKER

Michael Christensen

Professionshøjskolen Absalon, Roskilde, Denmark

Historically social work has involved comprehensive face-to-face interaction with the citizen at risk. This face-to-face relation has been one of the core

competences for the reflexive social worker. Traditionally, social work was (and to a large extend still is) carried out in specific social and physical settings such as the municipality, the care institution or other settings in which the citizen at risk is located. Training in order to conduct social work and to create trustful and genuine relations at the different locations has therefore been a central part of the curriculum of social work schools. However, the increasing application of digital communication devices in social work alters the conditions for social work in a fundamental way.

The paper explores how these new challenges affect the practice of social work and the paper look at key issues of an increasingly digitized social work space. The paper is based on an ongoing research project entitled "The digital competent social worker" which is an explorative study of how social workers in Denmark work with new forms of digital communication and documentation systems. The empirical material in the article combines a comprehensive review of existing research literature with interviews and observational studies of social workers practicing digital social work with young people in positions at risk.
Furthermore the article draws on interviews with the young people in positions at risk, who are communicating with social workers through digital platforms. The argument of the paper is that new forms of digital communication systems certainly change the conditions for face-to-face relations, and raise issues such as digital competences in the social work education, legal issues of informed consent and of due process as well as ethical matters related to the closure of a snap-chat/SMS dialogue. On the other hand, the paper concludes that the digitization of social work creates a multitude of new spaces in which social work can take place. The paper thus presents key findings from the study and suggests new vistas for social work research.

Keywords

New spaces of digital communication, social worker competence, ethics in digital communication

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12.09

THE EFFECTS OF COMPRESSED MODERNITY ON THE WORK OF HEALTH CARE AND SOCIAL SERVICES PROFESSIONALS

Piia Silvennoinen, Ossi Salin

Laurea UAS, Vantaa, Finland

The development of technology is changing the current working life. It is especially digital and virtual applications that have been changing work and continue to do that. As one of the consequences of the development, an increasing number of both health care services and social services have become digitalized and are available only through digital and virtual interfaces. At the same time, the increasing digitalization and virtualization of society makes the living more complicated, challenging and difficult to comprehend. (Harrikari & Rauhala 2018.) In the presentation, we will illustrate how the professionals of health care and social services experience digitalization and how it has altered their work. The analysis portrays the key tendencies of compressed modernity of the research data. The compressed modernity (Harrikari & Rauhala 2018) is a development of society where digitalization invades every sphere of life altering the ways in which time, space, local and global are experienced and understood. For example, the notions of place and space are to be understood in compressed modernity as virtual, digitalized, polycentric, hybridized, compressed and 'glocal'. In the same manner, economy and work stand for digital capitalism, offshoring, flexible globalizing information work and services. (Harrikari & Rauhala 2018, 154-157.) This development also influences the ways in which we understand ourselves as embodied beings. Digitalization can be understood as an embodiment process in which digitalization permanently changes the ways in which people interact with each other. The data consists of learning diaries (N=18) of the health care and social services professionals who participated in a course named "Online counselling" during their Master's Degree studies in the autumn of 2018.

Keywords

Compressed modernity, health care and social services professionals, digitalization

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12.10

VIRTUAL ASSISTANTS, DEMANDING CLIENTS: SHIFTING AND BLURRING BOUNDARIES BETWEEN PAID AND UNPAID WORK IN THE VIRTUAL SERVICE INDUSTRY

Johanna Hofbauer[1], **Dominik Klaus**[2]

[1]WU Vienna, Vienna, Austria. [2]University of Vienna, Vienna, Austria

In our paper, we intend to address the blurring boundaries between paid and unpaid work in the field of online freelancing, using the examples of virtual assistants and virtual receptionists.

Virtual assistance is an emerging field of gendered work, enabled by new mobile technologies and the emerging platform economy. Self-employed freelancers take on office management tasks from individual professionals, small firms or larger companies. Jobs may include regular service tasks, but the requirements on task accomplishment differ, one of the reasons for this being that flexibility and availability claims increase. Maintaining a high quality of service essentially demands communication and social skills that compensate for the lack of face-to-face interaction. In order to ensure a longer-term engagement, virtual assistants need to put considerable effort into establishing relations of trust and deliver services with an appearance of personal touch; this effort is likely to remain unpaid work, however. The same applies to the work of virtual receptionists. Virtual receptionists manage customer queries of all sorts for hotels, medical cabinets or similar professionals. They carry out typical frontline work tasks. Skilled service interaction, however, takes place at the intersection of an anonymous service requester and an equally anonymous customer. Erving Goffman once characterized this type of frontline work as representing the “company’s face to the world”, a task that seems even more challenging when impression has to be managed in a virtual environment of service provision, where rating systems and algorithmic management rigidly control performance and clients.

In the paper, we argue that the challenges of virtual assistance and virtual reception jobs are easily underrated, not only by platforms and clients, but also by the freelancing workers. Online freelancers expect more autonomy from a remote, self-employed job. The opportunity to work from home promises easier reconciliation with other responsibilities, e.g. care duties or educational activities. We assume, however, that the potential advantages of these virtual jobs hardly make up for the range of skills and efforts to be put into the job, not to mention job risks due to irregular or precarious employment.

Contractualization of services and the practice of all-inclusive contracts tend to let service requesters take the service for granted and ignore the multi-faceted investments made by virtual service workers to get the job done at “complete customer satisfaction”. This involves, among others, to convey a feeling of “personal” assistance while knowing hardly more than the clients’ names and a few business facts.

The paper aims at a contribution to the debate around blurring boundaries between work & non-work, paid & unpaid work in platform economy. It will center on questions such as

- How is virtual service provision valued? What are criteria of performance assessments?

- How do virtual assistants and receptionists cope with digitally mediated working requirements and control?

- How do they draw boundaries between work and non-work, given the high requirements on availability by demanding clients?

- How does boundary management interplay with notions of identity and work orientation?

Keywords

blurring boundaries, valuation of work, virtual assistants

13.01

EFFECTS OF THE DIGITALISATION ON WORK TOOLS AND TASKS: AN ANALYSIS ON THE QUESTION OF THE DEVELOPEMENT OF DIGITALISATION IN GERMAN COMPANIES.

Anna Cristin Lewalder

Federal Institute for Vocational Education and Training, Bonn, Germany

Within the framework of the project "Polarisation of activities in the economy 4.0", a web survey was realized with the aim to trace the development of digitalisation and automation of work tools in companies and to obtain judgements of the digitalisation trend, future developments, obstacles and accelerating factors of digitalisation as well as the development of the future demand for skilled workers. The central question here was to what extent the typical work equipment in a company will change in the future as a result of digitalisation and to what extent work processes will be automated. To answer this question, almost 450 company representatives were interviewed and their judgements evaluated. Here it can be seen that from the point of view of company representatives in general there is a trend towards an increase in the automation of work equipment and activities, but this increase is moderate. Manual labour remains in the foreground, but is increasingly supported technically.

In this context, the web survey was to focus primarily on the work tools used in companies and the activities carried out with them, as well as on the extent to which work tools and equipment will become more digital in the future and the activities carried out with them will be automated. Based on the taxonomy of work tools of the Federal Institute for Vocational Education and Training (BIBB) (cf. Güntürk-Kuhl et.al., 2017), the Web Survey was conducted with company representatives at middle management level (foremen, department heads, etc.) on the status of the digitalisation of work tools in their companies and their expected development. The aim of this survey was to obtain a well-founded assessment of the current "state of digitalisation" and the potential development of the work tools customary in the sector and to link the results with other BIBB studies and surveys (e.g. QP degree of digitisation, cf. Lewalder et al., 2018, p.22). In addition, assessments of the digitalisation trend, future developments, obstacles and accelerating factors of digitalisation should be obtained and the development of future skilled labour requirements evaluated. Based on the results, an index was formed for the larger project context of the project "Polarization of activities in the economy 4.0", which should provide an indication for the further development of the industry with regard to digitization and the substitutability of employees (cf. Lewalder et al., 2018, p.24).

The top 10 work equipment from the respective sectors were first identified with the aid of the BIBB work tool taxonomy (cf. Güntürk-Kuhl et al., 2017). For this purpose, an evaluation of BIBB's job advertisement database was used to identify the work tools in the job advertisements. These were then evaluated according to frequency and sector.

The work tools identified in this way were presented to the interviewees in the online questionnaire on an industry-specific basis.

From the answers of the interviewees, an index was generated that shows a value for the state of automation in 2018 and a value for the expected state of automation in 2028 (cf. Lewalder et al., 2018, p.24). These values lie between 0 (low automation) and 1 (high automation).

In all evaluable industries there is an assessment towards a stronger automation in the future, but the values are closer to point 0 "low automation" than to point 1 "high automation". It can therefore be said that according to the responses, although automation will increase compared to 2018, this will happen to an extent that still requires manual human labor. Moreover, this estimated increase in automation is not the same in every industry.

Looking at the answers in relation to the activities performed, it can be seen that a significant increase in automation is assumed for all the activities recorded. The assessment for the activity "Controlling machinery and equipment" is particularly striking. Here it is stated that this activity is already much more automated in 2018 than the other activities and the increase in automation is also much higher than the increase in the other activities.

If one evaluates the index in relation to the individual work equipment categories (cf. Güntürk-Kuhl et. al. 2017), the picture emerges here as well of increasing automation, which varies in strength depending on the work equipment.

For the interviewees, however, digitalisation is also having an effect on other levels of the company, as shown by the increased importance of cyber security and data protection, for example. According to the respondents, digitization and automation do not only have an effect on work processes, equipment and activities, but also on many areas of business activity.

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Keywords

tools digitalisation automation

13.02

DOES COMPANY-DRIVEN VOCATIONAL EDUCATION PROVIDE ANSWERS TO EDUCATIONAL NEEDS CAUSED BY A RAPID TECHNOLOGICAL DEVELOPMENT? CASE STUDY: KONE ELEVATORS LTD

Kaisa Hytönen, Anne Kovalainen

University of Turku, Turku, Finland

Introduction

Rapid technological development transforms the nature of work and working life, challenging workers, who face novel professional complexities and entirely new skill requirements, as well as educational systems and workplaces, which need to rethink and transform the ways in which competencies are developed (Davies et al.,2011; Palonen et al.,2014; Seppänen et al.,2018). Recent educational research, working life research and business economics research emphasise that the need for flexible education and training will increase in the future and, in this regard, there is a need to strengthen the interfaces between education and working life at all levels of education (Johnson et al.,2016; Jónasson,2016; Ohlsson,2011). In our earlier study, we found that an educational design called a company-driven vocational education and training can provide flexible ways of training future workers (Authors). It supported both learning of field-specific skills and general working life capabilities and created a strong basis for students' further professional learning and career advancement. In this study, we examine what elements of the company-driven vocational education and training are profitable for the broader applicability of the educational design.

Method

A case study was conducted within the framework of KONE Elevators Ltd that is a global leader in the elevator and escalator industry. KONE has its own Industrial School that is a specialized vocational institute under the supervision of the Finnish National Agency for Education. The Industrial School provides a two-year training program in elevator engineering that gives a vocational qualification to elevator engineers. The elevator engineering training programme includes theoretical studies (30%) and practical training (70%) that takes place in the building sites of KONE. Each student is assigned a mentor.

The data were collected through interviewing 12 participants. Ten people had participated in the elevator engineering training programme at various times and continued their working careers with KONE. They had worked as elevator engineers or maintenance engineers, and later progressed to other jobs in the company. In addition, one person worked in a managerial position at KONE Industrial School and one person worked in human resources management at KONE Elevators Ltd. The interviews were analysed according to qualitative content analysis.

Findings

The result show that there are three kinds of elements of the company-driven vocational education that are central to the broader applicability of the educational design. They are related to the content, structure and flexibility of the educational design. The content elements refer to the contents and practices of the training programme. They are in close interconnection to the business operations of the company, and therefore, the content and key objectives of education can be developed without delay as new needs arise, such as those that result from developments in technology. The interconnection is constructed also by guidance practices as teachers are experts in the field and mentoring is provided by more experienced employees. Learning takes place in real working environments.

Structural elements are related to the fact that the training guarantees jobs in the company for the graduates, and produces skills and competencies that enable them to find work outside the company, as well as to the modular structure of the training programme. KONE aims to provide permanent jobs for graduates. Students are engaged in the company even before the programme begins, because the anticipated future workforce needs determine the number of study places. Students' careers in the company begin already at the start of the training programme, e.g. they are paid a

student salary and covered by the company's occupational healthcare policy. The modular structure of the studies combines theoretical studies and practical training effectively. Theoretical studies and on-the-job training are in dialogue with each other, and alternate in close cycles. During the on-the-job-training periods taking place in the company's own facilities students get to apply the theoretical knowledge, but also to become part of the operating culture of the company.

Flexibility elements mean that the training programme can quickly translate the changes and developments taking place in business activities in to teaching contents and practices. This is due to the strong connection between the training and the company, which enables smooth flow of information as well as rapid and timely responses to the new competence needs.

Significance of the research

This study shows that the company-driven vocational education and training have many strengths and benefits. These are related especially to the close connection between the company and education, company's commitment to students and its ability to provide students with versatile and transferable competencies. In the future, it will be important to study more closely how the successful elements that are related to the content, structure and flexibility of the company-driven vocational education can be applied in other fields and areas of education. The results of this study can be utilised in the current reform of Finnish vocational upper secondary education.

Keywords

Company-driven vocational education, New educational needs, Interfaces of education and working life

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13.03

"THE ROLE OF VOCATIONAL TRAINING FOR THE EMPLOYABILITY OF MIDDLE-QUALIFIED LABOUR FORCE AT THE DIGITALISATION DRIVEN LABOUR MARKET IN GERMANY" (WORKING TITLE)

Sabine Schindler

University of Koblenz-Landau, Landau, Germany

Along with demographic change and skills shortages, digitalisation poses a major challenge for labour markets and changes requirements for the working population. By overthrowing job profiles and branch structures, life course adjustments, e.g. in terms of changing the educational level become necessary. Especially vocational training becomes increasingly important for the labour force – to preserve their human capital and ensure their employability.

Employability relates to several determinants, e.g. educational level, branch, region, past and current occupation, … and of course vocational training during the whole working life. Vocational training in Germany is organised in several forms, partly supported by the government aiming at enabling their labour force to participate in the labour market. While manifold opportunities for continuous education are available, life course sensitive governmental policies focusing on digitalisation driven changes for middle-qualified workers rarely exist. Therefore, this research regards Germany as a conservative welfare state, where the educational sector is highly regulated – except from the market of vocational training, which is still treated as historically grown private sector.

By applying the human capital theory complemented by the polarisation approach, the German labour market shows increasing polarisation tendencies along qualification levels. On the one hand it is not profitable to automate low-qualified routine jobs. On the other hand, high-qualified tasks do not contain enough routines to digitalise the relevant jobs. Major effects of digitalisation driven change are therefore assumed to strike the sector of middle-qualified employment. This sector's relevance for the economy becomes obvious by using data from the Federal Statistical Office: in 2017, 47.5% of the German labour force had a middle qualification level, meaning an apprenticeship (specialty in Germany: dual system of vocational training preparing for a professional job).

As the theoretical consideration reflect, this dissertation aims to contribute to the general research question: "What is the significance of vocational training for the employability of the middle-qualified working population in the German conservative welfare context?" By describing patterns in vocational training and the influence of digitalisation on the German labour market, the prospects for employability especially for the middle-qualified level will be discussed, descriptive data analysis presented (e.g. basing on OECD, Eurostat, Federal Statistical Office, Federal Ministry of Education and Research, Federal Institute for Vocational Education and Training (BIBB), Institute for Employment Research (IAB)) and policy recommendations deduced.

The results gained from researching this question can be transferred to other countries. As the influence of digitalisation driven change becomes visible in all industrialised countries, all their labour conditions change as well. Basing on the German findings, linked labour markets and educational policies (like in other EU countries) will have to reorganize likewise.

Keywords

vocational training, digitalisation, employability

13.04

DEVELOPMENT OF CHANGE MANAGEMENT SKILLS AND SERIOUS GAMES

Manon Keusch-Bessard[1], Tamari Gamkrelidze[2,3], Marc-Eric Bobillier Chaumon[4], Bruno Cuvillier[1]

[1]GRePS Laboratory, Lumière Lyon 2 University, Lyon, France. [2]CRTD Laboratory, CNAM, Paris, France. [3]Department SENSE, Orange, Paris, France. [4]CRTD Laboratory, CNAM - Work Psychology, Paris, France

In the current context of increasingly frequent transformations, it is necessary to study the resources of professionals which are available to them to manage these transformations. New technologies are a modern « fun » way to help professionals by developing resources and skills, and training them in this situation.

SIM2B (SIMulate To Be) is a research project financed by the French Unique Inter-ministerial Funds in which four partners are working together (GRePS and LIRIS, research laboratories ; SBT Human(s) Matter, a serious game company ; and Artefacts Studio, a video game company) to create an innovative serious game focused on change management in professional environments, which includes artificial intelligence (AI). In order to favour professional skill development in a transformation context, the design of this serious game needs to address an important difficulty : to find the right balance between the realism of the game, its fun aspect and the educational objectives (Liai, Bobillier Chaumon, & Cuvillier, 2018).
In the game, the professional plays the role of a consultant. In the context of a business merger, the player has to ensure that it will be accepted. Depending on various pre-established scenarios, the player will meet non-player characters (NPCs) such as colleagues, employees, managers, directors, etc, and interact, cooperate with them and take decisions which will impact NPCs and the situation. The game is a way for professionals to experiment with different strategies in a transformation context and to observe and examine the impact on the situation and on NPCs. To produce a retrospective analysis on the player, the NPCs need to have credible emotional and social behaviours in their interaction with the player. This general process involves an innovative design of realistic behaviours, emotions and profiles of NPCs.

We used retrospective simulation of social-emotional activity to access and model real situations of change involving emotions and social behaviours and to guide the creation of the script of the game. The principal objective of this retrospective simulation was to associate different experienced changes at work with emotional and social behaviours (Bobillier Chaumon, Rouat, Laneyrie, & Cuvillier, 2018) which were then used as a basis for designing NPCs and the script of the serious game as most realistic as possible. It is the basis of the artificial intelligence constructed for the serious game.

Moreover, we conduced an experiment on the first version of the serious game in order to measure the quality of the scenarios and the user experience. The methodology deployed was based on a filmed playing of the serious game. During the game, all fifteen participants were simultaneously verbalising their thoughts : problems, difficulties, positive aspects concerning comprehension, vocabulary, NPC behaviours, etc. Forty-eight hours after the experiment, we conduced semi-interviews with every participant to discuss their experience with the serious game. We asked about their feelings, their comprehension and their expectations during the game. We also discussed about what they retained and what they learned thanks to the serious game.

The results of this first experiment highlight problems which allows us to improve the scenarios and the serious game in general. The results also showed that the serious game induced retrospective analysis in the participants around their « real-world » skills and behaviours both personally and professionally.

Based on this experiment, we are currently working on the last two experiments based on the final version of this serious game. We have added to our methodology a specific questionnaire about the usability of the serious game and we have also added questions in our semi-directive interviews about retrospective analysis and skill transferability.

Finally, we consider that an immersive virtual environment, based on the most realistic environment possible, is essential to favour retrospective

analysis of the impact of a strategy on the transformation situation. This process will allow players to develop and learn new professional skills in change management which will be transferred more simply to a real context (Bobillier Chaumon, Rouat, Laneyrie, & Cuvillier, 2018). The serious game could increased perspective and re-evaluation of their own behaviour and their actions in a transformation context (Liai, Bobillier Chaumon, & Cuvillier, 2018).

Our research project contributes to the debate of developing skills in a context of digitalisation and regular transformations. Serious games are a playful way to develop change management skills and, to a lesser degree, digital skills.

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Keywords

simulation ; change ; development of skills

13.05

COMPETENCIES IN DIGITALIZED WORK

Matti Vartiainen

Department of Industrial Engineering, Espoo, Finland

Digitalization of work tools and objects, value adding processes and working environments enables flexible organizing of work in micro- and SME companies, on company campuses, in local regions such as cities and globally in virtual work platforms. Employees increasingly act remotely, are mobile, and work and collaborate from multiple locations and contexts (Andriessen & Vartiainen, 2006; Koroma & Vartiainen, 2017). This presentation concentrates on exploring how the digitalization influences on the needed competencies[1] for the future by changing work processes and contents. My approach is exploratory and descriptive as I look for evidence in secondary material such as literature and white papers in addition to empirical studies to figure out, what kinds of competencies are needed in the future. I will propose a model for analyzing future competency needs in addition to present what these competencies are.

Of the general, global trends, the most immediate material factor affecting people's work demands, activities and resources on the organizational level is the extensive utilization of digitalization and the mobile Internet. Key applications in communications, working platforms and the automation of work processes affect work and leisure and their relationship in many ways. Digital platforms and the transition to online virtual work, the analysis and algorithmization of large bulk data into intelligent cloud services, artificial intelligence (AI), the "Internet of Things" and "mobile Internet", machine learning and robotization are particularly associated with changes in the process, structure and contents of work – and possibly competencies.

It has been claimed that there is no "new" technology as technologies develop continuously. However, the ability to produce, store, process, and transmit digitally coded information has grown exponentially in the last few decades. A decade ago cloud computing, mobile internet, and social media were unknown. In addition, though robotics is not a new phenomenon, it is today much more flexible because of better senses (sensors) and much more smart (software algorithms, processing capacity). In manufacturing, technologies such as 3D printing and additive manufacturing promise turn the world of producing physical objects into a fully-personalized on-demand manufacturing. This development could bring back home offshored work from faraway countries – and at the same time it influences structures of work processes and organizing. With the internet of things emerges an increasingly complete virtual copy of our physical world, which in turn enables new possibilities to collaborate (Pajarinen et al., 2015). The Internet exploits cloud technologies and big data and its analytics, and enables fully digital work. Cloud computing involves the storage of data in networked data centers and its processing and distribution as applications and services for individuals and organizations (Mosco, 2014). ´Big data' refers to the vast amounts of information that is gained, for example, from data transfers on the Internet and end-users' smart devices and their behavior.

Different technologies, digital working platforms and digitalization of work seem to have specific outcomes to work processes, organizational structures and job contents and through them to needed competencies. They can:

- Replace jobs and tasks by removing human labor in work processes, e.g., robotics and 3D printing in replacing work phases in manufacturing processes --> societal outcomes may be unemployment and disassembling competencies.

- Renew jobs and tasks by adding new characteristics to jobs and tasks, e.g., medical diagnosis with the help of AI --> job enrichment, hybrid jobs, partly new competencies.
- Create new jobs and tasks by reallocating jobs, e.g., work in social media, virtual worlds --> virtual economics, taxation, completely new competencies.

In all, digitalization may create new jobs and tasks – or shrink them as in digital microwork platforms. Fully new digital services are created by benefitting cloud technologies and big data analytics. On the other hand, many tasks and jobs seem to disappear and related competencies are not needed anymore. However, as the world is not ready yet, old competencies are transformed into new ones through an evolution not a revolution and needed to solve future challenges.

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[1] 'Competence' refers to those characteristics, knowledge and behaviours a person has and uses, whereas a 'competency' refers to those (s)he needs. Both concepts are used in this article; one to refer 'competence in use', another to 'competency needed'.

Keywords

Competency, digital work, future

13.06

HOW TO DESIGN USEFUL VIRTUAL ENVIRONMENTS – A HUMAN FACTORS APPROACH ILLUSTRATED BY AN OSH TRAINING APPLICATION

Katrin Gomoll[1], Peter Nickel[1], Stephan Huis[2]

[1]Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA), Sankt Augustin, Germany. [2]German Social Accident Insurance Institution for the foodstuffs and catering industry (BGN), Mannheim, Germany

Today's virtual environments (VE) for future work scenarios will be suitable and well received by their users, when results of human factors analysis, design and evaluation drive VE development. Relevant human factors include ergonomics design requirements, human performance efficiency in virtual worlds (which is influenced by task and user characteristics, human sensory and motor physiology, multimodal interaction, and the potential need for new design principles), health and safety issues (e.g. simulation sickness and physiological aftereffects) and the social impact of the technology. Each of these factors present challenges to the effective design of VE and call for systematic approaches. However, guidance on how to best specify, build and implement VEs as a suitable solution for given industrial, commercial, educational or medical problems (i.e. useful VEs) is not available.

Eastgate et al. (2015) evolved a structured approach to VE development (SDVE) by defining, categorizing and interlinking components of VE development and fitting them into a human factors framework for human-system interaction design. The SDVE guides the whole project team along a systematic, iterative development process (goal setting, analysis, design, evaluation) in close alliance with representative users and professionals at all stages of development. The SDVE allows for breaking down and handing over initial objectives for VE development and context of use (i.e. the project goal) into design and programming of VEs. Taking into account task and user requirements in conjunction with technical options and constraints, the SDVE fosters suitability of the VE with respect to intended functionality, usability and the goal-driven efficiency of the VE development process. Further, the SDVE supports VE evaluations (e.g. usability and goal attainment). Notably, the human factors framework does not intend to provide an extra-ordinary user experience aside the intended use of the application by using sophisticated virtual reality (VR) technology but to get human factors and ergonomics requirements into work.

The SDVE will be demonstrated by a current research project on the development of a VR-supported qualification module as part of a training course on risk assessment. Currently, the VR-supported qualification module is under development and will soon be implemented in the training. In the context of the project, the objective is to internalize the risk assessment process (procedural learning), which is therefore the central part of the VE. The task analysis resulted in necessary and possible activities of a trainee for each step in risk assessment. User group analyses (e.g. trainees and trainers) resulted in personas (user group profiles) characterizing user capabilities and limitations. On the base of that, scenarios were specified and storyboards were created (e.g. in terms of goals and constraints). Consequently, training need analysis was linked to the goal of the project (e.g. OSH as organizational goals, risk assessment as strategic objectives, user qualification as specific objectives). Thus, task and user analysis was not affected by VE capabilities but guided by actual user objectives and needs.

The goal of the VE application is vivid throughout the iterative VE development process e.g. whenever discussing the implementation of the scenarios with programmers. Appropriate feedback loops in the SDVE allow VE design refinements and include procedures for formative and summative evaluations. This allows the VE to be designed for the training task (top-down) and supports effectively learning processes. Parts of the development also serve performance requirements (bottom-up) referring to different user groups and their interactions (e.g. trainees, trainers, project managers, software developers) during VE development, VE integration in the training module and use during the training course.

SDVE guided the investigation on the qualification module in accordance with project management and served an appropriate framework for VE development, while covering the stages of instructional design and organizing the research and development process. The application of the SDVE supported the coordination of interwoven processes, i.e. the process of VE development could be informed by the process of risk assessment and by requirements from project goals, tasks and users, and training needs. Training is still the principal purpose and prospective users were taken into account. The SDVE also allowed for guiding software engineers in the VE development so that they take into account the relevant context of use, the purpose of a given VE and characteristics of the intended user population. SDVE also enables and supports VE evaluations in terms of usability of the VE as well as improved learning by the qualification module within the training. The VR application fits into the training course though the seminar required adaptations in line with the SDVE; but not because of VE development affected over and above the aim of the seminar, but rather due to improvements of the learning concepts. The SDVE framework offers a sound basis for planning and implementation of VR in projects on applications including human-system interaction.

Keywords

Structured development, Virtual Environment, Human Factors

13.07

AUTOMATED EXTRACTION, STRUCTURING AND ANALYSIS OF COMPETENCES FROM JOB ADVERTISEMENTS

Philipp Martin

Federal Institute for Vocational Education and Training (BIBB), Bonn, Germany

Project and Goals

The development of automation technology, software and robotics is constantly in progress. In many work processes, the use of digital work equipment supports the employees in the performance of their activities. Due to the increasing share of digital support, the demands placed on workers are also changing. With our research project, we would like make these changed requirements quantifiable. Requirements on the labour market can be well observed through job advertisements. In job advertisements, employers describe the ideal-typical employees for performing the activities in their company. The questions concerning changes in the requirements on the labour market, whether changing competences or new qualification requirements are being asked, have been examined with the help of our database of job advertisements. The data basis consists of job advertisements that have been registered with the Federal Employment Agency. The registration rate in Germany is about 50 percent. Thus, our data covers a large excerpt. For the years, 2011 to 2017, there are more than 3 million job advertisements in our database.

Extraction and Classification

For our analysis, an automated extraction of the competences formulated in job advertisements has been developed. Through a complex supervised learning process, the extraction could be improved over the years. By automating the extraction of competencies from job advertisements, it has become possible in the first place to capture and classify more than 500,000 job advertisements for the year 2017 in one dataset. The following definition of competencies has been fixed for our study: Competences are all physical, psychological and cognitive characteristics as well as work

experience which are expected by the employer from a potential job applicant in order to optimally fulfil the tasks of the advertised position. Our goal is to make the requirements for potential employees systematically visible and to recognize possible changes over time at an early stage.

Findings and Contribution to the Session

The contribution to the stream is on the one hand the description of the computer linguistic extraction procedure and the lessons learned. On the other hand, I will point out what is in the dataset, how it is structured and which variables are contained. In addition to the advertisement text, further variables such as occupation, requirement level, company size and location as well as economic sector are recorded and made available by the Federal Agency.

Further, I am going to follow the question of possibilities and limits in the use of the dataset.

Outlook

In our project we have started with the extraction of work tools and have moved on to the extraction of competences. The quality of the extraction will be further improved and extended to further years. The database is going to be extended to a higher proportion of the labour market and moreover extended to several survey dates within one year. If the exploitation of the extraction has also been automated, analyses of the labour market will be possible in almost real time. If sufficient extraction dates are available, one can begin to observe development trends and, under certain circumstances, forecast their development.

Keywords

digitalisation, Job advertisements, competences

14.01

NEW WAYS OF WORKING INITIATED BY SOFTWARE SUPPORTED COLLABORATION – THREE CASE STUDIES

Thomas Hardwig[1], Stefan Klötzer[1], Marliese Weissmann[2]

[1]Georg-August-University Göttingen, Faculty of Social Sciences – Cooperation office Universities and Trade Unions, Göttingen, Germany. [2]Sociological Research Institute Göttingen, Göttingen, Germany

"Collaboration" is promising a new quality of teamwork and better internal and external relations enabled by internet-based collaboration software. A survey of enterprises who used "enterprise collaboration systems" (Schubert und Williams 2015) uncovers the experimental nature of the use of these systems in most of the enterprises. They discuss a lack of adequate methods and measures to successfully manage the "social content". A review of adoption challenges reveals multifaceted changes needed for a successful use of "collaborative applications": culture of communication, work behaviour and management, work processes, organisational structures, policies and regulations (Greeven and Williams 2017).

We suppose that the huge difficulties with the management of "collaborative applications" can be explained with the difference Andrew McAfee has made between "classic tools" for groupware and knowledge management and the new "collaborative applications" which combine the features of platform technology with social networking. "The appearance of these novel tools is a necessary but not sufficient condition for allowing new modes of interaction, collaboration, and innovation, and for delivering the benefits (...). To make full use of these tools, however, organizations will have to do much more than simply deploy ESSPs [Emergent Social Software Platforms]; they'll also have to put in place environments that encourage and allow people to use ESSPs widely, deeply, and productively." (McAfee 2009, S. 74) Following McAfee, a necessary condition is to break with the tayloristic ideas of "imposed structures and tight control" (McAfee 2009, S. 54).

Purpose

On the background of McAfee's far-reaching assumption, the aim of this contribution is to analyse the new ways of working initiated by the deployment and use of collaborative applications. We want to describe the new forms of organising work, the changes of roles and responsibilities and the emergence of new forms of collaboration. We aim at giving some insights to management efforts and support systems to stabilize the new forms of collaboration. Furthermore, we will explain in which way the deployment of these applications challenges has established work design practice. On this ground, we want to discuss at the end the presented assumption that software supported collaboration depends on a new, non-tayloristic form of organising.

Design / Methodology / Approach

The contribution presents findings from three qualitative case studies of medium-sized enterprises (special machine engineering, IT consulting, software development) with an advanced use of collaborative applications. The enterprises are located in various sites in Germany and abroad. Our research based on a longitudinal mixed method (document analysis, interviews, focus groups, observations, survey) and multi-methods approach. We accompany these enterprises over three years, implementing and testing an integrated "digital workplace"; a digital front-end application which integrates applications for communication and knowledge management.

Findings

The case studies reveal that the main challenge of the adoption and use of collaborative applications is not the command of the technology, but rather the complex change in the ways of working and organising. We find new forms of software-supported collaboration (e.g. communities, wiki-systems), new roles and responsibilities to support the sharing of knowledge, the collaboration in project teams and to develop the quality of internal collaboration further. Also, we can see first steps towards overcoming traditional ways of organising. The results reveal that the scope of the realised change depends on the capability of the work design practitioners to handle the complex change process and to find new ways of organising. The use of enterprise collaboration software tools requires a socio-technical work design concept, although "socio-technical design methods are rarely used" (Baxter und Sommerville 2011, S. 4). In addition, enterprises encounter multifaceted adoption challenges, which derive partly from the specific character of enterprise collaboration systems (Greeven und Williams 2017). The capability of enterprises to meet these challenges and to overcome the barriers and hurdles of traditional management and organising will affect the pace of the transformation. The case studies suggest that the full potential of software supported collaboration can only be realised when traditional conceptions of control are overcome.

Originality / Value

There is a growing range of literature onto adoption challenges of enterprise collaboration systems (Greeven und Williams 2017), but to date we do not know of any similar case studies to the effects of the use of collaborative applications on the forms of organisation. Our case studies differ from most of the small and medium sized enterprises. Surveys shows "that many companies are not aware of the opportunities and benefits associated with digitalization" (Zimmermann 2016, S. 6).

Keywords

Collaborative applications; organisational change; collaborative work

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14.02

LEADERSHIP AND SELF-ORGANIZING CAMPAIGN GROUPS OF VOLUNTEERS IN SOCIAL MEDIA

Heli Inkinen

Åbo Akademi, Turku, Finland

I was asked for a candidate in the archbishops elections in the Evangelic Lutheran Church in Finland in August 2017. After I agreed, a campaign group of volunteers grew quickly in social media, especially in Facebook. The campaign lasted six months and from the beginning, I was extremely interested to observe as a participating observer the organizing and leadership in this mostly virtual campaign body. For a lecturer of organization and leadership it was an incisive opportunity.

My **aim** in this study is to explore how the organizing happened and how the leadership developed during the half years campaign.

As **theoretical** background, I utilize virtual ethnography or netnography (Hine 2000) and transformational leadership (Uusi-Kakkuri 2017) as well as situational leadership (Hersey & Blanchard 1972). Because a majority of the volunteers and the candidate were female, a focus on gender issues is obvious (Butler 20016).

My **method** is to study and analyze the discussion and other material in several closed Facebook groups and in Messenger from the end of August 2017 to 8 February 2018. The method is inductive and qualitative. I have asked the permission of the key persons and the individuals will stay anonymous in this research.

The strength of this study is that my personal experience and participating observations. However, the personality is also a weakness of this study.

In the **analysis**, I will scrutinize the material mainly with the theories of netnography, transformational and situational leadership. I wish to offer a few conclusions to individuals and groups in similar situations.

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Keywords

leadership, self-organizing groups, social media

14.03

COWORKING AND THE ELUSIVE CONCEPT OF COMMUNITY

Steven Sawyer, JP Rancy, Anjelica Torcivia , Alaina Caruso

Syracuse University, Syracuse, USA

We focus on the relationships among community managers, the coworking spaces they lead, and the coworking participants and pursue two contributions. The first contribution is to theorizing coworking spaces as both a locus of work and as a cross-organizational form of localized community. As a locus of work, coworking spaces bring together independent workers, entrepreneurs, small-business, remote workers, and others. Coworking spaces also provide a form of community that helps create a set of professional social relations across participants that reflects more on their choice of location than professional connection. In both cases, the 'community manager,' is charged with supporting the coworkers (through a range of services that varies across spaces) and creating social connections (through a range of professional and social events, attentive social media practices and online engagement).

To pursue this study, we build from and draw on four sources of insight. The first source of insight comes from the detailed, often sociological and econometric, analyses of the changes in labor market structures, disconnect between employers and employees, and the movement towards contingent work (e.g., Kalleberg, 2009; Kalleberg, 2011; Friedman, 2014). A second set of insights comes from the rapidly expanding scholarship focused on gig work – encompassing a range of utopian and dystopian analyses and debates on the size and growth of contingent work (e.g., World Bank, 2018; Graham, Hjorth, and Lehdonvirta, 2017). The third source of insights come from the studies of contingent work, freelancing and gig-working that, together, highlighting how work, labor markets, and employer/employee relations are being mediated by digital platforms and personalized devices that place premiums on workers developing skills and knowledge beyond their profession or trade (e.g., Wajcman, 2017; Ticona, 2015). Together these works paint a picture of the steady movement away from strong and structured labor markets and employer/employee relationships that framed the workforce that began to change in the 1980s (slowly at first, rapidly of late), and the growth of mediated labor interactions

that has moved increasingly online.

The fourth source of insight comes from the recent studies of coworking sites (e.g., Bizzarri, 2014; Merkel, 2015; Morrison, 2019; Potts and Waters-Lynch, 2016; Spinuzzi, 2012). What these studies help make clear is that coworking sites provide novel spaces for interaction, the potential for innovation, and are novel forms of contemporary organizing. These also help to make clear that the business models, services and roles that coworking spaces play are evolving. Part of this evolution, and central to the new organizational form that coworking spaces represent, is that of the community manager.

We build from our strengths in field-based studies, combining interviews, observation, and secondary data collection (from the web). For practical reasons, we chose Boston (USA) as the geographic locus of our coworking space study, with the goal of learning about the ways in which these spaces adapted to survive in this area. We drew on substantial secondary data to identify the co-working spaces and managers to study (e.g., WeWorks focus on office support v. other coworking spaces who focus on women, or artists, or start-ups, or specific neighborhoods).

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Keywords

Coworking, Community, Field study

14.04

WORK WELL-BEING IN THE STARTUP SCENE

Katri Pöllänen[1], Elina Penttinen[1], Raminta Pučėtaitė[2], Marjut Jyrkinen[1]

[1]University of Helsinki, Helsinki, Finland. [2]Kaunas University of Technology, Kaunas, Lithuania

Background

This PhD research addresses work well-being and its possible challenges in the startup scene. The focus is on technology startup companies in Finland. Startups can be defined as young, relatively small private enterprises that are designed to grow fast. Startups offer an interesting new setting to research work well-being –there is a lack of research-based knowledge on the effects of 'startup culture' on employees' health and well-being. With the presence of Internet and mobile devices in everyday lives of people in most western societies and wider, new innovative technology startups are arising. Startups have brought a new type of organizational culture, 'the startup culture', organization hierarchy and leadership style. Startups

generally have a flat hierarchy with direct access to the leaders. I am researching how the 'startup culture' promotes the well-being of workers and possible challenges it brings. I am exploring if the startup scene entails similar kind of workplace violence and violations, such as bullying that has been documented in many sectors of working life. It has been argued that violence at work is gender-based, because there are gender differences in the prevalence of bullying and in the way victims and third parties respond to bullying. Gender-based violence at work has mainly been studied in traditional organizations. I will continue the research on gender-based violence at work in small and innovative organizations with different hierarchies and power structures.

Research questions

The main research question is: "How does the startup culture promote work well-being, and what are the possible challenges?"

The sub-question is: "What kind of gender differences are encountered in the health promoting behaviors and challenges in Startups?"

Methods

The PhD research is an article-based dissertation that includes three articles. The research project uses a mixed-method approach, including qualitative and prospective longitudinal research. First, I am conducting a small organizational ethnography to observe the organizational culture of startups and how it might affect work well-being. For the ethnography, I will work as a volunteer in a Startup for two-four weeks or longer, if needed. Second part of the qualitative data is gathered through semi-structured interviews (N=20) with both employees and managers from several startups around Finland.

A longitudinal prospective study is conducted to quantify health promoting behavior and possible violences in Startups and how these behaviors differ for genders. Based on data from Maria 01, (85 startups as members and 700 individuals (M= 8,24 employees per Startup; City of Helsinki, 2017), I will invite 122 startups, 1005 persons, to participate in the research. A nested sample analysis is used to avoid selection bias and I strive to reach at least 35% response rate from a definite Startup's employees to include the organization in the dataset. The quantitative research results in two articles: one article with a cross-sectional design and a follow-up article, with a longitudinal study design. A questionnaire is designed, based on other validated questionnaires and on factors that come up in the qualitative interviews.

Significance and impact

The research results in theoretical contributions in the areas of leadership, critical management and organization, gender, health and behavioral sciences. The thesis will create a theoretical model that links together organizational culture, work well-being, bullying and gender. Practical implication of this research is to help leaders to more clearly recognize how the extremely engaged working culture of startups might also have negative impacts on work well-being of employees, and to offer suggestions to avoid them.

Keywords

Organizational culture, Startup Scene, Work Well-Being

14.05

ORCHESTRATING INNOVATION IN ORGANIZATION CONTEXT

Hannele Väyrynen

Tampere University, Tampere, Finland

Rapidly changing operation environment challenges organizations and forces them to develop new kinds of problem solving capabilities. In order to stay competitive, there is not only the need to constantly develop products, services and processes, but also to create totally new innovations. This paper aims to elucidate orchestrating innovation in twofold way. First, orchestrating means that an organization need to identify the best possible operation for the innovation process. Furthermore, the innovation process needs to be visible and understood by all the actors in the organization. Second, orchestrating means that there need to be instruments for the actors to innovate and evaluate the innovation as well as innovation process.

The aim of the paper is to introduce one innovation operation tool, a designed Innovator Action Grant Model (IAGM) tool that guides the individual to process innovation challenges. The study elaborates on the relationship between change readiness in general, knowledge management (KM), technology adoption and future awareness in innovation process. Change is understood as development-oriented action, a space of opportunities for the organization and individuals to enable changes with their action, decisions and optimistic attitude. Knowledge is understood as information, data

and competence and based on Alavi and Leidner's definition of "information possessed in the mind of individuals" (2001, p. 109). It is essential to share knowledge (e.g. Colin, 2009; Oudhuis and Tengblad, 2013; van den Heuvel et al., 2015) and transfer knowledge to actionable knowledge (Yoo et al., 2011). Technology is as a tool for operating processes and developing practices, and technology management includes information systems (IS) and data and operational equipment in the organization that produce data with digitalization to be adopted and utilized (e.g. Soo et al.,2002). Moreover, technology is an artefact that challenges the practitioners to maximize the technological possibilities in organization operations by the adoption of IT and data (e.g. Orlikowski, 1992). Future awareness leans on the idea that the future, present situation and past relationships are to be evaluated actively and that evaluation guides action (Alavi & Leidner, 2001; Beaudry & Pinsonneault, 2010). Innovativeness means individual searches for new alternatives or possibilities of knowledge utilization, information technology adoption and furthermore, the search for learning processes between the past, current and forthcoming situations. Innovative thinking by the individual requires process capability, the competence to consider the comprehensive organization processes that support the ability to meet organizational changes.

With four independent empirical research studies was identified the critical elements that support or hinder the innovativeness of the individual in organizations. The results unveiled that new and actionable knowledge (as Yoo et al., 2011) and the clear and visible innovation target were the organization's internal motors while the external co-operation (Lin & Chen, 2015) and overlapping information seemed to promote for innovativeness. Technology was both promotive and restrictive factor for innovativeness. Access to data or information, or competence data bases and familiar information systems were substantial for processing the idea forward (e.g. Darroch, 2005). Future awareness can be promoted only when there is a dialog of the goals, visions or expectations (also Soo et al., 2002). Furthermore, the methods that are utilized in future scanning should be visible for all in the organization instead of the certain profession.

According to the research, there is an organization development resource inside organizations. This paper emphasizes the individual's role in the development process. However, the individual needs support for the innovation process and evaluation. Therefore, to identify and optimize the resources of the organization, the Innovator Action Grant Model (IAGM) was designed. The IAGM guides the individual to evaluate his/her idea as well as the operations of the organization through different organization element lenses: knowledge utilization, technology adoption and future awareness.

The designed IAGM tool is targeted at individuals. The model is a path pattern with visual illustration (modified by the Board of Innovation for new business model identification) (Board of Innovation, 2017) and the focus is more on organization products, services and processes. The aim is guiding how to evaluate the idea of innovation. Furthermore, the model guides the evaluator on whether the idea influences another operation area in the organization. The individual makes a choice between the given alternatives of the model map, either yes or no. The choices of the individual lead to other alternatives and build the evaluation path onwards. The IAGM does not give any fixed right alternatives but illustrates the possible development paths or restrictive elements for the innovation idea that need to be negotiated. Even though the IAGM is intended for the individual level and requires the capability to evaluate and make independent decisions in the innovation process, the organization needs to adopt the model.

Keywords

innovation process, evaluation, innovator

14.06

CAREER PATHS IN TIME AND SPACE

Riikka Harikkala-Laihinen, Niina Nummela, Eriikka Paavilainen-Mäntymäki, Johanna Raitis

University of Turku, Turku, Finland

The current labour market presents itself to jobseekers in various ways in relation to time and space. The physical location of work has decreased its meaning due to the opportunities for virtual work, environmental concerns decreasing business travel and commuting, and the abilities to source the best skills for specific positions and projects globally. From the perspective of time, careers are not limited to a certain company or position, but are more connected to the people and their continuous learning; projects and positions are temporary and after completion, new projects and teams are formed for new purposes.

At the same time, we see the emergence of a growing group of individuals who are only loosely connected to a physical location, namely cosmopolitans. In the recent World Values Survey more than a third of the respondents identified themselves as citizens of the world. Cosmopolitans can be described as nomads in the global job market; they are on a constant move that can help their professional and career development and enable them to find self-fulfilment in their work. For them, the geographical location or the length of the employment are not among the first priorities, but rather the individuals' possibility to make choices, develop skills and capabilities, and decide on their level of commitment to a job. Cosmopolitans share similarities with sojourners and expat-preneurs in that they are not attempting to become fully integrated in their host countries, as they rather see themselves more broadly as citizens of the world with the option of maintaining their home country culture as a knowledge-asset.

For cosmopolitans the recent trends of projectification, short-termism and emphasis on technologies are not negative issues. On the contrary, they likely facilitate the life style cosmopolitans have adopted. Thus, cosmopolitans would probably also welcome hybrid forms of work. This paper looks at cosmopolitans' perspectives related to work and working environments, paying special attention to how cosmopolitans experience time and space with regard to work. In order to illustrate their working life, narrative stories are collected from cosmopolitans. Secondary data in the form of previous studies such as the World Values Survey as well as online blogs written by cosmopolitans are also used.

Keywords

cosmopolitan, citizen of the world, career path

14.07

TECHNOLOGIES, AGENCIES, AND ORGANIZING - UNDERSTANDING THE ROLE OF TECHNOLOGY-RELATED NONHUMAN AGENCY WITHIN THE PROCESS OF ORGANIZING

Tomi Laapotti

University of Jyväskylä, Jyväskylä, Finland

This theoretical presentation is a part of an emerging research project focusing on the many forms of agency enabling organizing. Particularly, the focus is on the role of different technologies in the process of organizing. I review theoretical stances taken and methodologies applied for studying the nonhuman agency of technologies in research literature, including viewpoints of sociomateriality, actor network theory, and the communication as constitutive of organization (CCO) perspective. I will take a more comprehensive look at the concept of nonhuman agency as conceptualized within the Montréal school of the CCO perspective. Finally, I build the argument for studying technologies as agents.

Different kinds of platforms and algorithms can be seen as hybrids of human and computational elements, and as networks of human and nonhuman agents (Ananny & Crawford, 2018). Furthermore, in organizations, networks can carry collective agency including both human and nonhuman agencies (Fleischmann, 2009).Contractor, Monge, and Leonardi (2011) applied social network analysis with nonhuman technological elements as both nodes and connections, and therefore, they included the nonhuman technology as inherent part of the organization. They concluded that including nonhuman elements to the network enhances the understanding of the emergent dynamics of the network. Technology has agency to the point it can draw one's attention from organizational sensemaking needed for managing critical circumstances (Berthod & Müller-Seitz, 2018).) Altogether, organizing is an interplay between the social and the material (Orlikowski, 2007).

My theoretical standing point is the CCO perspective (e.g., Brummans, Cooren, Robichaud, & Taylor, 2014), which views organizations as processes constituted in interactions, or as networks of communication episodes (Blaschke, Schoeneborn, & Seidl, 2012; Putnam & Fairhurst, 2015). Following Latour (2005) and actor network theory, the Montréal school of CCO (see Brummans et al., 2014) conceptualizes agency as the ability to make a difference(Cooren & Fairhurst, 2009). Thus, from the CCO perspective, agency is not limited to something only humans have: different rules, documents, artefacts, worldviews, technologies and institutions can be seen as actors that affect (or do not affect) their environment in the same way as human actors do (Cooren & Fairhurst, 2009). Furthermore, agency is relational: acting happens always in relation to someone or something and as such involves also capacities of these other humans or things (Cooren, 2018). Cooren (2018) argues that, acting is always "acting for, with, and through" someone or something (p. 142). For example, if a person uses some communication technology, it happens for the technology, with the technology, and through the technology. Thus, this technology is a co-actor in the process of using it. Cooren (e.g., 2015) illustrates this by using the metaphor of ventriloquism. Through the metaphor, a nonhuman agent (platform, algorithm) makes a human agent say or do something, or vice versa. In this research project, the focus is not only in different kinds of uses of technologies, but also in the way's technologies are given agency in the talks of people in organizations. In other words, the process of constructing nonhuman agencies in human interactions will be examined.

Previous research (Laapotti, 2018) has suggested that there is a tension between some nonhuman and human agencies that are constructed in interactions. It also seems this tension is evident especially in the discourses tied to accountability or responsibility. From organizing point of view, it is worthwhile to examine how this tension is constructed, maintained, controlled, or exploited. Because different kinds of platforms, algorithms, and (soon) artificial intelligences have, and will have even bigger role in organizing of work, it is important to study the nonhuman agency given to technologies (e.g. how certain technology is talked into being) and how it relates to the discourses on accountability. The possibility of keeping technologies morally responsible has already been argued (Arnold & Pearce, 2016).

This research project will focus on organizational discourses concerning organizing, nonhuman agencies, accountability/ responsibility, and the digital working environment in various organizations. Both observation and interview data will be examined. The aims of the research project are a) to understand the communicative constitution of technology-related nonhuman agencies in organizations, b) to understand the management of the

tension between human and nonhuman agencies from the viewpoints of accountability and leadership, and c) to understand the importance of the technology-related nonhuman agencies within the processes of organizing.

Keywords

Communication, nonhuman agency, organizing

14.08

COGNITIVE ASSISTANCE AYSTEMS AS BOUNDARY OBJECTS. THEORIZING AND ANALYZING DIGITALLY NETWORKED COMMUNICATION PRACTICE IN ORGANIZATIONS

Alinde Keller[1,2], **Evelyn Fischer**[1]

1Fraunhofer Institute for Factory Operation and Automation IFF, Magdeburg, Germany. 2Phillips Universität Marburg, Marburg, Germany

Due to digitalization, industrial companies face rising complexity of cyber-physical systems. As these are associated with complex products, services and processes, they are getting more difficult to understand for the worker at the groundfloor. Obviously, this has to have consequences for communication practices in organizations. The technological innovation within digitalization requires fast and adequate information provision, fast training processes as well as interdivisional cooperation. Thus, digitalization also includes the potential of transforming linear information transfer into information networks and creating organizational added value.

Our contribution grounds in theoretical perspectives connecting to the "boundary object" approach for complex structuring of information. Following Leigh Star and Ruhleder (1996), boundary objects support collective processing of knowledge and distributed problem solving. As 'immutable mobiles' (Latour 1987) they perform translations between individuals, teams, different disciplines or organizations, while maintaining the specificity of the disciplines.

The concept of boundary objects not only offers a theoretical framework but as well a methodological concept to manage complexity by information and communication systems. In fact, cognitive assistance systems applied in industry are digital technologies interlinking different business units to support workers in highly variable and knowledge intensive working situations. Preliminary work realized by Fraunhofer IFF shows the potential of cognitive assistance systems in various fields of application, e.g. in the field of maintenance and manual assembly (Schenk & Berndt 2016, Haase 2017, Keller et al. 2017).

As we can observe, companies and research institutions currently face methodological challenges regarding the design and implementation process of cognitive assistance systems. These challenges emerge in complex interdependencies between humans, organization and technology.
The concept of boundary objects in this sense can contribute, too, for understanding and realizing the design process of digital infrastructures. Leigh Star and Ruhleder (1996) point out that the digitalization of large information spaces has to bridge gaps between different contexts of use, different assumptions and underlying rationalities about digital work and between professional "languages" of designers and users. Since the concept of Leigh Star (Gießmann & Taha 2017) basically is an ex post identification of boundary objects, the design process of cognitive assistance systems as digital boundary objects still remains an open task.

The paper develops a theoretical framework for a design approach of cognitive assistance systems shaping networked communication practice in organizations. Based on an organizational education theory perspective, we focus on technological design as a process of organizational learning (Göhlich et al. 2018). As shown above, this organizational learning process is theorized as boundary work within an actor-network theory framework, a design- and organizational learning perspective. Based on a case study we illustrate characteristics and examples of cognitive assistance systems in the field of maintenance. Cognitive assistance systems classified as 'knowledge systems' are analyzed regarding the aspect, how the technological digitalization system crosses boundaries in and between organizations and how networked communication practices are shaped and emerge in practice. Following Bergemann & Hanke (2017) and Leigh Star & Griesemer (1989), we discuss four different types of boundary objects and categorize the cognitive assistance system accordingly. Empirically analyzing the potential of the explained theoretical framework of (digital) boundary objects, we derive methodological assumptions for a design approach of cognitive assistance systems enhancing organizational meta-reflection.

Keywords

cognitive assistance systems, boundary objects, organizational learning

14.09

LIMINALITY IN THE EMERGING ROLE OF THE BUILDING INFORMATION MODELLING (BIM) COORDINATOR

Hannele Kerosuo[1,2], **Sami Paavola**[1]

[1]University of Helsinki, Helsinki, Finland. [2]Tampere University, Tampere, Finland

Liminality is often understood as a position of ambiguity and uncertainty in organizational literature (Beech 2011). In classical works of anthropology, liminality is connected to people undergoing rites of passage (van Gennep 1960). These people are experiencing liminality as "betwixt and between" the positions assigned by inter-cultural laws, customs, conventions and ceremonies (Turner 1977). Beech (2011) makes a distinction between two understandings of liminality, one related to temporary transitions in identity construction and other "a more longitudinal experience of ambiguity and in-between-ness within a changeful context (p. 288). While studies representing the former understanding examine experiences of classifying people, occupations and hierarchical roles, the latter focus on the liminal experiences of managerial work and consultancy in inter-organizational contexts. Roles are traditionally approached as representatives of institutional order and occupied by individual in the context of social relationships (Merton 1949). They are shaped by the behaviours and interactions of the actors and the expecations that relevant other actors have to their work (Biddle & Thomas 1966). Furthermore, roles can also be studied as enactments of liminality in organizations and work (Swan, Scarbrough & Ziebro 2016). In this paper, our purpose is to study the enactment of liminality in the relationships between the emerging role of building information modelling (BIM) coordinator and the conventional roles of project management in construction industry.

The adoption of large integrated digital systems such as BIM used for designing, delivering and maintaining buildings are currently changing the prevailing roles and their relationships in the construction industry. In empirical studies a wide variety of titles with overlapping job descriptions are given to the new BIM-related jobs. For instance, Barison and Santos (2010) define the tasks of several new BIM management and BIM specialist roles, such as BIM manager, BIM modeler, BIM analyst, BIM application developer and BIM software developer. Even though the titles of the roles vary, the set of responsibilities and tasks incorporated into a title may overlap with other titles in different contexts (Davies, McMeel & Wilkinson 2014).

The construction industry is a complex inter-organizational context for the adoption of technological innovations such as building information modelling (BIM). Its main organizational form consists of temporary projects with several specialists, jobs and employees being engaged in projects. Besides of considering roles constituted in formal procedures, roles can also be understood as emergent and co-produced through interactions within construction industry (Georg &Tryggestad 2009). In several case studies, the emergence and co-production of roles has been examined as a part of the adoption process (Davies & Harty 2013, Vass & Karrbom Gustavsson 2017). Recently, the experiences of liminality of the partnering manager's, building logistic expert's and BIM coordinator's roles have been studied in construction project practices (Karrbom-Gustavsson 2018). These new professional roles are understood as boundary roles whose holders are involved negotiating boundary interphases in construction projects.

The purpose of this study is to enrich the prevailing knowledge of liminality of inter-role relationships in construction project practices. How do practitioners define and interpret the role of a BIM coordinator in its relation to project management roles? What kind of tensions and contradictions emerge in the enactment of the BIM coordinator's role? The data of the study includes 21 interviews with project managers, principal architect designers, BIM experts and BIM coordinators. The focus of the analysis is on the interviewees' accounts of experiences and enactment within and between roles. The tensions and contradictions are examined in the accounts from the perspective of cultural-historical activity theory (Miettinen, Kerosuo, Korpela, Mäki & Paavola 2012). The findings of the study uncover the liminality of the BIM coordinator role in its relationship to the conventional roles of a project manager and a principal designer. Two emerging descriptions of the task-based and expansive roles of a BIM coordinator are also provided in the findings. The findings give rise to discussion about the BIM coordinator role whether liminality will be a more permanent part of the role enactment.

Keywords

Liminality, work roles, BIM coordinator, construction industry

14.10

HUMAN IMPACT ASSESSMENT OF VIDEO-SUPPORTED TEACHING AND LEARNING

Satu Parjanen, Mirva Hyypiä

Lappeenranta-Lahti University of Technology LUT, Lahti, Finland

The European policies recognize the need for the European education system to adapt in order to cope with the changing needs of the labor market. Education organizations need a systematic pedagogical vision for exploiting the new technologies in learning and teaching practices. Integration of high technologies such as multimedia video, audio, animation, and devices, with associated software help to achieve the improvement of rather traditional education. Information and communication technologies (ICT) and social media are highly recognized as tools that are deeply transforming the process of learning. Earlier studies recognize that ICT integration processes are complex and that internal and external factors play an important role. In addition, video technologies have been used in very different ways and for different purposes in education field, serving very different pedagogical perspectives and approaches. The use of video technologies may have various impacts that could be considered positive, negative or neutral. For example, the use of video technologies in teaching and learning affects the role of teachers and calls for digital competence and the development of new pedagogical practices for teachers. The objective of this study is to define the impacts of using the videos in European teaching and learning. The identification of impacts implies discussions on what opportunities and risks are involved in the use of videos and how these different alternatives affect teaching and learning.

Human impact assessment (HuIA) offers a tool to assess the impacts of interactive learning tools. HuIA is a concept describing an integrated process including both Health Impact Assessment (HIA) and Social Impact Assessment (SIA). It is a universal, user-oriented (ex-ante) tool that clarifies the impacts of different options and alternative solutions. It provides information for decision-making and helps deal with various conflicts. According to earlier research, regular human impact assessment of new technologies at individual and community levels may stimulate their adoption by users. HuIA in this context may include, for instance, linkage of interactive learning tools to social effects such as trust and commitment, time use, information flows and feelings of participation and on pedagogical effects such as learning and professional development of teachers.

The data is collected from Video-Supported Education Alliance – ViSuAL project. ViSuAL is an European alliance of six Higher Education Institutions and six Educational Technology Designers co-creating an evidence-based pedagogical model for Video-Supported Collaborative Learning. The developed solution develops students' critical thinking and problem solving skills that are important for navigating the turbulent, knowledge-intensive and entrepreneurial work-life. In the long run, ViSuAL will contribute to meeting the modernization needs of European Higher Education Institutions in advancing digital skills for learning and teaching. Due to the practical nature and provision of workable practices for transforming education, teacher will embrace the experimentations carried out in ViSuAL in local level and spread it through their institutes. The collected data of this study include, for example, interview data before and after the experiments, video-ethnographies on experimentations, and observation of the meetings related to experiments.

According to the preliminary results, the use of videos has impact on different stakeholder groups like teachers, students and digital learning personnel. In this study, we have limited the study on the impacts on teachers. Firstly, there are impacts on time use. The use of videos in teaching demands more time than more traditional teaching. The teacher should consider carefully why and how s/he is using videos and how the use of videos supports pedagogy. The attitudes of students are not necessary positive and it had to be explained the role of videos in teaching. Secondly, there are impacts on other teachers and/or digital learning personnel. The use of new technologies demands technical support that could be official like courses and seminars or unofficial like help seeking from colleagues. In addition, the role of teacher is changing more to a motivator or coaching partner. This also means that the teachers necessitate the possibility to discuss the impacts of video-supported teaching and learning.

Keywords

video, teaching, impact

14.11

‘PLATFORM COOPERATIVES’ AS AN AHISTORICAL CONCEPT: THE CASE OF FINNISH TAXI DISPATCH COOPERATIVES

Arto Lanamäki

University of Oulu, Oulu, Finland

Scholars such a Trebor Scholz and Michel Bauwens have advocated for ‘platform cooperatives’ as a feasible organizational model to counter against platform capitalism. The literature depicts platform cooperatives as an emerging idea to be realized sometime in the future. In this paper I call for historical analyses of cooperatives and their relationships to platforms. It may well be that platform cooperatives have a much longer history than what the recent literature presents. I provide an example from the Finnish taxi industry where cooperatives have been the dominant organizational form to provide taxi dispatching services.

Keywords

Platform cooperative, taxi dispatch SMEs, critique

14.12

FINNISH ESPORTS LEADERSHIP - CHARTING THE TERRAIN

Minna Kallinen-Kuisma, Tommi Auvinen

University of Jyväskylä, Jyväskylä, Finland

Esports as a rapidly growing field of sport, entertainment, and business offers an interesting research arena. In this qualitative study, we focus on Finnish esports leadership, considering both the definitions as well as the leadership processes in the professional electronic gaming. Our aim is to chart the terrain and increase understanding of the theme so far little empirically studied, and to open views for further research.

The new era of digitalization and virtual organizations fosters new practices of management and leadership. During the last years, the field of esports has emerged as a serious profession with professional organisations, as well as purpose-driven and salaried teams and individual players. According to the statistics portal Statista (2018) the numbers of professional esports players have increased from 786 players in 2010 to almost 9,000 in 2015, and the global annual revenue of the field has jumped from USD 130 million in 2012 to USD 655 million in 2017, and is expected to reach USD 3 billion by year 2022. These noteworthy changes in the working landscape have created an imperative need for stronger management and leadership research and education on the field.

This study can be seen as an opening for further empirical research on Finnish esports leadership. Due to scarcity of scientific discussions, a wider selection of literature on leadership research and international esports leadership studies have been utilized. This study aims to add value to both practice- and theory-oriented development of esports education and leadership.

The empirical data consists of semi-structured theme interviews supplemented with ethnographic observation (field diaries). In our analysis, we describe how esports professionals define an esports organisation, and how the informants perceive management and leadership in an esports organisation. We also discuss some leadership-related challenges that emerged in our data, including for example the rapid nature of changes in the esports teams and organizations, and the leadership role of an esports coach.

In addition, the age structure provides an interesting and special view on leadership research in esports. Many professional teams consist of young people who are only taking their first steps in the working life, thus lacking the experience and common knowledge of work-related practices and expectations. This, combined with a set of new professions in a novel territory, offers a fruitful field for leadership, as well as e-leadership, research.

Keywords

esports, leadership, digitalization

14.13

CONSCIOUSNESS-BASED VIEW AS A NEW FORM OF ORGANIZING IN THE DIGITAL AGE

Marja Turunen

University of Turku, Turku, Finland. Aalto University, Espoo, Finland

Organizing is taking place in a world that is increasingly permeated with digital technologies, such as Internet of Things, Artificial Intelligence and Big Data. These technologies change the very core of products and services that we use every day (Yoo, Boland, Lyytinen and Majchrzak, 2012) and subsequently they influence us as organizational actors. In the process, they also transform work and enable collective action (Constatines & Barrett, 2014; Constatines & al., 2018) for societal change.

The extant research shows a small group of likeminded people, mostly young men, designs digital products and services (OECD, 2017). Secondly, the acts of strategy and management i.e. 'organizing' is planned based on the canonical management of individualistic terms (Schaztki, 2004), and run by a small group of managers, mainly men again. Whilst this may not be the only quest for new ways of organizing in the digital era, it is an example which has led to the situation where there are groups of people who are not engaged and able to influence the cause of action of digitalization. Secondly, there are missing services and products that may have been invented if there had been more succinct ways of organizing and innovations.

Whilst there is an abundance of innovation in the digital arena, there is the question whether the forms of organizing have been able to renew in the pace of change of technological innovations. To fill this void in literature, this paper is presenting consciousness-based view (CBV) of organizing (Turunen, 2015). CBV suggests an overarching new form of organizing in the digital era. We argue that the extant modes of organizing rely on the old assumptions, such as considering organizing in individualistic terms. Consequently, they fail in taking the distributed form (Latour, 2005) of extant digital innovation into account.

In turn, CBV mimics the current distributed nature of digital innovations, such as innovation in the web-based technologies and users as active contributors to innovations (Garud & Turunen, 2017). It is based on flat and distributed ontology (Callon & Latour, 1981; Latour, 2005). Thus enabling the actors to contribute to the course of organizing. The term, consciousness, in CBV is defined as 'knowing together'. It differentiates from the prevailing definition in management as an individual account of attention (Simon, 1956). Knowing together addressed the assumption that living structures, such as organizing, is not an isolated area of management function, but based on what people do in organizations when engaged in the digital solutions and work practices. But why would consciousness-based view be of interest of anybody and those involved with digitalization or organizing? Let's look a little big backwards into history of organizing.

In the stream of resource-based view discussion, early 1980's Wernerfeld (1984) proposed that strategic position was dependent on strategic resources of focal organization in competition, such as raw materials and talented employees called as a resource-based view (RBW). This view of the resource dependence of firm success was a decade later developed into knowledge-based view (KBV) by Grant (1996) and Spencer (1996). The key argument of KBV was that knowledge and ability to learn were the strategic resources that made distinct the winners in the high competitive situations (Grand, 1996; Spender, 1996). This theory was further developed into a higher abstraction level as an attention-based view (Ocasio, 1997).

ABV focused on attention (James, 1949; Simon, 1956) as a strategic resource. Consequently, there were not concreate resources in the first place but very abstract and difficult to trace attentional tendencies of individuals, teams and industries. Attention based view by Ocasio (1997) described "organization as a distributed system of attention". This view is maybe more describing the organizing in the digital era where the every traces of our behavior, even attention can be traced back and analyzed by the big data and algorithms. Thus, the mechanisms, how to control and influence to the qualities of attention (Weick & Sutcliffe, 2006) and qualities of consciousness (Turunen, 2015) become critical in making boundaries to private and public arena in the work.

A particular contribution of CBV is to increase the knowledge in organization theory on consciousness and its distributed (Latour, 2005), entangled and fundamental nature in creating sustainable, ethical and innovative ways of distribution of wealth through organizing in the digital age. Thus, it gives stamina to take back the authentic core of humans in the balance with the world. Consciousness, by its dynamic nature is able to stretch into the individual, collective and even quantum materiality of the planetary system.

Keywords

Organizing, Digitalization, CBV

14.14

ESTIMATION OF DISCOMFORMITY OF ENVIRONMENTAL FACTORS FOR WORKERS OF THE SHIFT FORMS OF LABOR IN SOUTH RUSSIA

Natalia Simonova[1,2], **Yana Korneeva**[2], **Marina Arefina**[2]

[1]Moscow State University, Moscow, Russian Federation. [2]Northern (Arctic) Federal University, Arkhangelsk, Russian Federation

The study was carried out with the financial support of the Russian Foundation for Basic Research in the framework of the research project No. 18-313-00054 A. In the studies of many authors, it was found that three groups of factors affect workers in rotational work organization: climatic and geographical factors related to climate; production, due to the danger and harmfulness of production, and social and household, depending on the conditions of group isolation. On the basis of all these factors, the requirements for the body of a shift worker are formed, which often exceed its reserves, which excludes the possibility of the organism completely adapting to these conditions and causes the occurrence of occupational health risks.

Note that in the south of Russia is also widely used shift method of work organization. In this regard, it is necessary to determine the difference in the impact of rotational labor factors on workers depending on the location of camps: in the north or south of the Russian Federation. This will make it possible to understand which technologies of psychological support for shift personnel, developed for production facilities in the north of Russia, can also be applied to enterprises located in the south of the country.

Objective: to identify the most uncomfortable climate-geographical, production and social factors according to the results of a survey of workers in shifts of labor of various professional groups in the south of Russia.

To achieve this goal, a study was conducted in which 82 shift workers employed in the construction of a production facility in the south of the Russian Federation took part.

Research methods: the study of documentation, observation of the workflow, questioning, statistical methods of data analysis. The developed questionnaire was aimed at obtaining information about the biographical data of the employee and the features of his work activity. With the help of a survey, a subjective assessment of the comfort-discomfort of climate-geographical, production and social factors was conducted on a five-point scale, where 1 - the factor is not felt at all, comfortable, and 5 - is felt to the maximum, uncomfortable.

Statistical analysis methods: descriptive statistics and multidimensional analysis of variance. Statistical data processing was performed using the IBM SPSS Statistics 22.00 statistical package (license agreement No. Z125-3301-14 (NArFU).

The most uncomfortable climatic and geographical factors for shift workers in the south of Russia are high temperatures, wind, solar radiation and high air humidity. The most uncomfortable production factors in the construction of the facility for shift workers in the south of Russia are noise, chemical factors, enhanced control of compliance with safety regulations, increased surface temperature of equipment, monotony and static physical exertion, as well as high labor intensity. The most uncomfortable social and everyday factors of workers of rotational forms of labor in the south of Russia are the lack of a developed cultural infrastructure, the lack or absence of food and difficulty in transport and communications.

According to the working conditions of the profession, demanded during construction, can be divided into four professional groups: electric and gas welders, installers, consumer services workers and machinists. Statistically significant differences in assessing the comfort and discomfort of climatic-geographical, industrial and social factors for shift workers of various professional groups engaged in the construction of industrial facilities in southern Russia are identified.

Keywords

Shift work; climatic and geographical factors; production factors

15.01

THE IMPACT OF WORK RELATED ICT USE ON BLURRING BOUNDARIES BETWEEN WORK AND PRIVATE LIFE. WHO BENEFITS WHO GETS INTO TROUBLE?

Ines Entgelmeier, Timothy Rinke, Anne Busch-Heizmann

University Duisburg-Essen, Duisburg, Germany

Digital communication technologies, such as computers, laptops and smartphones, promote the use of temporally and spatially mobile forms of work and increasingly transport employment-related tasks into the private sphere of life. The sociological discourse points to ambivalent consequences for employee: Digitization as a driver of dissolving boundaries between work and private life, of intensification and extensification of work; as a guarantor of compatibility for work, family and leisure time; as a gain of autonomy for the individual arrangement of work and life, as a danger of self-exploitation and mental overload.

So far, the opportunities and risks outlined here have been little empirically examined for Germany. There is a lack of representative quantitative studies. With a few exceptions (Kirchner, 2015), the state of research is based primarily on studies from the USA and Canada (Chesley, 2014, Schieman & Young, 2013, Wright et al., 2014). Simultaneous statements on the use of digital technologies and their impact on the working and living sphere are therefore hardly possible for Germany. For example, the use of ICT can increase the workload by soften the boundaries between work and private life. This process can be distressing when recovering from work becomes a problem ("Negative dissolution of work and personal life"). But it can also serve as a resource if requirements from both spheres of life can be integrated more flexibly into everyday life ("positive dissolution of work and private life"). Furthermore, past results do not allow to say for whom work related use of ICT can become a resource and for whom it can become a risk in relation to the dissolution of boundaries of work and private life in Germany.

We are going to examine the impact of work related ICT use on the demarcation of work and private life. In addition, in this analysis, we are taking into account person-specific characteristics such as gender, occupational status and family responsibilities. Thereby "risk groups" can be identified for which work related ICT use is associated with negative outcomes as well as groups which benefit from their use.

With regard to the theoretical and empirical state of research, we assume that a work related ICT use will lead to an increase in the dissolution of boundaries between work and private life (Carstensen 2015). But the effects may differ depending on person-specific characteristics. According to Schieman et al. employee in high occupational positions, unlike those in lower, have additional resources like higher work autonomy ("resource of higher status hypothesis") which may buffer negative aspects of work related ICT use and allows them to use them as a resource for the integration of working and private life. Women, especially women with family responsibilities, are expected to be more affected by negative aspects of dissimulation than men due to their responsibilities for both paid and unpaid work. By contrast, feminine connotations of competences resulting from their gender specific socialisation can be of great benefit to highly qualified women in dealing with demands resulting from a dissolution of boundaries (Frey 2004, Voß and Weiß 2005).

We conduct cross-sectional and panel data regression analysis with the data of the European Working Conditions Survey (EWSC 2015), the Socio-Economic Panel (SOEP 2006, 2011, 2016) and the BIBB / BAuA Employment Survey (2012). By linking the data from the BIBB/ BAuA Employment Survey with the data from the EWCS and SOEP we are allowed to differentiate in detail between dimensions of work related ICT use, such as for example working on the computer and using the internet and e-mail as well as other job profiles which are particularly strongly connected with the use of ICT. The datasets also contain variables to map positive as well as negative consequences of ICT use corresponding to the concept of work-life conflict (Greenhaus and Beutell 1985, Cinamon and Rich 2002) and the enrichment concept (Greenhaus and Powell 2006).

Preliminary results from cross-sectional regression analysis with EWCS 2015 support the relevance of group-specific features for studies on the impact of employment related ICT use on the delimitation of work and private life. As computer, laptop or smartphone usage increases the likelihood of leisure work increases too. There are no differences between occupational positions but between women and men. While for women and also for women in management positions the likelihood of leisure work is reduced by working with the computer, laptop or smartphone, this effect does not show for men. The use of ICT can also facilitate compatibility between working and private sphere. Increasing computer use in the workplace improves the possibilities of reconciling the areas of life for women and men. It also makes no difference whether they live together with children or not. For people in management positions, however, the compatibility decreases regardless of gender.

Keywords

ICT, Blurring Boundaries, Work-Family/Life Conflict

15.02

FLEXPLACES AND OVEREDUCATION – CAN HOME-BASED TELEWORK CLOSE THE OVEREDUCATION GENDER GAP AMONG WORKING PERSONS IN GERMANY?

Ana Santiago Vela, Alexandra Mergener

Federal Institute for Vocational Education and Training (BIBB), Bonn, Germany

Germany is known to have a strongly developed vocational education (VET) system, whose standards are based on labour market requirements. A highly stratified and standardised educational system is seen as responsible for the close link between the educational system and the employment systems, yielding to structured assignment of qualifications profiles to job positions. Moreover, an extended literature shows that countries with a high share of vocational education usually experience lower overeducation rates than countries which a stronger focus on a general education system. However, even if Germany shows comparably lower overeducation rates at the international level, an important proportion of employees cannot adequately use their acquired qualifications at a vertical level, so that they are overeducated with respect to the educational requirement of the workplace. In order to find explaining factors for overeducation, gender has been proven to play an important role in the mechanism of vertical assignment between educational system and labour market. Women are more often overqualified for their jobs. There are various reasons for this analytical observation. The theory of differential overqualification, for instance, makes use of the concept of local labour markets to explain priorities for job choices. Thus, in partnerships, optimal job choices for both partners are much more difficult than for singles. Men's job choices are more likely to take precedence, while women tend to make the decision depending on their partner's job placement, thereby constraining their decisions more often to local labour markets. As a result, the supply of (qualificationally adequate) jobs is restricted to these local labour markets. In this sense, women have more difficulties to find a job that is adequately matched to their acquired qualifications. This can more frequently lead to mismatched positions.

Such limited local labour markets can be opened up by opportunities for locally flexible work. Especially in times of digitalization, home-based telework opportunities are increasing due to digital networking and the use of information and communication technologies. This makes it possible to work independently of the companies' places so that the link between home and workplace is less of an issue. Research also shows that home-based telework improves employees' work-life balance by facilitating the combination of family life and paid employment, especially for women. Therefore, we ask: Can teleworking reduce overeducation by enabling especially women to work in jobs that match their qualification but are outside their local labour markets?

To answer this research question, we use original data from the BIBB/BAuA Employment Survey 2018, a representative telephone-based survey of more than 20,000 working persons in Germany. Aspects of particular interest include rich information on requirements and workplace characteristics and on qualification backgrounds of employed persons, such as highly disaggregated training and current occupations, tasks, use of telework and regional indicators. This enables us to unravel the relation of regional aspects of local labour markets to home-based telework and educational mismatch.

Keywords

Telework, Overeducation, Gender differences

15.03

FLEXIBILITY AND WORK IN THE AGE OF PLATFORM ECONOMY – IS IT NEW, IS IT BETTER?

Sanna Rouhiainen

University of Turku, Turku, Finland

New technologies are said to enable new and more flexible ways to arrange work. This is especially the case with the discussion – and hype – regarding platform work. Digitally mediated work through platforms – be it simple clicking tasks, on-demand services or more complex knowledge-intensive projects – is often advertised as a way of doing work or gaining extra income with unprecedented flexibility. The workers are lured by the

platforms with the possibility of doing work just as they like. By doing work through platforms, the workers are said to gain the total freedom to choose what they want to do, when and where they want to do it, for whom and maybe even for how much. However, several studies have called under question both the novelty and the flexibility of the different kinds of work arrangements regarding platform-mediated work. For example, there is a heated debate on the status of the workers, whether they truly are independent contractors or actually employees of the platforms.

In this presentation, the flexibility of platform work is approached qualitatively from the point of view of highly educated professionals and knowledge-intensive work. The data used consists of 12 semi-structured interviews with Finnish highly educated professionals, who have experience of being self-employed (freelancer or entrepreneur) or doing contingent work. In other words, the interviewees were familiar with "traditional" autonomous and flexible work, outside the realm of "new" platform-mediated work. The interviewees had previously taken part in a survey, in which they had announced being interested in the opportunity of doing work through platforms. Some of them also already had real experience of doing platform work.

The following questions will be discussed and elaborated in the presentation:

- What do highly educated professionals experienced in flexible and autonomous work think about platform work? What kind of types of flexibility do they associate with platform work?
- What kind of experiences do they have of flexibility in platform work?
- Do they associate different kinds of types of flexibility with platform work than with "traditional" freelance or contingent work outside the platforms?

Keywords

flexibility, platform work, highly educated professionals

16.01

NEGATIVE EXPERTISE AND THE EROSION OF PROFESSIONAL AUTHORITY IN THE POST-INDUSTRIAL SOCIETY

Jaana Parviainen, Anne Koski, Lauri Lahikainen

Tampere University, Tampere, Finland

Over the last decade, epistemological discussions on ignorance, insecurity and unknowns have developed into a dynamic research field (e.g. Proctor & Schiebinger 2008; Sullivan & Tuana 2007). A wide range of scholars across many disciplines have begun to consider, for instance, how social and economic issues are involved in the strategic uses of disinformation at the political level. The global economic recession after the 2008 financial crisis, combined with the rise of social media and the goolezation of knowledge, has greatly contributed to the development of 'post-truth politics' and anti-intellectualism, including the Brexit referendum and rise of Donald Trump. Instead of healthy skepticism towards professional knowledge, there have been an increasing number of signals indicating that citizens as the stakeholders of expert organizations are challenging professional competence and knowledge through the networks of social media (Nichols 2017).

The aim of the paper is to understand external pressures constructed by stakeholders on expert organizations and the internal tensions of organizations shaping the status and authority of professionals in the post-industrial society. In the fields of professional education, negative expertise is used as a key conceptualization in theoretizing the limitations of knowledge and skills in expertise work. These theoretical considerations are integrated in an agenda for empirical investigation of various professions, such as, education, social work and health care. Gartmeier et al. (2008) have defined negative expertise as a reflective practice that is involved in the professional's ability to avoid errors at work tasks and recognize the limits of one's own expertise. Negative expertise also includes learning from mistakes (Straehler-Pohl & Pais, 2014) and refers to capabilities of unlearning when applicable knowledge becomes obsolete(McWilliam, 2005; Parviainen & Eriksson 2006). So far, the discussion of negative expertise is focused on the individualistic and internal perspectives of professionals arising from practical experience and dilemmas within concrete work contexts. Emphasizing individuals' responsibility for their professional competence, these approaches are missing analyses of the role of digital disinformation and constructed ignorance in undermining the institutional status of professional knowledge.

Thus, we go beyond existing contributions by systematically relating the concept of negative knowledge into the conceptualization of ignorance in order to appraise the added-value of the concept of negative knowledge. Our re-formulation of negative expertise aims at capturing novel dimensions of this phenomenon by analyzing the notions of ignorance, insecurity and disinformation in the context of professional knowledge. Applying Roberts' (2012) notion of purposively incorporating ignorance into management strategies it is possible to analyze the impact of organizational ignorance on professionals' capabilities of using their competence. While uncertainty is about not knowing for sure (e.g. incomplete information) the phenomenon of manufactured uncertainty is frequently caused by strategic operations. Proctor and Schiebinger's (2008) notion of manufactured uncertainty is a

fruitful conceptualization in understanding epistemic pressures on expertise caused by spreading digital disinformation.

Focusing on internal and external pressures on expert organizations, our discussion evolves a novel epistemological approach to understand the role of disinformation and organizational manufactured insecurity in the knowledge-intensive work of professionals. Our theoretical paper begins with an introduction to the conceptualization of negative expertise. Then, we move on to discuss normative aspects of known and unknown relying on recent epistemological considerations of ignorance studies. The normative epistemological analysis needs the support of organizational epistemology (e.g. Roberts 2012), being capable of identifying insecurity raised by managerial operations. We close our discussion with the crucial question of the erosion of professional authority in the post-industrial society. By the erosion of professional authority, we refer to experts that struggle in a vicious circle: they are required to produce more with less resources being insecure about their job, while online dis/misinformation produced by peer groups, activists and false news websites question and doubt established knowledge.

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Keywords

expertise, ignorance, organizational epistemology

16.02

SELF-EXPLOITATION – A THEORETICAL APPROACH

Hans J. Pongratz

Ludwig-Maximilians-University, Munich, Germany

Changes of workers' subjectivities in new, and increasingly autonomous forms of work and organization have been subject to extensive exploration. On the one hand, researchers detected the spreading of entrepreneurial orientations, and interpreted them e.g. with the Foucauldian concept of entrepreneurial self (Bröckling, Rose). On the other hand, they diagnosed an increase of psycho-social stress, burnout, and exhaustion (Ehrenberg, Neckel). They traced this astounding impact of work autonomy back to project-based teamwork, permanent organizational change, and transitions to contingent employment. Oftentimes, researchers interpreted these effects as some kind of self-exploitation, though they seldomly elaborated in theoretical terms on this category.

In my talk I develop an analytical conception of self-exploitation drawing on basic assumptions of Marx (exploitation), Weber (rationalization) and Labour Process Theory (control). The analytical focus lies on practices and strategies of mostly highly skilled workers who try to master the balancing act between their entrepreneurial orientations and an exhaustive working life. I draw on the results of several empirical studies on project-based work, solo self-employment, and platform-based online labour to prove my theoretical conclusions. In particular, I refer to the thesis of the 'entreployee' as a new type of labour power (Pongratz/Voß) that may be distinguished from the types of employee and proletarian worker by its systemically increased level of self-control, self-commercialization and self-rationalization. Becoming an entrepreneur of one's own labour power requires the exploitation of a particular kind of knowledge resource. For the time being, I characterize this specific source of knowledge as 'knowledge of oneself'.

The category 'knowledge of oneself' comprises workers' awareness of their own personal habits, motives, and feelings as well as their reflexive thinking about them. Workers themselves make this reservoir of strengths exploitable by using methods of time management, feedback, coaching or mental techniques. These methods merely become effective, if workers willingly apply them, as only the person him- or herself has direct access

to this knowledge resource. Workers may use these methods for purposes of self-realization with respect to private goals as well as for ambitions of self-optimization to improve their work performance.

In the context of capitalist modes of labour organization I interprete these methods as means of self-exploitation. A complex mix of internal and external control mechanisms constitutes the entreployee-type of labour power. These control mechanisms imply the notion of acting as 'one's own exploiter'. And, thus, they lead to a turning point in our view of social processes of individualization, and refer back to concerns of mutual support and collective prevention. I discuss the interplay of control mechanisms and collective strategies exemplarily for work in academia. Offering high levels of work autonomy, universities and research institutions have been boosting self-exploitative career strategies for a long time. They might allow for the development of counterstrategies, instead, as academia not only comprises competitive knowledge production but collective knowledge sharing as well.

Keywords

self-exploitation, subjectivity, entreployee

16.03

THE QUESTIONS ON DISCRIMINATION AT WORK: FUNCTIONALITY AND NEED FOR DEVELOPMENT

Marjut Pietiläinen, Hanna Sutela

Statistics Finland, Helsinki, Finland

Introduction: Based on the Finnish Quality of the Work Life Survey, we know that ten thousands employees face discrimination at their workplace in Finland. We know that discrimination is typically based on favouritism and in receiving information. In turn, what we do not know is how survey questions on discrimination, how respondents interpret these questions and how a web survey works as method compared to interviews.

Objective: This study focuses on assessing the suitability of web survey in researching experiences of discrimination. Another aim is to find out whether there is a need to develop the questions on discrimination in the FQWLS or add new questions. The study finds out how respondents interpret the questions (identical or not) and how they felt the questioning method.

Data and the methods: This study is based on two data. The web survey was targeted to the respondents of the Quality of the Work Life Survey 2013 who had observed or experienced discrimination or unfair treatment at their workplace and to a reference group. The interviews were targeted to the respondents of the web survey who had experienced gender-based discrimination themselves. Descriptive methods and content analysis are used in analysing the data.

Results: The study shows that discrimination questions work well and respondents understand the questions similarly enough. Respondents experienced data collection methods differently: some preferred a web survey and others traditional interviews. In this study, the effect of the method on the current questions seemed minor. In the case of the open-ended answer the impact might be bigger.

Conclusions: Based on this study the current questions on discrimination in the FQWLS seem to function well and, as a consequence, these basic questions should be kept as they are. Anyhow, based on the study a couple of new questions to the discrimination question package of the FQWLS are suggested.

Keywords

discrimination at work, survey methods, questions on discrimination

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P.16.04

ORGANISATIONAL VALUES IN DAILY LEADERSHIP FROM THE PERSPECTIVE OF TRUST

Jaana Salmi, Mirjami Ikonen

University of Joensuu, Joensuu, Finland

The paper discusses the relationship between organizational values and trust. Trust is a phenomenon manifested, for example, between two organization or between actors inside of the company. The current paper focuses on trust and values between actors. Trust is an abstract phenomenon and challenging to explore. Trust can be one of the organizational values, but it may have several meanings. The study focuses on the perceptions of the two actors in the case organization.

Values are something that we can believe and engage. Personal values might be beliefs regarding the organization and the organisational values direct how the organization works in practice. Generally, the organisation presents espoused values to the shareholders and partners (Kabanoff and Daly, 2002). Language is constitutive of the world (Clarke, Friese and Washburn, 2018) and if we generalize that we interpret language constitutive of the organization employees which is working in the organization. Organization values play an important role in management.

Trust as an intangible asset needs elements like communication, organization values and leadership to develop. An intriguing question remains 'Why trust is so important and what is the benefit of it?' Trust has many definitions; the most cited is the one of Mayer et al. (1995, 712): "The definition of trust proposed in this research is the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party."

The case study focuses on organization values and the role of the trust in management at the interpersonal level, more precisely, in supervisor-employee relationships at four organizational levels. Both concepts of values and trust are highly abstract. The study is conducted in HUS's IT Department by interviewing supervisors at four levels of the organization. Regional government, health and social service reform have begun, but its impact is not yet visible. The impact of change on value-based activity and trust is beyond the aim of the current study.

A qualitative methodology is the most appropriate approach when describing the actual situation in the best way (Mayers, 2013) and while focusing on the depth and multi-dimensionality of the relationship between values and trust. The data is collected by interview. The aim of the data is to describe how supervisors think and talk about organizational values and what kind of bond is formed in trust. Discourse analysis is used to interpret the data that was first recorded and then transcribed in a written form. The analysis of an interview of one supervisor illustrates the phenomenon of intertwined values from the perspective of trust. The interview focused on organizational values and trust building. We Interpret the bond between organisation values and trust and how organization values are expressed in daily work.

The preliminary key findings show that the supervisor leads his own team, set goals and prioritize tasks. First finding is that team members have their own responsibilities. Second, a supervisor seems to communicate new information to the team but also listens to the subordinates. The work community seems to be interactive. Third, even though the supervisor seems to be value-oriented, the team members may experience situations differently. This has an effect on trust development in supervisor-employees relationships and within the team. It trust develops between actors and parties in daily situation either declines or strengthenings.

Each interactive event between actors is different. Interaction is affected both by ongoing issues and by experiences of individuals. The situation allows the development of trust, but also for its breakdown in negative situation. Of course, the interpretation and haste of gestures can affect the interaction of the parties, which is easily misinterpreted.

Our interpretation is that values are not thought of in the context of action. One hand, organizational values are built-in and learned models that are being driven by organizational culture. The values are not fully concrete. At its most concrete, they occur in daily interaction.
On the other hand, communication is challenging. Misunderstandings occur when the workload is too high and there no time for conversations. Previous experiences may cause prejudice. In an interaction situation, the poorly communicated thing is misunderstood and the employee thinks that he was not treated equally. In this case, it is thought that the superior did not work in accordance with the values. Experience can influence the development of trust between the supervisor and the employee.

To conclude, at its most concrete, values occur in daily interaction. This contributes to the development of trust. Communication works between subordinates and superiors, but also between teammates. This may affect the development of trust between each actor. Savolainen et al. (Savolainen, Lopez-Fresno and Ikonen, 2014) say, that open communication is one of the most important factor in building trust within organization.

Keywords

Trust, Values, Actors

16.05

OHS PROFESSIONALS IN THE DIGITAL REVOLUTION - THE USE OF TECHNOLOGY AND CHANGING SKILL REQUIREMENTS

Tiina Koivisto[1], Elina Weiste[2], Päivi Husman[2], Johanna Ruusuvuori[3]

[1]Finnish Institute of Occupational Health, Tampere, Finland. [2]Finnish Institute of Occupational Health, Helsinki, Finland. [3]Tampere University, Tampere, Finland

The digitalization of the operating environment is significantly changing the interaction and service processes of occupational health services (OHS). At the same time, co-operation relationships among experts, client relationships and the construction of expertise are being challenged in a new way. As work life becomes more international and multilocational, OHS need to create remote services. The multidisciplinary environment of OHS demands the redefinition of the key areas of work and the reorganization of operations, as technical systems pose special challenges for co-operation and competence. To comprehensively understand the digitalization of health care, alongside the technological and medical perspective, we need to understand social science.

The presentation asks how OHS professionals have experienced the benefits and drawbacks of using technology in their work, and how they perceive the technological skills required by their changing work environment.

The presentation is part of the 'Healthcare workers in the eye of the digital turbulence. New forms of cooperation and customer orientation' consortium project conducted by the Finnish Institute of Occupational Health and the University of Tampere and funded by the Finnish Work Environment Fund. The project will produce new information on the effects of the digitalization of health care service practices on the members of the work community and on the relationships between workers and clients. The data consist of thirteen semi-structured individual and group interviews of OHS professionals, which have been analysed using qualitative content analysis.

Preliminary results show that the professionals consider their unpleasant routine tasks to have decreased and that meeting practices have become smoother. However, opinions regarding access to information are conflicting: on the one hand, information is more flexibly available, but on the other, the automatization of information analysis is not yet sufficiently developed from the perspective of the applicability of information.Technology-related problems and parallel systems were perceived as disturbing both workflow and coping at work. The presentation examines the professionals' experiences in relation to the changing needs of professional skills.

Keywords

experiences, telemedicine, occupational health professional

16.06

THE DIGITALIZATION OF MIGRANTS' LABOUR MARKET INTEGRATION SERVICES. BOOSTING OR HINDERING SOCIAL INCLUSION?

Satu Aaltonen

University of Turku, Turku, Finland

The presentation takes a critical look at the parallel implementation of the public e-service policy and the integration policy in an intriguing Finnish context, where internet access is one of the highest in the world and where significant immigration is a relatively recent phenomenon. At worst, when the implementation of these two policies collide and the provision of digital and other skills is overlooked, the outcome is increased digital stratification and reinforced patterns of social exclusion (Ragnedda & Muschert, 2013; Ragnedda, 2017, Lloyd et al. 2013) instead of improved equality – a shared value behind both policies.

The recent increase in the number of migrants and asylum seekers in Europe calls for more thorough attention to the labour market integration mechanisms of the receiving countries. The public services are in an essential role in integration, especially in the welfare states. The services are offered increasingly on-line, as an outcome of the interweaving policies of digitalization and austerity (Dunleavy & Margetts, 2010). However, the needs of the service users, their abilities to use the digital services and the public services offered do not necessarily match.

Effective use of digital services requires not only access to the internet and instrumental skills to operate hardware and software but also informational and strategic skills to achieve ones goals (van Dijk & Hacker, 2003). In addition to these digital skills, attention has been paid also to the role of language skills (Brazier & Morgan 2017, Kaufmann 2018), information (Lloyd et al. 2013) and administrative literacy (Grönlund et. al. 2007) in enabling effective utilization of e-governance. There is a particular shortage of these skills among those who have entered a new society and a new linguistic region.

Separately digital divide, e-governance and migrants exclusion have been studied thoroughly , but studies on the role of e-services as part of the services offered to migrants entering labour markets are rare. Migrants and minority ethnic groups have been mostly treated as a socio-demographic variable when studying the access and use of information and communication technology (ICT) in general and so-called digital divide in particular (Bélanger & Carter 2006). The studies conducted have been mainly survey based, quantitative studies aiming for generalizations. Ethnicity has been identified as a predictor of access to ICT, but as Helbig et al. (2009) remind, the causality is not that simple. The digital inequalities stem from the intersections of race, gender and income more than from the race itself. Studies on migrants' use of e-Governance are rare (for some examples see Lloyd et al. 2013, Alam & Imran 2015, Brazier & Morgan 2017).

This paper offers a contextualized description of the everyday situations, where migrants encounter the hybrid of 'information society' and 'welfare society'. It aims to illustrate the role of, resources needed to and the deficiencies preventing the use public e-services effectively among migrants aiming for labour market integration. Instead of aiming for generalizations, it deepens the understanding of the topic. The results are based on the interviews of integration service providers. The results indicate that even if the aims of e-governance and integration policy (understood as policy aiming for social inclusion) are parallel, e-governance does not necessarily speed up integration. The chapter brings the concepts of digital divide and information disjuncture (Lloyd et al 2013) together.

Keywords

e-governance, migrants, labour markets

16.07

FINNISH CEOS IN TWITTER: TWEETING FOR WORK PURPOSES

Laura Paatelainen[1], Pekka Isotalus[1], Sanna Ala-Kortesmaa[1], Jari Jussila[2], Johanna Kujala[1]

[1]Tampere University, Tampere, Finland. [2]Häme University of Applied Sciences, Hämeenlinna, Finland

In the age of social media, there is an increasing demand for companies to have an online presence and to be reachable via social media channels. This expectation also applies to the CEOs, who are increasingly seen as the face of the company they represent. CEO's personal messages can be more effective than the official company messages, which is why companies can benefit from the online presence of their CEO. This applies especially to Twitter, which is seen as the "business and elite media" compared to for instance Facebook, which is more geared towards personal communication. Use of Twitter creates both new opportunities and challenges for CEOs. Optimally, CEOs can utilize Twitter for spreading their own message and creating a positive sentiment around themselves and the company they represent. At the same time they have to be mindful of the challenges of opening oneself up to online interaction: misunderstandings, criticism and the chance of the company message being hijacked.

Increasing numbers of Finnish CEOs have adopted Twitter as a communication channel. Yet as of this moment, there is no clear picture of how Finnish CEOs actually use Twitter in their work. This research provides a comprehensive picture of the tweeting strategies of Finnish CEOs: what kind of topics do they tweet about, what is the function and tone of their messages and who are they interacting with.

The research data consists of tweets collected from the public accounts of 133 CEOs of Finnish publicly listed companies and te500 companies (companies on the list of 500 largest companies in Finland). The research data was collected during a seven-month period in 2018. The research method combines qualitative and quantitative analysis.

Results show that while a significant portion of the CEOs use Twitter primarily for company-related messaging and company branding, it is also used for other purposes, such as personal communication or participating in public debate. Results also indicate that a majority of Finnish CEOs choose to display their professional side in Twitter instead of presenting themselves as a private individual. This shows that Twitter is used first and foremost for work purposes: for improving the brand of the company, and that of the CEO. The overall tone of their tweets is either neutral or positive, negative tweets being rare.

CEOs are in the role of influences in society, which is why understanding of their tweeting practices is of societal importance. At the same time it sheds light on the changing work of the CEOs, and how they have chosen to utilize the new platform they are expected to be present at.

Keywords

CEOs, social media, communication

16.08

UNDERSTANDING TEAM COMMUNICATION COMPLEXITY IN CHANGING WORKING LIFE

Mitra Raappana, Tessa Horila

University of Jyväskylä, Jyväskylä, Finland

This paper is based on findings and conclusions of two communication dissertation thesis concerning teams in working life (Horila 2018; Raappana 2018). The aim of this assembling paper is to present collocated findings and new conclusions about team communication in the context of constantly changing working life. Both of the thesis are qualitative. We utilize different methods and perspectives, and authentic team communication data collected from working life. Based on our research we claim, that the most practical implication in teamwork is two-part: 1) to understand that team communication in working life context is complex and dynamic, and 2) organizations and team members can develop and adjust team communication. The concept of a team refers here to the various phenomena of group communication in working life.

Teamwork has established its place and image as an answer to the high demands of constantly changing working life, especially in Finnish working life. A lot of research is done in the area of team (and group and recently in organizational) communication, and many factors and processes have been identified to have a connection to team performance. However, the knowledge concerning specifically working life team communication is somewhat multifaceted and fragmented. That relation, though, is not always simply positive or negative. Actually, it seems to be, that many communicative factors can potentially affect to team performance directly, indirectly, positively or negatively. There are also limitations in the research settings and how working life teams have been examined; the data collected from students, laboratory-settings, favoring questionnaires, and studies examining short-term teams or in certain situation are examples of constrains occurred in working life team studies. Actual working life teams are, however, accompanied with their organizational environment, team members share different kinds of history, and are complex in different ways. Previous findings may not present real working life teams as such. That is why understanding team communication complexity as a whole is crucial – both in research and in in practice.

Working life is increasingly technologically mediated and so are working life teams. Teams are formed across organizational and geographical borders, because it is possible due new technology and different kinds of communication platforms, chats and conference tools. Actually, working life teams use several kinds of communication technology in their communication, despite the location of the team members. Of course, teams also communicate face-to-face if that is possible.

Even though working life teams are diverse in many ways, their orientation to achieve goals is a conjunctive characteristic. By means of tasks – such as planning, generating ideas, sharing social support, or making decisions – teams are reaching their goals. The tasks can be set from outside the team (by organization, customer etc.) or they can emerge during team communication. Furthermore, tasks such as allocating responsibilities, generating ideas, pointing and solving problems, and joking can all be beneficial and relevant to team communication. Despite the strong goal-orientation, not all team communication should be expected to be productive, straightforward, or even rational. Joking and sharing personal information, for example, may be important ways to construct team identity or enhance creativity. In practice, understanding this diversity in team tasks means that team members and leaders do not limit such interaction but allow it and evaluate the meanings it can have.

Another negotiable communicative process in teams is leaderships. There is no best way to arrange leadership that would work in every team in every situations. The success of leadership should not take as permanent or as the responsibility of only one person. Instead, the needs for leadership may change during team performance, goals may change or elaborate, relationships develop etc. Accordingly, it is important to reflect also the practices of leaderships, and enable team leaders and team members the possibility to change or renew leadership when needed.

Finally, in the digitalized working life, the relation between tasks and the use of technology has become interesting. In research, the focus has been on the fit between task and used technology, and in the examination of the impact technology might have on collaboration. The findings show for example, that the use of communication technology in a team can reduce social surfing and enhance the success. There are also indications that technology use can also challenge team communication. Actually, multifaceted findings suggest that the impact of technology on team communication and task work per se is not that relevant than it was used to think. The chosen technology should fit to the tasks, needs, and competence. To be able to adjust the use in practice requires competence, authority, time, and other resources. Again, understanding the complexity involving communicative phenomena is obvious.

Keywords
team, communication, working life

17.01

THE DEBATE REGARDING AGENTS AND SUSTAINABILITY TRANSITIONS – A REVIEW OF THE LITERATURE

Katariina Koistinen[1,2], Satu Teerikangas[2,3], Tiina Onkila[4], Marileena Mäkelä[4,2]

[1]LUT University, Lappeenranta, Finland. [2]University of Turku, Turku, Finland. [3]University College London, London, United Kingdom. [4]University of Jyväskylä, Jyväskylä, Finland

The existing global system is encountered with multiple unprecedented challenges, such as the degradation of ecosystems, over-exploitation of natural resources, climate change, wealth inequalities, and human conflicts. Addressing these grand challenges calls for urgent and radical change in societies, across the world. The transition literature is a growing research discipline addressing grand challenges. Traditionally, the focus in this field of research has been on the system level. However, in order to address the mounting sustainability challenges, the role of actors in sustainability transitions needs to be understood. This paper explores the role of actors in facilitating sustainability transitions. To this end, we review the scholarly literature on agency in sustainability transitions. Our review encompasses 77 journal articles on sustainability transitions and the multi-level perspective listed in Scopus from 2014 to 2018. We find that agents and agency are increasingly explored in the sustainability transitions literature. Despite this growing interest, this body of knowledge remains scattered across disciplines. Based on our review, we identified thirteen recurring themes. One theme drew our attention in particular; it appears that transition research is divided into those who argue that agency is sufficiently embedded in the transition literature and to those who oppose this argument. Going forward, in order to reach a more thorough understanding of how sustainability transitions progress, the dynamics of individual-level agency, including behaviors and motivation, deserve further attention.

Keywords

agency, agent, actor, sustainability transition, socio-technical transition

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17.02

THE ECOLOGIES OF SELF-REALIZATION: WORK, AUTONOMY, AND ENVIRONMENTAL CONCERN

Eeva Houtbeckers[1], Lauri Lahikainen[2]

[1]Aalto Univerity, Helsinki, Finland. [2]Tampere Universiti, Tampere, Finland

When we work, we are embedded in an ecology, or rather, multiple ecologies. Our work has environmental effects, some of them direct and immediate, some mediated through the work of others. We work to sustain ourselves, as waged labourers, subsistence farmers or by some other form of work. Our productive processes depend on an environment, the elements, natural resources, and other workers, both human and non-human. Yet this embeddedness is rarely taken into account in descriptive and normative theories of work or management practices. On one hand, the autonomy of the worker is seen as an ideal both in philosophy (eg. Dejours et al. 2018; Anderson 2018) and in many theories of management. On the other hand, environmental concern and the experiences of connectedness and common vulnerability with the non-human world are emphasized in environmental ethics and ecopsychology, but usually in the context of free time, not in the world of work. It appears that the "hyperseparation" of humans and the environment (Plumwood 2002) is especially forceful in theories and practices of work.

In this paper, we discuss the possibility of the entanglement of autonomy and environmental concern and connectedness through the empirical case of self-sufficiency households in Finland. The case is based on ongoing ethnographic fieldwork concerning post-growth work in the Global North by one of the authors. Self-sufficiency is a concept used by some of the participants in the study to describe their ways of being, which includes food, heat or electricity sovereignty. In academic discussions, self-sufficiency is used in reference to food security, social security, development of nations and criticism of the economic growth imperative.

The material of this study consist of two households located in Southern Finland and one in Eastern Finland. The researcher has visited them periodically. Although every studied household has a unique combination of self-sufficiency practices, it is quite common that they cultivate their own food, use firewood for heating and produce part or all of the energy with their own solar panels. Mostly this is possible outside urban and residential areas, where there are habitation and everyday life is less regulated. Thus, self-sufficiency relates to being 'off the grid' and detaching partly from the centralised infrastructure. This detachment is the precondition for the attempted ecological re-entanglement.

Among the people met during this study, there is usually an environmental concern that drives people to find out more information about what they can do. As a result, some decide to prioritise growing their own food instead of full time waged labour. The detachment from the capitalist world of work and growth economy is not complete. Some of the members in the studied household may still have a waged job, but it might be part time or temporary. Yet, their work is tangent to paid labour since people need to navigate an economy based on full-time paid labour that is reflected in social security and social norms. In addition, even though when the members of the household are not politically active, they have stories of instances when their lifestyle has made other people uncomfortable or hostile. Thus, in addition to physical work – garden, fixing the property – they are involved with emotional labour – how to justify their choices to people questioning them. They need to engage with meditative work – how to negotiate everyday situations, in which own choices collide with expectations from the institutions or social norms. Finally, on top of all other forms of work, they might engage with projects that aim to change existing institutions. While they end up working in many different ways, they report that being active outside home gives energy to work at home and vice versa.

In practice, running a self-sufficiency household is not a matter of either-or status. Rather, it is a process that takes several years to develop. Our hypothesis is that during this process new norms and practices of living and working in a sustainable way can be discovered. These discoveries are not dependent on a full detachment from more mainstream practices. Rather, some form of attachment may be required for the communication and more widespread take-up of the newly discovered forms of autonomy and ecological entanglement. Re-negotiating what counts as work and what is recognized as valuable is paramount in this process.

17.03

SUSTAINABILITY AGENCY INSIDE WEST AFRICAN PALM OIL

Matti Karinen

University of Turku - Turku School of Economics, Turku, Finland

This presentation seeks to understand how managers of a palm oil plantation in West Africa responded to a variety of pressures for sustainability amidst a complex and evolving institutional environment? In particular, this presentation looks at how managers sought, applied and adapted tools for achieving sustainable outcomes (e.g. a Free, Prior and Informed Consent [FPIC][1] process) to a complex local context while subject to global pressures acting both through Roundtable on Sustainable Palm Oil (RSPO) mechanisms and, more directly, by seeking to influence local stakeholders. Formalised social sustainability, enacted through e.g. community benefit agreements (CBA's), is understood to support firm value (Dorobantu & Odziemkowska, 2017), while also being a key tenant of the RSPO principles and criteria (RSPO, 2013).

Of interest in this paper are also the tensions between social and environmental sustainability and between local communities, the company and other stakeholders such as NGOs. These tensions are interesting because prior research on palm oil social sustainability has shown that communities are autonomous actors (Marquis & Battilana, 2009) that can use NGO involvement as a negotiation tool (Köhne, 2014), have interests that NGOs do not always consistently represent, or may be at odds with NGO aims (Rival & Levang, 2014; Therville, Feintrenie, & Levang, 2011). In addition, while Non-Governmental Organisations play a central role in advocating for sustainability and the rights of communities, they are not infallible (Fassin, 2009) and their actions can have ambiguous consequences for sustainability. For society more broadly, understanding what happens inside firms in the primary sector, such as palm oil agribusiness, can suggest ways in which sustainable outcomes might be co-produced. Investment in the primary sector, done well, can be a powerful catalyst for employment and regional (re)development, especially in areas that may be considered peripheral (Gifford, Kestler, & Anand, 2010; Rival & Levang, 2014). Done poorly, environmental, social and economic costs become significant (Baumol, 1996; Kemp & Owen, 2013)

This research will be conducted primarily as an intensive single case study using a narrative process research strategy (Langley, 1999, p. 695) combined with an ethnographic approach drawing on the author's experience working with the company in West Africa. This approach is supported by existing longitudinal data and notes from prior work with the case firm on sustainability issues at distance and on the ground in Liberia. Internal documents and materials are available for use from the founding of the case company in 2009, as are documents from within the multi-stakeholder framework of the RSPO. Further data is composed of interviews with case company management, stakeholders from civil society (NGOs and communities) as well as from government in order to include multiple voices and perspectives. The case company is an RSPO certified producer subject to the principles and criteria governing sustainable palm oil and committed to delivering development in its region of operations by its concession agreement with the host country government.

Preliminary findings suggest that while international stakeholders hold significant power towards the firm, achieving their interpretation of social sustainability is dependent on whether that interpretation is shared by the impacted community and implementable in practice by managers in primary sector companies. Context dependent factors, organisational and local history and operational realities play a significant role as do the immediate needs of host communities. For managers, this study suggests that understanding and, as far as possible, integrating with host communities helps achieve a degree of social sustainability, while moderating the ability of some, but not all, stakeholders to affect the operations of the company. This study also suggests that managers in primary sector companies face a constant struggle to demonstrate compliance with outside expectations that are difficult or unreasonable.

[1] Free Prior and Informed Consent is a term within the RSPO principles and criteria signifying that affected indigenous communities have granted their permission to the investing firm to proceed with operations, without duress, and with sufficient time and information to make an informed decision.

Keywords

Sustainability Agency, Palm Oil, Ambiguous outcomes

18.01

EXPERTISE, ENTREPRENEURIALISM AND UPSKILLING OF WORK AT PLATFORMS

Anne Kovalainen

University of Turku, Turku, Finland

The contemporary economies' working life ethos and the current public discourse of the lifelong learning both emphasise the need for the constant renewal of skills of workers amidst digitalization and global competitiveness. For any expert work, the renewal of skills is put forward not only through the changing skills requirements at work itself, but increasingly, through organizational shifts, changes and developments in companies and organizations that require the renewal of expert skills. These changes challenge workers, who face both professional complexities and entirely new skill requirements (e.g. Grimshaw et al. 2002). This is particularly true for those workers who work at platforms and work with piecework (e.g. Irani 2015).

The learning at work is becoming increasingly important but also subject to several new tensions, as technologies develop and these significant changes challenge all skill-levels. If not monitored, rapid technologically driven change also can carry deeply rooted tensions when learning and working are combined. It may also be that the learning cultures at work and at education institutions are not up to the speed of changing technological environment. Learning at work is emphasised as one solution to the constant skills requirements and also as one solution to the 'competitive' edge of flexible worker and developing companies alike. But how to show the competitive edge when the worker is working at platforms and selling online piecework and single task related competences, instead of expertise with wider range of skills?

The upskilling debate that originally concerned work performed by highly trained workers and the future development of that work (deskilling – reskilling –upskilling, e.g. Braverman 1974), may now be reframed and redirected anew. The relationship between work and the one performing the work has changed. Thus, the thesis of deskilling and competences may be addressed anew and towards the kind of work performed by those who are highly trained experts, white-collar workers, and who working at platforms as self-employed and to those working as entrepreneurs. For self-employed and equally for those who work on platforms, the supporting structures of work communities and environments, that are proved to be important for the learning at work (e.g. Billett 2013) are missing. The communities of practice and informal learning have proven to be highly important, in addition to the formal learning procedures (e.g. Boud&Middleton 2003, Billett 2001). How to address the debate on upskilling of work through 'learning at work' when the work is organized autonomously, individually and fully virtually, yet fully dependently on those willing tie the contract with the work provider? In the paper, I will use the data from two large-scale surveys we have performed, in order to analyze the possibilities of such addressing of upskilling of work. The surveys are conducted in a research project (Pajarinen et al., 2018; Kovalainen&Rouhiainen 2018). The first survey covers highly educated experts' work and the digitalization of the work, and the second survey covers independent experts as contractors. The highly skilled experts work most typically in large or middle-sized organizations with support from those organizations for skills update. The second survey covers independently working experts on platforms, typically selling their expertise at markets to those seeking specific expertise the sellers offer. These two surveys give data to explore the deskilling-reskilling-upskilling thesis in more detailed manner through comparative aspect. Furthermore, both surveys and their data give empirical evidence to theoretically laden discussion of the ways we can address entrepreneurialism, skills formation and upskilling at platforms.

Keywords

expertise, upskilling, entrepreneurialism

18.02

PLATFORM WORKERS IN FINLAND

Anna Pärnänen, Hanna Sutela

Statistics Finland, Helsinki , Finland

Platform economy is here to stay. In the wildest visions, traditional employment relations will remain negligible relics in the future, when the majority of workers will earn their income via digital platforms. The Finnish Minister of Economic Affairs Finland recently expressed how the breakthrough of platform economy in the Finnish society is crucial for the national economy.

A lot of talk, but a little of quantitative data. Very little is known on workers in gig economy: who are they, what kind of work they do, how significant part of their income comes via digital platforms – for whom it is just another way to earn some additional income and for whom the platforms provide a way to survive? How do the gig workers themselves experience their situation?

National statistical offices are more and more pressured to capture the phenomenon in their labour statistics. However, platform economy is still such a marginal phenomenon in the European labour market that it is almost impossible to obtain good data to examine the issue. Moreover, there are significant challenges in the operationalisation of the concept in the surveys in a comprehensive way – not least for the reason that the definition of the concept itself remains somewhat unclear.

In our presentation, we approach the phenomenon from multiple perspectives. Firstly, we critically look at questions from various surveys trying to capture the phenomenon. Secondly, with the data of Finnish LFS 2017, we analyse the share of people earning at least a part of their income via digital platforms among the working age population and create a picture of their characteristics. Finally, we aim to top up this quantitative data with qualitative interviews during the spring 2018 in order to contribute to the understanding of the phenomenon and its consequences from the workers perspective.

Keywords

Platform work, statistics

18.03

A STRUCTURED MAPPING OF THE CHALLENGES RELATED TO WORKING CONDITIONS OF PLATFORM WORK: IDENTIFYING DRIVERS AND POTENTIAL RESPONSES

Karolien Lenaerts, Ine Smits

KU Leuven, Leuven, Belgium

In recent years, digitalisation has given rise to new forms of employment, of which work platform work is one of the most visible and most discussed forms. Despite its limited size, platform work has already made its mark in the sectors where it is concentrated, with the transportation sector as a key example. Although the body of research on the platform economy has rapidly expanded, the working conditions associated with platform work remain poorly understood. There are several reasons that may explain why this is the case, such as the strong emphasis on regulatory issues and platform business models in the earliest research. Previous research that does look into working conditions, has focused on specific aspects (e.g. autonomy, the role of technology in the organisation of work) or types of platform work (e.g. bicycle couriers). Other dimensions, like collective rights or occupational health and safety, have been somewhat overlooked. Moreover, many studies do not account for the heterogeneity in platform work. To date, a systemic, comprehensive and theoretically underpinned overview of the challenges related to the working conditions of platform work is

lacking. Such an exercise would, nevertheless, be helpful to anticipate developments and tailor policy responses. In this paper, we aim to fill this gap by conducting a mapping of the challenges related to the working conditions facing platform workers in Europe. To this end, we first elaborate a theoretical framework capturing various work dimensions and job quality indicators, and then examine how platform work fits into this framework. This will allow us to identify the main challenges of platform work and their drivers, and reflect on the appropriateness of existing policy responses to the rise of platform work. Our research builds on a combination of desk research and field work, including a thorough review of academic and grey sources and use of existing databases, qualitative interviews with stakeholders (including policy-makers, social partners, labour inspectorates, and occupational health and safety authorities), platforms and platform workers, and an expert survey, which allows us to document national developments and responses. Whenever possible, comparisons will be made with other forms of work that have common features, such as agency work or casual work, to assess how similar challenges are dealt with in these cases. With this study, we aim to equip policy-makers with a better understanding of platform work and how policies and institutions can help shape the new world of work.

Keywords

Platform work, working conditions, mapping

18.04

DIGITAL WORK AND THE RE-COMPOSITION OF CONTEMPORARY LABOUR

Wifak Gueddana[1], Roser Pujadas[2]

[1]King's College London, London, United Kingdom. [2]LSE, London, United Kingdom

We came recently to hear a lot of concerns and interrogations about the transformations happening in the world of work. Losses in workers' entitlements, rising levels of precarity, inequality, loneliness, and stress, which are said to be linked with the rise of digital platforms such as, Uber, Deliveroo, MTurk, Amazon, eBay and AirBnB (Ticona et al. 2018; Graham 2017, Vili 2017; Wood et al. 2018; DeValeiro 2017). Platforms are seen as a new breed of employers that promote algorithmic management and are behind the spread in the use of fitbits, cameras, biosensors, and AI supported tracking devises. These are also seen as new monitoring tactics that represent an extreme algorithmic Taylorism, influencing people's movements, and affecting their mood and behaviour (Gregory 2018, Moore 2016-2018).

Such studies undoubtedly bring the proof that platform work is expanding; yet it seems hard to believe that contemporary labour especially work that is facilitated by web/mobile technologies could be limited to platforms -even when adopting ILO's definition that includes both web-based work that is crowdsourced online -ex: CrowdFlower and MKT tuckers- and, location-based work offline -ex: Deliveroo cyclists, Uber drivers, TaskRabbit repairers- (ILO 2018). In fact, such work arrangements are largely uncharacterised given that the conditions of those who are already using platforms to work, i.e. what they do to achieve targets, compete and thrive, are under explored and vary a lot across countries, sectors and platforms.

For example, it has been reported that for every hour paid by MKT and CrowdFlower, Turks could spend as much as 20 mins that are not paid (FT 2018). This includes search, taking unpaid qualification tests, profiling clients to mitigate fraud and writing reviews. When added up, the total time spent to deliver tasks could earn them less than the minimum wage in countries such US, UK and Germany (Ibid). Other examples of platform worker who require non-website tools to work are Uber drivers, platform transporters and couriers. They must apply for a driving license to operate, check cars at MOT centres; if they do not have a car, they must call on private hire, or apply to a bank for a loan. Many create WhatsApp, FB and forum accounts to search, build support groups and learn how to drive more securely, quickly and efficiently. For some Uber drivers, Uber maps are unsatisfying; they keep them in the background while using Whaze or/and iPhone map to get through traffic.

Indeed, most platforms enable account holders to meet clients, network, and earn money; They do not however guarantee the quality and conditions of their work. They do not see themselves as a conventional work place, or treat users as workers (only consumers). Because of that, workers cannot rely on them. They only use them to find jobs, deliver and get paid. For the majority, platforms remain interchangeable tools, and those who can, juggle between multiple accounts to get more jobs and more clients -i.e. using one account to sell funky shirts on eBay, another to Uber drive during part of the night, another to sell ads on YouTube channels, while running a pet grooming business online.

Many activities, skills and resources are thus unaccounted for by platforms; instead, the latter keep their own records of time/work spent on the website based on transaction logs, which are increasingly used by labour bureaus and scholars to measure the platform economy (see Online Labour Index initiative by OII, UK). The scope and nature of the labour, some of which enabled by the internet, remain thus, undetermined. They are amalgamated with 'hope labour', 'invisible labour' or 'wasted labour', all of which are part the digital labour in the largest sense and go beyond the traditional view of platform work.

What we introduce here as a label problem, some may argue is one of measurement, which in a way is true; except, it is useful to remember that the under-characterisation of digital labour is what is preventing workers from benefiting from labour laws' protection -as some are as we speak, battling in the courtrooms to get employee status. Because labour bureaus cannot measure accurately the extent and scope of digital labour, they cannot provide evidence of a shift in the workforce; so, policy and regulation cannot be adjusted and platforms have no incentives to improve workers' conditions or pay them the minimum wages.

Our study spurred out of interest in digital labour and changing work practices; whether and how we could learn something about how work is changing by studying online forums and by examining how workers discuss new platforms/apps/features that mediate their relationships with clients, workers and other users. Accordingly, methods are key and also how we could build alternative sources of evidence that are not recorded by one website or from the users of one website (interviews, surveys) alone.

Keywords

work practices; platform work; activity concept

18.05

WHAT DOES THEORIZING WITH 'ACTIVITY CONCEPTS' TELL ABOUT PLATFORM WORK?

Laura Seppänen[1], Seppo Poutanen[2]

[1]Finnish Institute of Occupational Health, Helsinki, Finland. [2]University of Turku, Turku, Finland

Introduction and theory

In this paper, an activity theoretical perspective is applied to platform work with the aim of better understanding the essence and developmental potentials of this new and assumedly increasing phenomenon.

The theoretical framework builds on the notion of an activity concept, developed in the cultural-historical activity theory (CHAT) research. It refers to an idea or logic according to which a certain entirety is built, functions and develops. It includes both the relation of exchange between producer and user, and the relation between use value and exchange value (Virkkunen 2007). Use value means the benefit for the service users in their activities, and exchange value means the general value, mostly understood as money and price. Activity concepts resemble organizational cultures (Weick & Sutcliffe, 2007; Cameron & Quinn, 2006) in that they are not often verbally expressed nor are people aware of them until they are challenged by changes or disruptions. Activity concepts inherently include the perspective and intentionality of the involved actors.

The notion of an activity concept is roughly equated with different kinds of network configuration, as elaborated by Clay Spinuzzi (2015): clan, network, hierarchy and market. Clans are high-trust and promote the value of identity and interdependence of a group, achieving belonging. Hierarchies aim at control through authority and dependence. Work in the market concept is organized on the basis of competition among independent actors, and the trust, based on price mechanism, is low. And trust-based network concepts are used when open-ended, emergent objects are worked on, and when outcomes of knowledge creation and innovation are needed.

Using these configurational activity concepts as analytical lenses we ask: What kind of activity concepts workers enact when they are concretely doing tasks or projects through platforms? And how the concepts enacted by workers may relate to ideas at the start platform economy?
With these research questions the objective is to shed light not only into the state-of-the-art of platform work, but also to gain understanding of the possible cultural transformation that may have taken place in the new and assumedly increasing activity of platform work.

Data and historical emergence of platform work

The study concerns of a particular kind of platform work categorized by Eurofound (2018) as 'Online client-determined specialist work' in which work, in projects, are completed totally online, workers' required skill level is relatively high, and the worker, called freelancer, is selected by the client (requester) by means of an offer. The data consist of six interviews of Finnish freelancers working through a platform called Upwork. Upwork is the world's largest online labor market platform. It connects clients with freelance professionals from various disciplines. The semi-structured interviews were mainly carried out by telephone and lasted 40-80 minutes. The interview data were transcribed and analyzed using operationalized features of activity concepts as informed by Spinuzzi's (2015) configurations.

The historical emergence, as a basis to examining actual practices of platform work, is studied through writings of Arun Sundararajan (2016). He argues that the forms of exchange, of commerce and of employment in the sharing economy are not new. But the sharing with strangers, and the scale of sharing are new. Referring to Yochai Benkler (2004), Sundararajan (2016, p.32) states that the sharing activities among peers resemble market-based interaction, but with a difference that "social cues and motivations replace prices as means to generate information and motivate action".

Outcomes

The paper will present the actual functioning and especially the central role of Upwork's rating system, a digital mechanism of trust building in this global activity that substantially affects freelancers' reputation and possibilities to gaining projects and income.

Despite the early rhetoric of sharing and trust-based community of platform organizing (Sundararajan, 2016), and social cues and motivations replacing price as a means to motivate action (Benkler, 2004), the network features of freelancers' platform work remain limited. Network concept is not much present in freelancers' Upwork activities but there are some potential elements for it. The theoretical perspective of activity concepts of this study tells us that the dynamics or potential contradiction between market and network concepts can be interesting for platforms like Upwork. Developing a platform actively to embrace open-ended innovation possibilities would possibly be useful for all parties.

Keywords

work practices; platform work; activity concept

18.06

MULTIPARTY WORK RELATIONSHIPS AND WORK IN THE INTERNET-BASED "GIG ECONOMY": HOW TO ADVANCE ON STATISTICAL MEASUREMENT FOR EVIDENCE-BASED POLICY?

Monica Castillo

International Labour Organization, Geneva, Switzerland

In October 2018, the 20th International Conference of Labour Statisticians (ICLS) adopted the Resolution I concerning statistics on work relationships (henceforth, "the Resolution") which builds on previous statistical standards related to status in employment, establishing a more refined and far-reaching framework intended ultimately to support evidence-based research and policy regarding the complex and changing world of work relationships. At its core, the Resolution establishes a two-pronged approach to statistics on work relationships, on the basis of the authority relationships between workers and the economic units for which the work is performed and the economic risks that derive from contractual or other work arrangements. The Resolution is intended to support the production of national statistics on work relationships and facilitate international comparability.

A suite of standards was established under the Resolution that included a conceptual framework; key classifications on status in employment and status at work; operational concepts, definitions and guidelines; as well as a set of cross-cutting variables and categories. The Resolution contains a set of topics that will require further conceptual and methodological development and also areas of work identified in the future work agenda. This study will focus on two such topics, namely: multi-party work relationships and intermediated platform work (sometimes referred to as work in the Internet-based "gig economy"). These topics represent some of the priority follow-up areas identified during the deliberations of the 20th ICLS.

Multi-party work relationships and intermediated platform work are often associated with non-standard forms of employment (NSE) and are therefore of high policy relevance. However, data are still scarce on these topics, reflecting a lack of international guidance on statistical measurement. According to the Resolution, multi-party work relationships refer to contractual arrangements involving a worker, and economic unit for which the work is performed and a third party. Internet-mediated platform work, or 'platform work' refers to employment that is organized or mediated through an internet platform where the worker is not an employee of the enterprise that operates the platform. NSE refers to employment arrangements that deviate from the "standard employment relationship", understood as work that is full time, indefinite, as well as part of a subordinate relationship between an employee and an employer.

A 2016 ILO report on NSE around the world presents two principal types of contractual arrangements involving multiple parties, namely Temporary Agency Work (TAW) and subcontracting. The report also presents information regarding work in the gig economy or on-demand economy (which is defined as "work that is mediated through online web platforms") and suggests that the main forms that exist are so-called crowdwork and "work-on-demand via app" (and a related category, "transport network companies"). These forms of work share some common elements with casual work and disguised employment relationships and they raise important questions regarding labour protection since workers in the gig economy are most often

classified as independent contractors for whom worker rights as recognized in an employer-employee relationship do not apply.

The ILO report notes that crowdwork refers to work carried out via Internet-accessed platforms that connect organizations, businesses and individuals to provide a target output. Tasks performed on such platforms range from online "microtasks" to more complex work that can be outsourced to online "crowds". In "work on-demand via app", work is offered and assigned via mobile apps that are run by businesses that generally establish minimum quality service standards and also are involved in the selection and management of the workers. "Transport network companies" offer car ride services or other transport services via IT devices. In work on-demand via app arrangements the working activity is agreed online but performed locally.

This study will present summarized background information from a statistical and policy perspective, as relevant and available from the International Labour Office (ILO) and other sources on the two central topics of the study. It will outline how the topics fit into the overall suite of standards contained in the 20th ICLS Resolution and provide the statistical definitions adopted where applicable. It will describe key objectives, challenges and approaches as regards supporting further conceptual and methodological development or the establishment of new statistical standards (especially on intermediated platform work) to support countries. Finally, the study will close with the anticipated next steps and potential involvement from stakeholders.

Keywords

Multi-party work relationships, Internet-based gig economy, International Labour Office

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18.07

PLATFORM COOPERATIVISM IN ITALY: A COLLABORATIVE ANSWER TO THE CHALLENGES OF PLATFORM ECONOMY

Francesca Martinelli[1], Guido Smorto[2], Paolo Venturi[3]

[1]Fondazione Centro Studi Doc, Verona, Italy. [2]Università degli Studi di Palermo, Palermo, Italy. [3]Università degli Studi di Bologna, Bologna, Italy

The recent development of digital technologies sustained the birth of the platform economy, with digital platforms managing "cooperation", "sharing" and "collaboration" among people to make huge profits. The impact of these new, intricate economic models is highly disputed, as it questions the way value is created and extracted and profits are made, and significant side effects on privacy issues, regulation, competitions, workers' protection, bargaining power, and so on.

This paper examines the application to Italian cooperative platforms of the conceptual framework of "platform cooperativism", the innovative cooperation's movement created in the USA in 2015 by Trebor Scholz and Nathan Schneider with the aim of providing new forms of collaborative work in the platform economy. The paper is based on the first mapping and analysis of Italian cooperatives under such a framework. Platform cooperativism is based on a simple principle: cloning the technological heart of Uber, Task Rabbit, Airbnb, or UpWork and reshaping them with different ownership models, also involving actors such as unions, cities, and, above all, cooperatives. In fact, cooperatives may help ensure that those people who contribute to and depend on a certain firm may keep control and keep profits. Thus, offering a promising remedy against economic inequality.

Not all digital platforms are built in the same way. In this framework, Italy reveals innovative cooperatives and a general and organized level of cooperation, which lead us to reckon a new way to define and describe platform cooperativism. Due to the short history of platform cooperativism, there is still not an extensive bibliography. For this reason, the main research method of our research is qualitative (texts analysis, observant participation, and in-depth interviews). The study is also based on the investigations, conducted during several years, of cooperatives in France, Italy, and Spain. A previous study has been conducted by comparing Emilia Romagna (Italy) and Catalunya (Spain)–the two most important regions for the cooperative movement in Europe–, and was conducted by adopting criteria laid down by Dimmons, a Catalunya research at IN3-UOC group who held the first study case starting from an elaboration of Sholz' definition, led to some interesting results.

Compared to the standard description of platform cooperativism, the main finding of this research concerns the different reason for using a digital platform by a cooperative. At the core of Italian cooperative platforms, the main aim is not the redistribution of wealth by using open access technologies and democratic governance. Differently, Italian cooperative platforms are built in order to primarily answer their members' needs, and technology is not at the core of the business but a tool of the cooperative business.

Starting from this assumption, a second result of the study regards the construction of a new conceptual framework which may help to analyze more accurately Italian cooperative platforms. Being just a tool, technology cannot be used as defining criteria for cooperative platforms. Instead, this

study employs the seven principles of cooperation. These principles have been laid down having in mind that profits are not the main objective for a cooperative enterprise but a mean to an end, to achieve specific members' objectives, as defined in accordance to the common needs to which all cooperative members try to respond. Following these principles, and applying them to digital platforms, every technology can be a tool serving workers and can be used for inclusion, sharing, participation, mutualism, sustainability, and diversity.

The analysis of Italian cooperative platforms using this new matrix based on the seven principles, demonstrate how technology can support new forms of shared ownership and redistribution of wealth among users of a digital platform, new interactions among people with positive effects on governance and participation, it may increase positive effects on community and territories, and stimulate not only a different use of data but also support the birth of new forms of representation of users.

Keywords

platform cooperativism, Italian cooperation, platform economy

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18.08

PLATFORM SOURCING AS AN OCCASION FOR RE-ORGANIZING EXTERNAL KNOWLEDGE WORK: EVIDENCE FROM A COMPARATIVE CASE STUDY

Greetje F. Corporaal, Vili Lehdonvirta

University of Oxford, Oxford, United Kingdom

Over the past decade, an increasing number of firms have started to use online labor platforms, such as Upwork, Toptal and Catalant, to hire remote independent contractors. As such so-called 'platform sourcing' continues to grow, it is important to explore why firms adopt online labor platforms, especially for high-skilled knowledge work, and subsequently how this may change the organization of knowledge work. However, with its dominant focus on platform workers, current research on online labor platforms has been insensitive to the potential variations in how client firms perceive platforms, motivate their use, and re-organize their internal structures, processes, and operations accordingly. Such treatment of the client firm as a black box becomes increasingly problematic, in particular in view of a substantial portion of clients today being larger corporations, including some of the world's largest firms. This paper advances sociological understanding of technology and the changing nature of work and organizing in the digital platform economy, by examining why firms adopt online labor platforms and what implications this holds for organizing high-skilled knowledge work.

We connect the literature on online labor platforms to labor externalization literature, and examine empirically why some firms explore platforms as part of their external workforce strategy but decide not to adopt them, while other firms adopt them and reconfigure parts of their organizations in the process. We argue that since platforms have partly replaced human-based services of labor market intermediaries (e.g., staffing agencies) with artificial intelligence and algorithms, successful adoption seems to depend more on the ability of client firms to restructure their operating procedures to the socio-technical infrastructure of the platform. Based on our qualitative comparative case study of 24 mostly Fortune 500 firms, we outline a theoretical framework of how platform adoption may engender different organizational models for external knowlede work. The framework is illustrated by discussing why and how adoption of the same online labor platform was considered by 24 firms and resulted in the re-organization of externalized knowledge work according to four models. Case companies in each model held notably different perceptions of online labor platforms, had different motivations for using the platform, as well as confronted different organizational challenges. Further, rather than seeing platform sourcing as a perfect substitute to either the focal firm or existing contingent work solutions, we conceptualize platform sourcing as a third 'in-between' layer – sitting between the focal firm and its external sourcing partners – that empowers and enables team leads and managers on the work floor to on-demand expand or contract their teams, according to skill and just-in-time requirements. However, doing so successfully depends on how firms have (re-) organized and made investments in structuring the interface with the platform.

The data thus suggests that in order to understand how online labor platforms are changing the nature and organization of work, researchers may need to consider how platform sourcing is perceived and incorporated in practice. We discuss the implications of these findings for management literature on technology related organizational change and the future of work an organzing.

Keywords

digital platform economy; knowledge work; organizational design

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18.09

THE INCREASING HETEROGENEITY WITHIN PLATFORM WORK – ONE SIZE DOES NOT FIT ALL

Irene Mandl

European Foundation for the Improvement of Living and Working Conditions, Dublin, Ireland

Platform work – the matching of supply of and demand for paid work through online platforms – has emerged in Europe about a decade ago. While this employment form is still small in scale, it has been observed to be dynamically developing. This results in an increasing diversity within platform work as regards the characteristics of platforms and their business models, of clients and workers and the tasks commissioned through platforms. Against the background of a growing public and policy debate on the impact of platform work on employment and working conditions as well as regarding the suitability of existing regulatory and institutional frameworks, this heterogeneity should be considered for better informed policy making.

Based on the hypothesis that different types of platform work have different effects on the affected workers and the labour market, the author developed a typology of platform work. Considering five key elements – scale of tasks, skills level required to conduct the tasks, format of service provision (local vs. online), form of matching (contest vs. offer), selector to assign the task (platform vs. client vs. worker) – and drawing on existing secondary data, 10 distinct types of platform work have been found to be operational in Europe as of 2017. These 10 types cover about 98% of all platform workers and 75% of the platforms in the EU.

Of these 10 types, 4 have been selected to explore their employment and working conditions:

- On-location platform-determined routine work covers low-skilled work that is delivered in person and assigned to the worker by the platform (e.g. Uber).
- On-location worker-initiated moderately skilled work covers low- to medium-skilled work selected and delivered in person by the worker (e.g. ListMinut).
- On-location client-determined moderately skilled work covers low- to medium skilled work assigned to the worker by the client and delivered in person (e.g. Oferia).
- Online contestant specialist work is highly-skilled online work where the client selects the worker through a contest.

The research was conducted through half-standardised qualitative interviews with a total of 56 platform workers in 2018. Topics covered include

- Profile of the platform workers
- Motivation of the workers to engage in the specific type of platform work
- Employment status and access to social protection
- Autonomy and control
- Earnings and taxation
- Work intensity and working time quality
- Physical environment and health and safety
- Social environment and relationships with the platform, clients, workers, family and friends
- Skills and training
- Prospects and career development
- Representation

The findings are supplemented by a literature review of about 200 research and policy publications on the topic and show important differences as regards the positive and negative effects of the individual forms of platform work at micro and macro level (i.e. the individual worker and the overall labour market).

A second part of the study explored the actors involved and topics discussed in the public debate on platform work in 18 Member States of the European Union (for the remaining 10 countries, platform work was deemed to be of very limited to no importance). Furthermore, the regulatory and institutional frameworks of platform work in those countries have been investigated (e.g. employment status, social protection or taxation of platform workers, litigation, representative bodies of platform workers and platforms). In this context, also a comparatively wide range of initiatives established by various types of stakeholders to tackle the identified challenges related to platform work have been identified and can be used to illustrate operational approaches for potential solutions.

Finally, the findings of both parts have been compiled and contrasted, to derive specific policy pointers addressed at policy makers at EU or national level, social partners and/or platforms that should be considered for ensuring decent employment and working conditions for platform workers and a level playing field in terms of fair competition in the European (platform) economy.

Keywords

platform work; working conditions; regulatory frameworks

18.10

TOWARDS UNDERSTANDING ACADEMIA AND DIGITALISATION IN THEIR RELATIONSHIP OF STRONG RELATIONALITY (WITH SOME NOTES ON RELATED 'ENTREPRENEURSHIP')

Seppo Poutanen

University of Turku, Turku, Finland

How to do research on digitalisation and entrepreneurship in their relationship with academia? This question is, as most of the good and interesting questions are, both quite banal and rather intriguing at the same time. If a person indeed needs models for doing such study, she can be referred to rapidly growing research libraries, journal article collections etc., where the named three key concepts are theorized and defined in numerous ways, as well as variously combined for the needs of versatile analyses of related empirical phenomena. Publication volumes are also increasing hugely because of the fact that research subjects in question cross the fields of business studies, organization studies, information systems science, science and technology studies, to name a few.

Intrigue can come into play when the question is taken as an invitation to rethink the matter more generally and in certain broadly holistic ways. This means to take as a starting point the view that digitalisation and e.g. entrepreneurship are not just "happening" in and to academia, but the relationship between the three is becoming mutually constitutive in ways qualitatively different from before.

To define my starting point a bit more precisely, the holistic basis now means the presumption that entrepreneurship, digitalisation and academia need to be analysed through a lense of strong relationality. This is to say that focus is put on i) the particular characteristics that entrepreneurship gets in contact with both digitalisation and academia; ii) how digitalisation becomes realized in involvement with the two; and iii) what is the nature of the kind of academia that is inseparable from both entrepreneurship and digitalisation.

In my presentation I start reformulating the key conception of strong relationality in the kind of general ontological manner that could open new insights into the relationship between digitalisation, academia and entrepreneurship, and enable novel and relevant research questions about them. The ontological viewpoint concerns the way the strong relationality should be understood to exist, but the analysis is not meant to be operating only at the abstract philosophical level. On the contrary, in one sense the goal is to approach the triad in its utter particularity and concreteness in order to make space for creative changes of perspective into the key matters.

With my holistic interest in what might be called concrete particulars, I base my discussion on sociomateriality, which, as theoretically vibrant though complex approach, has aroused growing interest among scholars of e.g. science and technology studies, information systems and organization studies during the last decade or so. In a kind of manifesto text for sociomateriality, Wanda J. Orlikowski specifies the need for a new viewpoint in this way: "[…] these insights (of organization studies – SP) are limited in large part because the field has traditionally overlooked the ways in which organizing is bound up with the material forms and spaces through which humans act and interact" (Orlikowski 2007, 1435; Orlikowski 2010; Orlikowski & Scott 2015).

Though I accept sociomateriality's basic angle for study of the things I am interested in, I actually think that sociomateriality in the explicated, well-known formulation does not fulfil its true radical potential. I will argue that reconceptualisation of 'sociomateriality' in the light of A. N. Whitehead's processual ontology (Whitehead 1978) could better catch the essential goal of the approach and also reject certain criticism often aimed at the Orlikowskian conception of sociomateriality. Implications of this reconceptualisation for research on the relationships between academia, digitalisation and entrepreneurship are elaborated in a preliminary way.

Keywords

academia, digitalisation, sociomateriality

18.11

CHASING THE JOB: SEEKING FREELANCE WORK ONLINE AND OFF

Steven Sawyer, JP Rancy, Alaina Caruso

Syracuse University, Syracuse, USA

We are focusing on how freelance workers find work and pursue two contributions. First, we seek to contribute to the discourse about gigs and work-finding online by providing empirical and conceptual insight into finding work through online platforms and job-searching sites like Upwork.com, Fiverr.com, LinkedIn.com, Indeed.com and others. As part of this we are specifically focused on how freelance workers present themselves across these sites and platforms. Second, we seek to better understand the ways in which freelance workers pursue new work balancing traditional weak-tie networking mechanisms of informal social contact with the opportunities of online job-searching cites and platforms (e.g., Bertram, 2016).

This work builds from and draws together three sources of insight. The first source of insight comes from the detailed, often sociological and econometric, analyses of the changes in labor market structures, disconnect between employers and employees, and the movement towards contingent work (e.g., Kalleberg, 2009; Friedman, 2014; Kalleberg, 2011; Petriglieri, Ashford, and Wrzesniewski, 2018). A second set of insights comes from the rapidly expanding scholarship focused on gig work – encompassing a range of utopian and dystopian analyses and debates on the size and growth of contingent work (e.g., Graham, Hjorth, and Lehdonvirta, 2017; Burtch, Carnahan, and Greenwood, 2018). The third source of insights come from the studies of contingent work, freelancing and gig-working that, together, highlighting how work, labor markets, and employer/employee relations are being mediated by digital platforms and personalized devices that place premiums on workers developing skills and knowledge beyond their profession or trade (e.g., Wajcman, 2017; Ticona, 2015; Sawyer, Crowston and Wigand, 2014). Together this collective works paint a picture of the steady movement away from strong and structured labor markets and employer/employee relationships that framed the workforce that began to change in the 1980s (slowly at first, rapidly of late), and the growth of mediated labor interactions that has moved increasingly online.

We focus on freelance workers (one of the largest job categories on LinkedIn.com, a jobs and work-oriented social media platform) because this represents a form of project-based or gig-work that is typically dependent on knowledge-based skills (so more than work or labor for hire). Freelance workers must be able to convey their skills and expertise, communicate competence, and demonstrate prior success in order to secure new work, making their job search more than simply availability, location and pricing (see Barley and Kunda, 2016; Spinnuzi, 2015).

To pursue insights and advance our contributions, we are gathering primary and secondary data. Primary data come via interviews with freelancers selected across age, gender and skill levels, drawing from a number of sources such as Reddit, LinkedIn and Upwork. Secondary data come from gathering data about freelance worker's profiles across online platforms (like Upwork, Fivver, Care.com, LinkedIn, Indeed.com and other sites).

Interim analysis makes clear that these online job-searching sites and platforms seek to serve as digital boundaries that help to shape the contingent-work labor market (see also Ticona, 2015; Ticona, Mateescu and Rosenblat, 2018). However, freelance workers see these as an ecosystem of job-hunting mechanisms that, combined with traditional informal networks, are creating new forms of hybrid job market/spaces. Like others, we also observe that a relatively small percentage of new work is secured through online platforms, though we also expect (as do our respondents) that this is likely to change over time, as workers and those seeking to hire workers, become more experienced online (e.g., Spinnuzi, 2015).

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Keywords

Freelance work, online platforms, finding work

18.12

PLATFORM WORK AS "FREE LABOUR": HUNGARIAN PLATFORM WORKERS INTERPRETATION OF THEIR WORK IN ACCOMMODATION SERVICES

Tibor T. Meszmann

Central European Labour Studies Institute, Bratislava, Slovakia. Working Group for Public Sociology "Helyzet", Budapest, Hungary

Since 2011, in Hungary, and especially in the capital of Budapest, the economic and social significance of work via platform companies increased significantly. Whereas some work platforms, especially Uber and AirbnB generated an increasing public attention, the very implications of digital platform companies for work and employment standards, and also extraction of free labour have remained unreflected in the broader society, but also among platform workers themselves. In order to understand this limited reflexivity, in this paper, I focus on self-interpretation and description of the economic activity of individuals who offer also their labour within the frame of "other accommodation services", via work platforms, mostly via AirBnB.

The paper is based on interviews with 15 platforms workers as well as analysis of closed group discussions in the social media, that were until now analysed from an industrial relations perspective (Meszmann 2018). These data allow me also to address the question of how platform workers describe in detail and interpret their everyday economic activity, including their assessment of the differences to jobs in the traditional economy, advantages and disadvantages of work via platforms, and also to identify main discoursive practices. The success of platform work is based on an increased exposure to global market forces of traditional sectors and an appeal of a transnational business environment for relatively well-off or skilled social groups. The emerging work platform economy in other accommodation services is shaped in a vivid Schumpeterian capitalist spirit with clear signs of accumulation and concentration. That is, there are new entrants with start-up ideas, the signs of capital driven concentration and standardization of short-term renting activities are increasingly visible. My analysis shows that platform workers understand their 'work' not only as an entrepreneurial activity, but they also undervalue their labour and/or they understand themselves as pioneering economic actors. Nevertheless, the necessary conditions for this sector to boom is the 'free labour' (Terranova 2004) of platform workers and work platform companies capable of attracting service providers.

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Keywords

platform work, self-interpretation of productive actors, Hungary

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19.01

DOES THE DIGITAL TRANSFORMATION OF THE LABOR MARKET FOSTER ATYPICAL FORMS OF EMPLOYMENT? FIRM-LEVEL EVIDENCE FROM GERMANY

Felix Lukowski[1], Myriam Baum[1], Didier Fouarge[2]

[1]Federal Institute for Vocational Education and Training (BIBB), Bonn, Germany. [2]Research Centre for Education and the Labour Market (ROA), Maastricht, Germany

The digital transformation of the economy leads to fundamental changes the dynamic and structures of the labor market. The skill-biased technological change approach and the polarization/upgrading thesis are subject to intense discussions (Arntz, Gregory, & Zierahn, 2016; Goos, Manning, & Salomons, 2009; Oesch & Rodriguez Menes, 2011). Automation and artificial intelligence rapidly change the working environment affecting the task composition of workers as well as skill demands (Acemoglu & Restrepo, 2018; David H Autor, 2015; David H. Autor, Levy, & Murnane, 2003). Moreover, modern communication and production technologies allow for more flexibility regarding time and place of work. On one hand, this can lead to more time for family and recreational activities supposedly helping to achieve a better work-life balance. On the other hand, the boundaries between work and leisure are becoming blurrier and that could induce an increase in the experienced level of stress. In addition, forms of employment as well as the employer-employee relationship are subject to major changes. New models such as employee sharing and crowd working challenge traditional forms of employment (Degryse, 2016) and – from a legal perspective – the question arises, at what point a firm should be considered as an employer with responsibilities and obligations towards employees (Prassl & Risak, 2015). Also the willingness to freelance largely depends on individual worker characteristics such as skill, tenure or family status (Bidwell & Briscoe, 2009) suggesting a distinction between workers who self-select into flexible working contracts and workers who are induced to do so. This paper tries to shed light on the relationship between technological progress and nonstandard employment contracts. For this purpose, firm-level data from Germany is examined and the following hypothesis is tested:

The introduction of digital technologies fosters precarious forms of employment.

Technological advancement allows for more flexible working arrangements. This leads to a decrease in standard employment contracts and less planning and financial security for employees. In addition, workers have less bargaining power in times of vanishing local boundaries of the workplace. For the multivariate analysis, a difference-in-differences (DiD) approach is applied. As an event, the introduction of new technologies is observed. Using propensity score matching, for every establishment introducing a new technology a counterfactual establishment is identified. Consequently, the influence on the development of the firm's qualification structure and the share of nonstandard employment contracts is observed. The dataset also contains information on firm characteristics, such as sector, number of employees and region, which are used as controls. Our preliminary results suggest that the introduction of new technologies leads to to an increase in precarious employment contracts. The increasing flexibility of the labor market comes at the cost of less job security as well as more temporary and part-time employment.

Keywords

D22 Firm Behavior: Empirical Analysis; J41 Labor Contracts;O33 Technological Change: Choices and Consequences

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19.02

DO OLD AND NEW LABOUR MARKET RISKS OVERLAP? AUTOMATION, OFFSHORABILITY, AND NON-STANDARD EMPLOYMENT

Miguel Malo[1], Begoña Cueto[2]

1University of Salamanca, Salamanca, Spain. [2]University of Oviedo , Oviedo, Spain

This research analyses whether automation and offshorability risks (considered as 'new risks' of the labour market) overlap with non-standard employment (an 'old' labour market risk).

There is a wide social worry about the employment impacts of the current technological change. Probably, the most prominent concern is about the

risk of automation of a huge amount of jobs. There are different available estimations about the future employment destruction related to automation. The highest estimation corresponds to Frey and Osborne (2017), who present calculations that almost half of all jobs in the United States (US) have a high risk of being replaced and lost by automation. Other authors decrease these numbers until 14 per cent in the European Union (Pouliakas, 2018) or the OECD (Nedelkoska and Quintini, 2018) or even 9 per cent for the OECD (Arntz et al, 2016).

Offshorability is another risk closely related to automation risks. Usually, the approach to the displacement of some activities or occupations to other countries is understood as exclusively related to globalisation. Although some firms move offshore as a whole, technological change allows fissuring the workplace and even an occupation in their different tasks (Weil, 2014). However, as Blinder and Krueger (2013) remark not only are offshorable jobs divisible in simple and routinizable tasks, but also a wide variety of complex tasks involving high levels of skill and human judgement thanks to the new information and communication technologies. In fact, for the case of the US, Blinder and Krueger (2013) estimate that around 25 per cent of US jobs are offshorable.

There is a literature on the effects of automation and offshorability, focusing on aggregates outcomes as polarisation of wages (Autor et al 2006, 2008) or productivity or the labour share (Autor and Salomons, 2018), and a nascent branch about the impacts on individual unemployment spells and post-unemployment effects on job quality (Schmidpeter and Winter-Ebmer, 2018). Both risks – automation and offshorability – have potential to eliminate and deeply transform many jobs in the next future across the world, affecting to the level and composition of aggregate employment. However, we do not know exactly if these 'new' labour market risks will affect to the same workers suffering the 'old' risk of precariousness linked to non-standard employment relationships. However, up to our knowledge, there is no systematic empirical evidence jointly analysing the 'new' risks related to technological change and offshoring and the 'old' risk of non-standard employment. The two most prominent estimations of automation risks (Frey and Osborne, 2017, and Arntz et al., 2016) do not even include variables related to contract type in their analyses.

In this article, the empirical analysis uses data from Spain. The Spanish case is interesting because this country has had a very high temporary employment rate since the mid-1980s (Toharia and Malo, 2000; Toharia, 2005). In fact, labour market segmentation by contract type has been a prominent feature of the Spanish labour market. Therefore, in Spain the expansion of non-standard employment developed before the current widespread of new technologies and a distinction of 'old' risks (associated to non-standard employment) and 'new' risks (linked to the expected impact of automation and offshorability) makes sense. The main database is the Labour Force Survey (LFS), from 2011 to 2017, which follows the Eurostat methodology and the international ILO definitions for all concepts related to employment, unemployment and inactivity. We will use a definition of non-standard employment based on the information provided by the LFS, mainly temporary and part-time, although we will also present an analysis for self-employment. For the automation and offshorability risks we use different sources. Following the international literature, we use two different definitions: one based on occupations (Frey and Osborne, 2017) and other based on tasks (Torrejón, 2018). We use both definitions because Frey and Osborne (2017) provide higher estimates for how many workers are under a high risk of automation (conventionally, a risk above 0.7), while task-based approaches provide much lower estimate of workers affected by a high risk of automation. For the offshorability risk, we use one of the indicators provided by Blinder and Krueger (2013), which is based on experts' opinions and according to the authors is more reliable than other two indicators they define using subjective information from interviewees.

Our main results show that automation risks affect more to those with non-standard work arrangements. However, higher educational level is crucial to be much less exposed to automation risks, irrespective of the type of contract or the working time (part-time or full-time). Conversely, the offshorability risk does not overlap with non-standard employment, and has the opposite relationship with the educational level. The results suggest that specific training policies attending to those with lower educational levels in non-standard employment would be advisable to protect these workers against automation risks.

Keywords

Non-standard employment - Automation risk - Offshorability

19.03

DUALIZATION OR NORMALISATION OF PART-TIME WORK IN FINLAND AND NORWAY: WORK INSECURITY AND MOBILITY OVER TIME

Jouko Nätti[1], Kristine Nergaard[2]

[1]Tampere University, Tampere, Finland. [2]Fafo, Oslo, Norway

In the paper we look at the development of part-time in two countries with strong labour market regulations (Nordic coordinated economies), but with different traditions for part-time work. Finland has low female part-time rate whereas part-time work is common among Norwegian women. We use

Labour Force Survey (LFS) data for empirically testing the development and characteristics of part-time work in the two countries.

The first aim of the paper is to examine the extent and characteristics of part-time work over time and in different subgroups of employees. Are there are still different working time patterns, or do we see a convergence across the countries? Results show that part-time work has increased among women in Finland, while decreased in Norway.

The second aim of this paper is to test the assumption of part-time jobs as "bad jobs" in the case of the well-regulated Nordic labour markets. On one hand, part-time jobs seem to be more insecure than full-time jobs especially in Finland. On the other hand, changes over time in the insecurity-difference between part-time and full-time workers are in both countries minor, i.e. we find no strong trend in the direction of more insecure part-time jobs.

The third aim of the paper is to examine mobility in part-time work and especially transitions from part-time to full-time work. Results indicate only minor changes over time, as did results on the changes in insecurity. Thus, our results do not give support for the polarisation between part-timers and full-timers in terms of insecurity or mobility.

Keywords

part-time work, insecurity, mobility

19.04

UNEMPLOYMENT EXPERTS: NEW FORMS OF PROFESSIONAL PRECARIOUS WORK

Patrick Sheehan

University of Texas, Ausitn, USA

Marc is 62 years old and a self-proclaimed "professional career changer." He left a twenty-two-year career at IBM in 1999, when the company, like so many firms at the time, cut back on his pension plan. He bounced between short-term tech jobs for the next decade at which time, he says, he inadvertently became an expert in career management - in finding new gigs, branding, and selling himself. In 2012, after multiple layoffs and a bad bike accident, Marc had the idea of marketing his newfound expertise. He reinvented himself once again, this time as a "career coach" that would help unemployed professionals navigate a tough job market via one-on-one consulting sessions covering everything from LinkedIn to mock interviews. Using a variety of digital tools – such as targeted online advertising and his own eBook - Marc has rebranded himself as a new kind of professional, an unemployment expert. Marc now coaches others to thrive in their careers, but the spotty income he earns doing so isn't enough to support his own career. Unable to afford health insurance in the US, Marc is in the process of moving to Mexico for health care (at least until his wife is old enough to be eligible for government-funded insurance, he says). He will continue to conduct his career coaching with US-based clients via Skype.

This paper examines a new kind of precarious professional, the unemployment expert, as a window into understanding the changing dynamics of precarious work today and their consequences. Unemployment experts are aspiring professional-experts that claim jurisdiction over the problem of unemployment and offer a variety of services to help workers manager their careers in difficult times. Drawing on ethnographic research conducted over a nine-month period and seventeen interviews, I analyze unemployment experts' claims to expertise and the challenges they face as they try to establish themselves as legitimate professionals.

Unemployment experts shed light on several important dimensions of precarious work today and their consequences. I highlight specifically how their age, previous professional status, and their technological abilities make this form of precarious work both similar to and different from other kinds of precarious work.

First, the majority of unemployment experts are older workers (at least in their 50s) that turned to this work when they were laid off from previous professional jobs. In the US, precarious work for older middle-class professionals has particular consequences for workers' health and family finances. With government-provided health insurance unavailable until age 65, many unemployment experts are stranded uninsured during crucial health care years. Similarly, the soaring cost of higher education makes it increasingly difficult for these precarious workers to pay their children's college tuition (previously an expectation for middle-class families) leading their children to take on more debt.

Second, I find that unemployment experts distinguish themselves from other kinds of precarious workers by leveraging their digital and technological acumen to promote themselves, advertise their services, find clients, and perform their services. As opposed to precarious work organized and

performed via platform technologies like Uber, unemployment experts draw on a wider range of digital tools: they develop their own online brands via various forms of social media and networking such as LinkedIn, they film, develop, and sell webinars packages, they launch podcasts, and much more. In this way, these aspiring professional precarious workers distinguish themselves from low-skill precarious workers: as professional experts in a knowledge economy they maintain at least the appearance of greater autonomy over their practice.

Despite these distinctions, however, I find that unemployment experts share much in common with low-skill precarious workers. Unemployment experts by and large are not able to secure middle-class income or stability through self-employment. Most leverage their relative privileges – leaning on working spouses or savings and retirement accounts – to support their entrepreneurial efforts. Many, like Marc, are still struggling to maintain middle-class lifestyles as they piece together this new kind of expert gig work.

In conclusion, this paper examines unemployment experts as a window into an emerging form of precarious work for older professional workers, explores the consequences of this kind of work on workers' health and family finances, and considers the ways in which it is similar and different from other kinds of precarious work.

Keywords

precarity, professions, unemployment

19.05

DISAPPEARING JOBS: EVIDENCE FROM LABOUR PROCESS CHANGES IN HUNGARIAN AUTOMOTIVES

Tibor T. Meszmann

Central European Labour Studies Institue, Bratislava, Slovakia. Working Group for Public Sociology "Helyzet", Budapest, Hungary

Among the countries at the European Union's periphery, former state socialist Hungary stands out as a location for major reindustrialization during and after the so-called global economic crisis (2008-2012). Since then, there was a major relocation of German automotive multinational companies' (MNC) plants and its suppliers to some Hungarian regions, causing also major changes in local employment and industrial relations. While we can observe a systematic attack against already shaken system of industrial relations and social dialogue and labour law that is cemented in national labour code and rather symbolic social partnership system, collective regulation shrank in best cases on workplace level of the privileged few, mostly to original equipment manufacturers. However, even in these companies and its suppliers there is a visible intensification of workload. Thus, my argument is that even in these companies, employment relations and jobs are becoming precarious or "disappearing" due to a dual, external and internal reason. The external reason is the labour shortage and accompanying labour turnover in automotive plants, that make jobs more intensive for core workers. The internal, intensive reason is the adoption of extreme flexible hybrid variants of Toyotist work organisation, along with implementation of industry 4.0 brings to redefinition of jobs , with the continuous outcome of increased workload and fewer jobs.

The paper utilizes concepts of regulation theory, such as uneven development as well labour process theory to provide an account in development in industrial and employment relations in selected plants in Hungarian automotives in the last decades. The paper then draws on analysis of trade union and worker interviews on experienced changes in employment relation and changes in jobs in the region of Southern Hungary, a site of major greenfield investment of automotive companies in the period since 2010.

Keywords

automotives, employment relation, precarious work

20.01

THE INDUSTRIAL ETHOS AND WIDER SKILLS CONCEPTIONS

Esa Jokinen, Pasi Pyöriä, Satu Ojala

University of Tampere, Work Research Centre, Tampere, Finland

The prevalent narrative tells that significant change is upon us in terms of the skills requirements of working life. This is reflected not only in the academic debate but also in the future skills anticipation projects conducted by the European Union and its member states. However, while some insist that the skills requirements are constantly increasing, others claim that more importantly, there is deskilling due to the technology taking over jobs. The evidence is far from comprehensive. Hence, the traditional concept of skill is utterly blurred and provides no more basis for understanding the essential changes of work, employment and industries' needs (cf. Green 2011).

In this presentation we concentrate on two things. First, we explore the concept and phenomenon of wider skills in the context of industrial sector (chemistry, metal, and forest industries). We consider skills on the levels of companies, development systems, and social systems. On all these levels there is the aim to create a balanced work force which is 1) productive, 2) capable of development, and 3) socially integrated (Green 2011). Hence, the "wider" not only means increasing requirements but also the emergence of more sophisticated interpretation of the nature of these requirements and their consequences, e.g. for the human resource development.

We use the interviews of the representatives of employers and of employees in iundustrial sectors. On the basis of the thematic analysis of about hour-long interviews (N=12), it it clear that the skills requirements have dramatically altered during the last three decades. These changes are partially understood through a sort of universal explanations including the changes in the personnel structures, reallocation of jobs among different levels of expertise, technological development and automatisation, as well as cyclical and structural economic trends and globalization. During their careers, the work force is expected to engage in learning new skills, in local and global interaction, and to adapt to more rapid changes like restrutcuration and to the introduction of new technologies. However, these common and widely debated phenomena are not the only nor the most important sources of change.

Hence, second, we take a more detailed look at the sectoral characteristics which seem to be important in shaping and moderating the conceptions of skilled work force. Our analysis demonstrates some areas which have been neglected in the skills debate:
A) The sectors are in a more or less constant flux, which is reflected in the pronouncing of some skills or worker types with the expense of others, and this wave motion is not necessarily progressing anywhere by any "outside" measure.

B) There is a distinguishable ethos, understood as a characteristic way of thinking or belief, in each sector, that links the sectoral business logic and the skills needed in the sector. This ethos is essential part of the wider skills that are difficult to explicate. There is still – maybe more than ever – a need to foster the socialization process of professionals and to support their identities, but there seems to be many obstacles relating to the use of time, superior support, and opportunities for social interaction.

C) In addition, the analysis brings forward the unique industrial innovation chains but also the element of randomness. The logic of gambling is involved in the sectoral ethos when considered investments in skills in an unpredictable business environment. This, too, should be considered as shaping the skills conceptions.

On the basis of the analysis, we draw conclusions and consider practical implications on the nature of changes in skills requirements in the industrial sector. The presentation is part of the project Fragmented work careers? funded by the Finnish Work Environment Fund (2018–2020, research.uta.fi/tyourat).

Keywords

skills, labour market, industry sectors

20.02

‘HYBRID PROFESSIONALS’ AS CHANGE AGENTS IN THE DIGITAL TRANSITION OF HEALTH CARE

Sari Käpykangas[1], Eveliina Saari[2], Mervi Hasu[3]

[1]Finnish Institute of Occupational Health, Tampere, Finland. [2]Finnish Institute of Occupational Health, Helsinki, Finland. [3]University of Oslo, Oslo, Norway

INTRODUCTION

Recent disruptions to the traditional ways of organizing work, caused by digital technologies and business models, are now impacting the work and competencies of people across the occupation spectrum. The implementation of digital technology is thus also transforming work in the social and health care sector. Moreover, it is also affecting the ways in which professionals carry out their work roles as they become implementers of digital change in increasingly multilevel and hybrid changing environments.

Our empirical analysis illustrates how professionals at different organizational levels implement digitalization in social and health care. We utilize the concepts of human agency and organizational citizenship behavior as theoretical frameworks to understand how practitioners and their different complementary roles carry out technological change.

DATA AND METHODS

The case study is conducted in a Finnish social and health care district that is considered as a national forerunner in organizing social and health care services. The region is currently increasing its e-services and implementing a new digital strategy.

We collected the qualitative data on ‘hybrid professionals’ in spring 2017. This consisted of 16 interviews and ethnographic observations, which were audio-recorded and transcribed, in a field report, respectively.

THEORETICAL FRAMEWORK

We use a theoretical framework that understands professional competence as a form of dynamic interaction between agency, relationship, and institutional and technological environments. The practitioner is confined by his or her institutional environment, but at the same time has the opportunity to change or question their circumstances. We call this agentic professional competence (Saari & al. 2019).

From the previous theoretical literature conceptualizing human agency we identified four important elements to be included in the analysis to clarify how both individual and collective agency are intertwined with professional competence. These are 1) reflexivity and the temporal orientation of the professional, 2) relationships with other people, 3) sensitivity to social position and power asymmetries and 4) institutional and material arrangements.

EXPECTED RESULTS

The development of a digitalized service environment is a complex change process which requires the implementation of digital interfaces and functional changes to work processes. Our analysis reveals that this collective effort is conducted through collaboration between multiple roles, forming a kind of collective change agency in an organization.

Although professionals’ organizational position, their viewpoints towards change, and their professional competences and agency seem to vary, they complement each other. Based on their attitudes towards digitalization, their positions in the organization and the descriptions of their work, we classified the professionals into four main types: 1) visionary managers, 2) ICT experts and demanding in-house purchasers of ICT systems, 3) service change agents and coordinators, and 4) implementers of technologies in homes and offices.

Visionary managers are responsible for the implementation of digital strategy. Their role is to lead professionals and ensure that they work according to strategy. They have a close relationship with key professional groups. They act as enablers, channeling operations towards the future.

The role of ICT experts and demanding in-house purchasers of ICT systems is close to that of top management. They support organizational digital strategy by making practical decisions about its implementation. They are characterized by innovativeness and enthusiasm for new technological opportunities.

The service change agent and coordinator role represents a temporary position and a role nominated by top management. Officially their role is to implement the technologically oriented vision of health care as a human-centered caring culture in specific service areas in the social and health care district.

Implementers of technologies in homes and offices represent a new role that involves work tasks carried out under project worker status. Their knowledge is based on their previous experience in practical care work. Their role is to help users adopt digitalization and broaden its use. They work with two interfaces in relation to customers and technology suppliers.

DISCUSSION

We ponder how the combination of roles complement each other, and what kinds of tensions and relations they contain when they simultaneously try to consider the culture of care and the efficiency visions of digitalization. In addition, we discuss how our analysis is related to the concept of organizational citizenship behavior (Organ 1988). Organizational citizenship behavior approaches professionalism through feature categories. The concept is linked to the organization, its operating environment and the social processes that support its goals. We contribute to the discussion on organizational change agents by shedding light on the hybridity of collective agency in increasingly complex technological environments.

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Keywords

agency, competence, digitalization

20.03

WORK PARTICIPATION TRAJECTORIES BEFORE ENTERING A NATIONWIDE VOCATIONAL TRAINING PROGRAMME

Taina Leinonen, Svetlana Solovieva, Eira Viikari-Juntura

Finnish Institute of Occupational Health, Helsinki, Finland

Introduction: Active labour market programmes such as training or subsidized employment have a high potential to increase employment participation. However, individuals enter vocational training from different sociodemographic and labour market backgrounds, which may influence the effectiveness of the interventions. We identified typical work participation trajectories over two years before individuals entered a nationwide vocational training programme. We will examine the association of the pre-training work participation trajectories with sociodemographic factors and work disability histories as well as with further post-training work participation outcomes.

Methods: We used a representative sample of the working-age population living in Finland at the end of 2007. The register-based data includes both retrospective and prospective information on sociodemographic factors, benefit receipt, and employment participation for individuals in the sample, covering the calendar years 1997–2014. Using data on 15720 individuals who started their first programme of vocational training in 2007 at age 20–54, we examined the characteristics of the participants and constructed latent trajectory groups of work participation over two years before the start day of training.

Results: The mean age of the individuals starting vocational training in 2007 was 35.8 years. The gender distribution was very even. Only one fifth had tertiary education, and at the end of 2006, one fourth were employed in manual work and about half were unemployed or otherwise non-employed. However, 95% had had at least one unemployment episode at some point over the measurement history. Over half had participated in other previous active labour market programmes before the start of their vocational training. We identified four trajectories of work participation before vocational training. The first group (27.1%) had an initial high level of work participation, which over the half-year period immediately before training declined to a medium level. Among the second group (19.7%), work participation was also at a high initial level, but it started to decline already over 1.5 years before training and ultimately reached a negligible level. The third group (13.5%) had an initial low level of work participation, which increased over time to a relatively high level, until over the half-year period immediately before training it rapidly declined back to a low level. Among the fourth group (39.7%), work participation was constantly at a negligible level. In the next stage of the analyses we will examine which sociodemographic factors and work disability histories are associated with particular work participation trajectories before vocational training. We will also explore how these pre-training circumstances are associated with post-training work participation outcomes.

Conclusions: We found that the work participation trajectories before entering vocational training are diverse, which should be taken into account when

assessing pathways into the programmes as well as when examining post-training outcomes. Because of this diversity, understanding the pathways to vocational training is very important for future studies aiming to find proper controls for the training participants when setting up effectiveness studies.

Keywords

active labour market programme, employment, sociodemographic factors

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20.04

CLIENT-CENTERED COUNSELLING IN VIRTUAL SETTINGS – PROFESSIONAL MASTER'S DEGREE STUDENTS' PERCEPTIONS OF HOW DIGITALIZATION CHANGES COUNSELLING IN HEALTH AND SOCIAL CARE SECTOR

Piia Silvennoinen, Outi Ahonen, Ossi Salin

Laurea UAS, Vantaa, Finland

The ongoing health and social services reform in Finland calls for renewal and updating of the professional skills and competencies of its professionals. The aim of the reform is to reduce inequalities in health and wellbeing, to improve the equity of services and the accessibility of the services as well as curb the increase of costs (Alueuudistus 2018). One of the key strategies in achieving the goals of the reform is to increase the provision of health care and social services via digitalized means. The competency in digitalization is one of the key competencies that needs to be updated, since health care and social services professionals lack the appropriate competencies in and skills of digitalization needed in digitalized working life and society (2006/962 / EC). The digitalization of the work in health and social care sector changes how the work is performed among co-workers, clients and patients alike. Another central strategy of the reform is the reorganization and provision of social and health care services in a client-centered manner. Thus, the professionals need to possess both client-centered counselling skills and online counselling skills. The presentation describes the main results of the teaching experiment carried out with 18 health care and social services Master's Degree students in 2018. The aim of the teaching experiment was to provide the students with client-centered online counselling skills. During the course named "Online counselling", the students learned how the method of motivational interviewing combined with a solution-focused counselling approach is applicable in online settings. The students had learned the basics of motivational interviewing (MI) and solution-focused counselling in their previous studies. The method of motivational interviewing is a client-centered method that emphasizes the expertise of the client in decision-making. In the teaching experiment, the students were taught how to apply motivational interviewing and solution-focused counselling in online counselling by using simulation pedagogy. The data in the study consisted of students' learning diaries. The results show that simulation pedagogy is suitable for studying online counselling. Moreover, the results highlight the students' awareness of the impacts of digitalization on their work. In addition, it shows that the students are willing to renew and update their skills and competencies in accordance with the needs of working life.

Keywords

online counselling, simulation pedagogy, lifelong learning

20.05

EDUCATORS AS DESIGNERS OF LEARNING ENVIRONMENTS IN ENTREPRENEURSHIP EDUCATION

Sanna Ilonen

University of Turku, Turku, Finland

The essence of entrepreneurship education (EE) is teaching and learning of entrepreneurship. Especially in higher education, educators are often given free hands in designing the learning environments. This is a challenging task since entrepreneurship educators are often lacking educational

expertise (Fayolle & Gailly, 2008) and they are balancing between academic and entrepreneurial values i.e. they are challenged how to meet the rigors of academia while keeping a reality-based focus in education. Despite of the remarkable role of educators as designers and facilitators of learning the literature from educators' perspective has been on minority (Neck & Corbett, 2018). In a response to this, this study examines how principles of designing learning environments that facilitate learning (Vosniadou et al., 2001) are present in EE by systematically reviewing learning environment literature and further investigating it in an empirical context in "for" EE in higher education from educators perspective. The contribution of the study is thus twofold; it structures the literature and brings practice of learning environment design visible.

Learning environment refers to a learning setting in which students learn. It consist of physical places, virtual and digital elements, social and cultural aspects and pedagogical choices, learning philosophies and curriculum related aspects. (Frenzel et al., 2007; Veermans & Murtonen, 2017.) Based on decades work, cognitive science researchers have reached a consensus on some similarities in learning environments that facilitate student learning especially well. On grounds of this discussion, Vosniadou and the colleagues (2001) have structured four principles of designing learning environments that facilitate learning. In order to understand how learning environment is perceived and described in EE literature, systematic literature review was conducted. First, keywords "ent* edu*" OR "ent* learn*" OR "ent* environ*" AND "higher edu*" or "univ*" appearing in article titles, abstracts, or keywords from the ABS medium- and high-ranking entrepreneurship journals from the Scopus database were searched. This resulted 114 articles, which were thereafter assessed regarding the introduction and discussion sections. In total, 39 articles formed the data of the literature review. The findings of the literature review demonstrate that active learning and high self-regulation (principle1) the relevance and meaningfulness of educational tasks (principle2) are vastly discussed in the literature. Learning as a social affair (principle3) has been somewhat noted in EE literature. The discussion on individual differences (principle4) has become increasingly important although not received as much attention than other principles.

In order to further investigating appearance of the principles in an empirical context, interviews of two educators' who ran together multidisciplinary "for" entrepreneurship course and in gathering documentary data from the course planning materials were applied. The studied educational context was a non-compulsory, practice-based bachelor-level 'Startup' course where the students had to ideate, validate, launch and run a new business in multidisciplinary teams. The course was organised jointly among three higher education institutions. Educator1 [E1] and Educator2 [E2], were interviewed with the use of semi-structured interviews. E1 worked as a researcher in a business school whereas E2 worked as a lecturer in arts management in a polytechnic. E2 had a vast overall teaching experince and pedagogical qualifications, while E1 had gained his teaching experience from this particular course (5 years). E2 had recently joined the teaching team of this course.

The empirical findings demonstrate that active learning and high self-regulation are embraced in EE practice. Interestingly, the rationale for this does not focus exact into the content matters (entrepreneurship), but more broadly on workinglife skills, motivation towards learning and heavily on how learning environments are designed in previous years (reproduction, see Farny et al., 2016). In addition, metacognition and reflection are embraced in the current literature, but remain unpractised in practice. Practice of designing relevant and meaningful educational tasks seems to follow ill-defined and chaotic nature (see Solomon et al., 2007) rather than careful planning and building upon a specific ontological and pedagogical hypothesis (Pittaway and Hannon, 2008). Educators were very willing to keep courses "lively" and not to plan meeting session activities strictly. Importance of learning as a social affair has been somewhat noted in EE literature and practice. Team work/collaborative learning are interpreted as something naturally 'good' – and not considered as a possible substantial issue, although the educators have noted that team issues can lead to course dropouts. Individual differences are described and noted as something good for team work but not widely taken into consideration in the learning environment design. An interesting question is, that when educating problem-solvers for employment markets (as described by educators) should the differences be taken into consideration (and to what extend)? The study also sheds light into practice of team teaching. The level of responsibility and/or activeness are not always equal. Without open discussion on learning environment design, responsibility may become too burdensome for some, in this case for E1, while suggestions of others may be unheard, in this case for E2.

Keywords

entrepreneurship education, learning environment, educator, higher education

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21.01

LACK OF SALES KNOW-HOW IN FINNISH SMES - PRELIMINARY INSIGHTS

Mirja Väänänen[1], Riitta Forsten-Astikainen[1], Eeva-Liisa Oikarinen[2]

[1]University of Oulu, Kerttu Saalasti Institute, MicroENTRE research team, Oulu, Finland. [2]University of Oulu, Oulu Business School, Oulu, Finland

Introduction

Management of sales know-how creates one of the pillars of firm´s success and growth, enables productivity and effectiveness (Fisher 2012). Sales

functions´ management is a fundamental for company's growth and sales should be seen as an important strategic business process. Ideally, the entire company staff understand the sales process and communicate similarly to the customer. Parvinen et al. (2013) state that there is a need for more research on systematizing sales and its impact on firms' productivity. In this paper we apply a systemized maturity model approach to analyze Finnish SME's sales capability. A research question is formed as how sales capability models can be applied and developed to evaluate microentrepreneur's sales competence. The study contributes by offering a new empirical approach – a Likert-scale sales capability assessment tool – in microentrepreneurial context.

Special features of sales people

The seller has different means and tactics to influence in an interactive purchase situation to make a purchase decision (influence tactics). These depend on, among other things, a style of communication that can be roughly divided into task, interaction, and person-oriented interaction (Sheth 1975; McFarland et al. 2006). Which tactic is most effective depends on, for example, the personal characteristics and tactics of the seller, the product and the sales situation. In sales peoples training, it should therefore be noted that copying of a particular form of communication to all customers is not worthwhile, but vendors should learn to apply different ways in different sales situations. (Plouffe et al. 2014).

Sales & Operations Planning maturity

Business processes capability can be assessed and developed utilizing maturity models. Maturity models have originally been applied into project management processes (Paulk 1997) but also into Sales and Operations Planning processes (S&OP). S&OP integrates company's supply, operations and sales functions enabling smooth customer service (Thome et al 2012). Central matters in successful S&OP includes creating mutual understanding of the goals and objectives by information sharing and joint meetings between the different functions (Rangarajan et al 2018). S&OP includes both managerial (formal instructions, information management, performance) and leadership (cooperation, commitment, shared culture) viewpoints (Tuomikangas & Kaipia 2014).

Several researches have contributed concerning S&OP maturity models (see for example Lapide 2005, Pedroso et al 2017). Typically, the models include from two to six dimensions (e.g. process performance, people and organization, metrics, information management) and from four to six maturity levels that indicate how well the process dimensions are considered in the organization. At the low levels of maturity there are hardly any guidelines or process descriptions for personnel to perform their job, and the company may seem satisfied to the situation. At the middle levels an understanding of the need for more systemized management approach arises. In the higher levels of maturity the systemized management approach involves all the company functions integrating also suppliers' and customers' smoothly to the processes. The higher the level the more there is need on the emphasis on leadership, people and organizational viewpoints (Danese et al 2017).

Only limited number of earlier S&OP maturity research utilize Likert-scale in their research instruments (Wagner et al 2014, Vereecke et al 2018), thus, we wanted to test its usability in this context.

Data and analysis

The data were collected from managers working in 23 micro and small companies with different sectors and representing new and older companies.

A Likert-scale (a five-point) questionnaire included four dimensions of S&OP maturity models: A Process management (AVE 3,5; SD 0,6), B People and organization (AVE 3,7; SD 0,62), C Customer acquisition, management and communication divided further into how to communicate with customers (AVE 2,86; SD 1,01) and how to use customer data (AVE 3,01; SD 0,92), and D Information management and metrics (AVE 3,30; SD 0,87). Each dimension included from 4 to 10 items whose average values varied quite a lot, for example, in the dimension People and organization the lowest item average value was 2,74 and the highest 4,22.

Preliminary results

The dimensions of S&OP maturity model which had the lowest level of maturity were Customer acquisition, management and communication. The results suggest that the maturity of the different dimensions may differ significantly. For a company it is important to reveal and improve the weak dimensions. Among the Finnish micro- and small companies there is a special need to improve customer communication and abilities how to use customer data. How well capability maturity models suite microentrepreneurial context needs critical inspection. For example, compared to middle-sized companies, microentrepreneurs do not have the same resources for utilizing current information management and metrics tools. In addition, it is important to further analyze the internal validity of each scale-dimensions and focus on the scale-development.

Keywords

Sales, capability, maturity, microentrepreneurship

21.02

ELDERLY ENTREPRENEURS CHALLENGING THEORIES AND UNDERSTANDING OF WORKING LIFE, AGE AND ENTREPRENEURSHIP.

Elisabeth Sundin[1], **Elin Vadelius**[2]

[1]Business Administration, Linköping, Sweden. [2]Sociology, Karlstad, Sweden

Aim of the paper

This paper concern older citizens on the labor market, including self-employed. The questions in focus are whether the incitements for going into self-employment vary with age and, if so, if and how the working conditions in existing organisations is behind these differences.

Key concepts

Entrepreneurship and old age in constellations like older employees or older entrepreneurs Elderly entrepreneurs challenging theories and understanding of working life, age and entrepreneurship.

needs to be specified. We will use “entrepreneur” and “self-employed” as synonyms and following from that “entrepreneurship” and “starting an enterprise” as synonyms.

Age, old age and elderly are more context-specific and demands situated discussions. This will be done in the paper in connection to the presentation of the empirical examples and in connection to the discussion and conclusions.

Background and context

The phenomena discussed in the paper are general and international. The concrete outcomes are however related to the context that is Sweden in the second decade of the 2000-century. Dimensions we find of special importance will be explicitly referred to in the paper.

There is an expressed political demand on individuals staying long in working life. The statement from the former Swedish prime minister Fredrik Reinfeldt that “75 is an eligible age to retire” is often cited. The undertone is that the decision is up to the individuals – they should be convinced to stay on. This is a problematic understanding as many studies from working life shows that older individuals are discriminated in working life – both when applying for a job and at the workplace in organizations. Older employees are consequently exposed to contradicting messages.

Entrepreneurship and increasing entrepreneurship is another expressed political demand. The arguments are numerous referring to all levels – both individual. meso- and macrolevel. Both politicians and researchers have been interested in the incitements for individuals and the construction of infrastructure to facilitate entrepreneurship. This interest is international and comparisons are often done. Some characteristics seem to be “eternal and global” while other vary over time and space. The reasons for starting a business is often presented in two groups – pull- and push factors. The Swedish new-starters seem, in an international perspective, to be distinctly pull-driven, more so than in many other countries. This may be explained by a welfare system taking a public responsibility for the basic needs for vulnerable citizens like children and elderly.

Empirical base for the paper

From our own studies done with quantitative methods we get strong indications of the importance of age, especially age connected to retirement, for the decisions to go from employment to self-employment. Connections between employment and self-employment/entrepreneurship is often, almost always, a fact but surprisingly seldom an issue in entrepreneurship research. In this paper we focus this relation.

From official statistics we know that choice of industry varies over age (and gender). From our own studies made with qualitative methods, mainly interviews, we get examples of that the working conditions at the work place, at the employer the individuals had before going to self-employment, is crucial for the decision. “Working conditions” is an expression that contain diverse situations, relations and circumstances. In the paper we present a number of expressions and construct a model for classification that serves as a start for theoretical elaborations. The basis for the classification are both attributes and actions of the former employer and the reactions and qualifications of the individuals. The descriptions, analyses and discussion will be done with an open mind toward external influences. The theoretical connections touches and affect theories and understandings from the field of entrepreneurship and elderly in working life.

Keywords

elderly; entrepreneurs; organizations

21.03

ENTREPRENEUR´S BRIDGE-EMPLOYMENT PROCESSES AND THE MOTIVES FOR BRIDGING

Anu Järvensivu[1,2], Monika von Bonsdorff[2]

[1]University of Jyväskylä, Jyväskylä, Finland. [2]University of Vaasa, Kokkola, Finland

Our study focuses on the retirement processes of entrepreneurs. By entrepreneurs, we mean individuals who organize or operate a business and are usually sole proprietors, partners, or the ones who own the majority of shares in an incorporated venture (Carlan, Hoy & Carlan, 1988). The number of aging and retiring entrepreneurs in micro and small size companies, i.e. companies employing 10 or fewer individuals (European Union, 2013), is rapidly increasing in the Western countries. Furthermore, entrepreneurship is globally an important form of employment. Specifically, according to U.S. Bureau of Labor Statistics 2015, more than 10% of the total U.S. employment is in self-employment, either in incorporated or unincorporated businesses (Hipple & Hammond, 2016).

There is a cap of knowledge within a field of entrepreneurship studies regarding how entrepreneurs end their careers and ultimately exit working life. Very few studies have examined and provided insights about retirement of entrepreneurs (Morris et al. 2018). Compared to wage-and-salary employees, entrepreneurs or self-employed are more likely to continue to work longer and withdraw later from their companies (Cahill, Giandrea, & Quinn, 2013; Zissimopoulos & Karoly, 2009). In general, entrepreneur exit has received less attention compared to the startup phase, entry in the market, growth and innovation (e.g. DeTienne & Cardon 2012).

The study of Morris et al. (2018) suggests that retirement of entrepreneurs has a number of unique characteristics; most notably retirement is something they often resist or avoid. Negative beliefs surrounding retirement are fostered by a strong entrepreneurial identity. The research shows that some sort of partial retirement is typical for entrepreneurs. A majority (74 %) of the respondents of their study reported that they intend to pursue a partial retirement model. (Morris et al. 2018.)

Work and jobs that follow full-time career employment and precede complete labour force withdrawal are generally known as bridge jobs. There are many different criteria to full-time job and retirement and the definition of the bridge-job is unclear, too (Cahill et al. 2018). Beehr & Bennet (2014) have proposed a taxonomy of 16 forms of bridge jobs.

Wang & Schultz (2010) have stated that future research needs to explore in detail the actual bridge employment process and provide a more comprehensive evaluation on its form and functions. In our study, we take a closer look on the bridge employment processes of the entrepreneurs. In our previous study, we have noticed that the linear model of bridge employment (Cahill et al. 2006) doesn´t fit very well on the entrepreneurs, because they can have many overlapping jobs, firms, duties or old-age benefits that don´t start or stop simultaneously (Järvensivu & von Bonsdorff 2018). In this presentation, we will continue by describing the bridge employment processes more closely. We ask what kind of forms of bridge jobs entrepreneurs have and what are the motives behind them.

Our research material consists of narrative stories, written by seven entrepreneurs in the spring of 2018. We analysed the writings by content analysis. The results show the heterogeneity of the bridge jobs and the variety of motives behind continuing to work. Our study contributes to the literature of bridge employment and retirement processes of entrepreneurs.

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Keywords

entrepreneur, bridge-employment, motives

21.04

COPING WITH ADVERSITIES AND FAILURE AS A STARTUP ENTREPRENEUR

Henri Koskinen

University of Turku, Turku, Finland

In this paper, I examine how aspiring startup entrepreneurs are guided to cope with issues of adversities and failure in Finnish startup guidebook and nonfiction literature.

In the knowledge-based, service oriented economy of Finland in the 2010s, startup entrepreneurship and new ventures have become increasingly important, not only in the sense of economic growth and job creation but also in the sense of identity and subjectivity. The success of notable Finnish startup companies, along with the noted startup event Slush, has helped define Finland as a place of innovative, groundbreaking startups. Therefore, many have begun to talk of Finnish startup culture and the ways it can be developed further. Varied selection of guidebooks and nonfiction literature explaining the nature of startup entrepreneurship in the Finnish context has emerged in the 2010s.

In this literature, insecurity, hardships and failure are routinely established as integral parts of startup entrepreneurship, and aspiring entrepreneurs are encouraged to develop skills to cope with them. The cultivation of such skills can be seen as techniques of the self. According to numerous scholars, new kind of work on the self is required of the individual in order to thrive in the postindustrial economy, which has gradually located individuals' persona and emotions to the center of production. Individuals are encouraged to journey inwards and cultivate various mental competences and abilities in order to succeed in the ever-changing, networked economy and labor market of today. These activities are often dubbed as therapeutic.

In this vein, I investigate Finnish startup entrepreneurship through the lens of therapeutic transformations of postindustrial work. I explore how issues of adversities and failure are addressed in Finnish startup entrepreneurship guidebook and nonfiction literature and what kinds of ways are introduced for one to endure such issues. The data consists of nine Finnish startup books published in the 2010s.

Keywords

entrepreneurship, postindustrial work, startup entrepreneurship

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21.05

THE CONCEPT OF MICROENTREPRENEURS' PEER-TO-PEER NETWORK. COMMUNITY OF PRACTICE AND A RESEARCH PLATFORM COMBINED

Riitta Forsten-Astikainen, Anna-Mari Simunaniemi, Kai Hänninen

University of Oulu, Kerttu Saalasti Institute, MicroENTRE research group, Nivala, Finland

Micro-enterprises employing less than ten people have economic importance as they account for approximately 95 per cent of all companies in Finland, the EU and globally. Micro-enterprises form a basis for the economy, innovation and employability. As pointed out by Tödtling and Trippl (2005) and Isaksen and Jacobsen (2017), the success of innovation systems in less developed and peripheral regions is triggered by diverse basic conditions and push factors (Pylak, 2015). Downgrading of traditional manufacturing and districts-based models in Europe, as well as the development of innovation clusters in developing territories (Giuliani et al., 2005), have highlighted the importance of increasing relationships between global and local-regional networks of entrepreneurs and innovators (Bathelt et al., 2004; Fitjar & Rodríguez-Pose, 2011). These linkages are of important especially for the growth of SMEs in less developed and peripheral regions, as they can increase their absorption capacity through inter-sectoral innovation flows (Rodríguez-Pose & Crescenzi, 2008). Boter and Lundström (2005) found that SMEs utilize public support systems in smaller, less populated regions more often than in larger regions.

Small companies in sparsely populated areas need light and cost-effective solutions to run and develop their operations. Networks provide a rich and complex metaphor for economic exchange relationship (Easton and Axelsson 1992). One approach is participation in microentrepreneurs' peer-to-peer networks to share ideas, learn and develop business. A new peer-to-peer network concept for micro-enterprises has been operating for three years in Northern and Eastern Finland (regions of Central and North Ostrobothnia, Lapland and North Savo). The concept was originally developed and launched in 2015 by the Micro-entrepreneurship Centre of Excellence MicroENTRE at the University of Oulu. The concept can be perceived as a community of practices (CoPs) (Wenger & Lave). In CoPs, the activity is built within the organization, i.e. the network, and the identity is based on shared interest. Through the present peer-to-peer network concept, university has a forum to help enterprises in regions. The concept entrepreneurs and researchers a platform to share a common interest (business growth) as well as to develop, disseminate and beneficiate the acquired common knowledge. As it is typical to CoPs, also in this network the practice-based community is formed naturally and it is characterized by shared experiences.

So far, the analyses have shown that based on the vast number of group discussions in network meetings, business growth in micro-enterprises should be defined, measured and researched in was that are meaningful and relevant to entrepreneurs. Instead of growth, other terms such as vitality or continuous renewal could be used. Further, the similarities between peer-to-peer networking and the community of practice are as follows: a way to handle and understand the concept, a way to work in groups, a process-like way of working, and sources of enthusiasm for working (Ison et al., 2014). In addition, the peer-to-peer network has met the three dimensions of action defined for the community of practice (Wenger 1998): 1) mutual commitment: members establish cooperative relationships with each other and establish norms for their common activities, and these ties hold the community together, 2) a common goal or "project": through mutual work and communication, community members achieve a common understanding of the "project" and shape it to fit their own activities and 3) common tools or resources: the community of practice generates resources for its activities and for that purpose, which may include, for example, shared meanings, practices and stories. As McPherson et al. (2001) have stated "People tend to spend time together with people who have similar interests."

A micro-enterprise is not a miniature version of a large company. For example, business growth and export strategies applied in large organizations do not suit for micro-enterprises. According to Gherhes et al. (2016), micro-businesses are distinguished from larger SMEs by being entrepreneur-centric, and they are constrained by a tendency to be growth-averse and to have underdeveloped capabilities in key business areas, underdeveloped personal capabilities and often inadequate business support provision. The importance of network relationship on firm's strategy and long-term planning has been highlight in several studies, which are mainly based on large companies. The present concept of microentrepreneurs' peer-to-peer network provides unique data for micro-entrepreneurship research. Currently the total network includes almost 300 microenterprises in fourteen local groups. With the help of this concept, micro-enterprises have successfully undergone various export and growth experiments and so-called fast experiments utilizing the peer-to-peer network. An important element of peer-to-peer meetings is free discussion and exchange of experiences around the chosen theme. The main goal is to provide entrepreneurs with new ideas and help them find new ways to develop their own business sparring and supporting them.

More central findings related to business growth and growth management, as well as interaction within the network meetings will be presented at the conference.

Keywords

micro-enterprise, community of practice CoPs, peer-to-peer network

22.01

INSTITUTIONAL LOGICS OF UNIONS OF PROFESSIONALS: DILEMMAS, CHALLENGES AND OPPORTUNITIES FOR EMPLOYEE PARTICIPATION BETWEEN UNIONISM AND PROFESSIONALISM

Arnhild Bie-Drivdal

OsloMet - Oslo Metropolitan University, Oslo, Norway

Public sector work is changing, and so is the unions organizing public sector employees. An increasing number of the unionized workforce are organized in organizations aspiring to be both union and professional association, still the knowledge about the specific dynamics of such organizations is scarce.

Unions and professional associations are often understood as fundamentally different organizations, applying different strategies for influence and driven by different motives. While unions are often described as agents fighting for their members' interests and rights, professional associations are sometimes regarded as social actors fighting to protect the status of their profession and/or securing the common good within their areas of expertise. Such distinctions have rightfully been rejected as too simplistic, however, few efforts are undertaken to develop more fruitful concepts. This paper will explore the institutional logics of different unions, through an analysis of three Norwegian public sector unions with different degrees of professionalization. What institutional logics frame employee participation in the different unions? How can similarities and differences between unions, and between different levels within unions, be understood?

Influence through elected union representatives is one means by which professional groups and workers in the public sector in general, may exert influence and contribute to renew and change public services, both at national and local levels. However, research on working life relations tend to pay little attention to professional issues, and research on professions pay correspondingly little attention to working life relations. One objective of the study is therefore to integrate these two research fields to generate new insight about the dynamics of public sector unions operating in knowledge-intensive workplaces, and thereby contribute to a reconceptualization of the study of contemporary unions.

The cases subject to closer examination will be the Norwegian Medical Association, the Union of Education Norway and the Norwegian Union of Municipal and General Employees, representing the medical profession, the teaching profession, and a variety of public sector workers, respectively. The data material will be the unions' key policy documents and more internally oriented documents related to the organizations' training of their elected representatives, as well as interviews with union representatives from the three unions. The data may be supplemented by public statements made by the union leaders and the basic agreements regulating the relationship between employers and employees in the relevant sectors of the labor market.

The paper will apply institutional logics as a theoretical perspective, and is based on the constructivist assumption that values, ideas and language shape attitudes and actions. Building on previous conceptions of logics, in terms of ideal types, the characteristics of two logics that are likely to be reflected in the unions' and their representatives' conceptualizations are described. More specifically, the article develops and defines 'a union logic', characterized by emphasis on self-interest, workers' rights and collective action, and a 'professional association logic', characterized by professionalization strategies, social responsibility, and professional ethics. The logics should be understood as ideal types and condensations of the main assumptions, values, beliefs and ideas related to unions and professional associations respectively. By exploring the different conceptualizations of employee participation and union influence, as conveyed in the data material, one aim is to challenge the traditional dichotomy between a union logic and a professional association logic. Preliminary findings indicate that different logics seem to operate across the unions, and at different levels within the unions, but also that a third logic can be identified – between unionism and professionalism. This may be described as a 'professional unionism' logic.

The findings in this study will be part of my PhD-thesis on unions in the public sector of Norway and their conceptualization of representative participation, professional influence and renewal in the public sector.

Keywords

Unions, Professional Associations, Employee Participation

22.02

‘DIGITAL BY DEFAULT’ ON THE FRONT LINE: THE EXPERIENCES OF UK BENEFIT ADVISORS DURING THE IMPLEMENTATION OF SOCIAL SECURITY REFORMS

Laura Anne Hickman

The University of Nottingham, Nottingham, United Kingdom

This paper draws on qualitative data to explore the experiences of current and former Department for Work and Pensions and Local Authority staff in the UK working in roles involving direct contact with benefit claimants. This data is used to highlight the emotional labour required in front-line roles with benefit claimants during a period of significant changes to legislation, working environments and uncertainties about job security.

Front-line public sector roles in the UK involving direct interactions with benefit claimants have changed considerably since the Welfare Reform Act 2012, which introduced substantial changes to benefit legislation including the ongoing and contentious move to Universal Credit and an increase in sanctions and benefit conditionality (Oakley 2014, National Audit Office 2016, Harris 2017, Millar and Bennett 2017, Fletcher and Wright 2018). In conjunction, the Department for Work and Pensions is moving towards a ‘digital by default’ approach (DWP 2012), encouraging claimants to apply for and maintain their benefit claims online and moving away from providing face-to-face support for claimants (Stafford et al 2012, DWP 2017). Existing research has explored the myriad of negative effects these changes have had for claimants, including an exacerbation of existing physical and mental health difficulties, fuel poverty, debt and rent arrears, and a sharp rise in foodbank usage (Machin et al 2015, Moffatt et al 2015, National Housing Federation 2015, National Audit Office 2016). The ‘digital by default’ approach has also been criticised for ignoring the needs of vulnerable claimants including those without access to, or knowledge of how to use, technology, and those with literacy difficulties (Stafford et al 2012, Hodkinson et al 2016). However, the implications of these changes and their effects for staff working face-to-face and voice-to-voice with benefit claimants have not been as fully explored.

This paper draws on diary and interview data to argue that these changes are significant, with staff contending with downsizing, new IT systems and negotiating interactions with claimants who may have been negatively affected by the changes. It uses the concept of emotional labour, defined as work that requires staff to evoke or suppress emotions in line with organisational expectations (Hochschild 1983) to understand how staff who are required to be the face or voice of unpopular changes to legislation and procedures manage their interactions with claimants. It aims to interrogate:

- how staff roles have changed
- any pressures staff are facing in this period of workplace upheaval
- the impacts their work has on them in and outside of the workplace
- the support available to staff, and who provides this support
- whether interactions with claimants are monitored by senior staff
- how technological changes involving a move away from front-line support have lessened or intensified the emotional labour required for the staff that remain in these roles

This paper applies the influential concept of emotional labour to a context of substantial workplace upheaval, uncertainty, and challenging workplace interactions. Exploring the role performed by these front-line staff dealing with distressed and angry claimants offers insights into emotional labour in the public sector and further commentary on the impacts of social security reforms, illuminating the daily challenges these staff face in their workplaces.

Keywords

emotional labour; welfare reform; public sector workers

22.03

TRUST-BASED MANAGEMENT AND ORGANIZATIONAL CHANGE IN HOME CARE. AN EXAMPLE FROM SWEDEN

Magdalena Elmersjö[1], **Elisabeth Sundin**[2]

[1]Södertörn University, Huddinge, Sweden. [2]Linköpings universitet, Linköping, Sweden

The paper takes its empirical points of departure in the introduction of trust-based management in home–care in a Swedish municipality. The example here called The Case is discussed and elaborated with references both to time, space theory and practice.

Home care is in the Swedish system a part of the welfare system the responsibility of the municipalities which means that there are 290 different ways of how to put the responsibilities into practice. The Swedish public sector is relatively large and organized in line with the Scandinavian welfare model. Since some decades the public sector has been criticized from a number of points of departure – lack of quality, inefficiency, financial deficit and problems to recruit an adequate number of employees with the right quality. The last problem is in many municipalities especially pronounced in home-care.

New Public Management-inspired methods have been established in order to meet the problems all over the western world. Christopher Hood, the probably most highly cited researcher on NPM, classified Sweden as the most extreme introducer of NPM in an article in 1991. The NPM practice has many dimensions like new language inspired by market relations and principles for organizing and managing. NPM turned out not be the solution many organizations and systems had hoped for but rather created new problems like expanding administrative tasks and professions that were not are allowed to use their full competence. These shortcomings have been reported in research reports, in the public debate and by politicians.

In 2016 the Swedish government announced a Trust-delegation, with a commission to reform the organizational principles of the public sector towards a more trust-based management. Trust-based management can be described as a form of steering of professionals, semiprofessionals and different occupational groups with their competence in focus. Quality measurement demands peer-reviews, where employees review each other's work and thru cross-professional cooperation.

The trust-based management discussion can be regarded as a response to a development of an increasingly result-based management of the public sector in Sweden. The Case and the paper contributes to the understanding of trust-based management by giving an example of trust-based management and organizational change in a Swedish municipality and to highlight different relational forms of trust The descriptions gives voice to key-actors on all organizational levels which gives conflicting perspectives in some dimensions but also to unanimous statements in others. Whether this will change over time has to be re-studied.

We use The Case to highlight different relations based on trust and the paper elaborate how this effect the organization in whole but also to challenge the dominating understandings of both how the home-care sector worked before NPM, under NPM and now after in the post NPM era. The discussion refers to public sector characteristics, the distinctiveness of care, especially distributed care, and how to manage and communicate in decentralized organizations.

Keywords

Trust-based Management Public sector

22.04

BEHAVIOR MEASUREMENT IN NURSING-CARE SERVICE FOR SERVICE PROCESS IMPROVEMENT

Hiroyasu Miwa, Kentaro Watanabe

National Institute of Advanced Industrial Science and Technology, Tokyo, Japan

Introduction:

Elderly care is an important service in an aging society. Japan is among the countries with the highest aging rate, reaching 27.7 % in 2017. Nursing staff, such as care workers, nurses, and care managers cooperate to provide various nursing-care services according to care plans designed to meet the elderly's conditions and needs, and according to the Long-Term Care Insurance Act.

As the demand for nursing care services increases, increase in work load and lack of human resource in terms of nursing staff have become social issues. It is estimated that there will be a shortage of 300,000 nursing staff by 2025. To resolve this issue, there are active attempts to improve service processes and introduce new technologies such as electrical care record systems, robotic care devices, and monitoring sensor. However, there is no sufficient support and evaluation for technology introduction.

Against this background, we have been developing measurement and visualization methods for nursing-care service processes (Miwa et al., 2012). In this study, we aim to propose a method to encourage the improvement of service processes by applying the measurement of nursing-care service processes.

Method:

To understand the nursing-care service processes, we measured the daily operations of nursing-care staff, based on behavior measurement, using time and motion study as well as indoor positioning.

In the time and motion study, observers followed nursing staff and recorded their operations, time when each behavior started and ended, their place of work, interaction with coworkers, the elderly to whom they provided services, and other observations (Miwa et al., 2014). The behaviors were chosen from a predefined list, including 144 fundamental operations.

For the indoor positioning system, many methods such as beacons surveying (Thomson et al., 2014) and PDR Plus (Kourogi et al., 2010) were proposed. In our measurement, a commercial indoor positioning service using beacons surveying was applied. The position of nursing staff was estimated from a signal strength transmitted from Bluetooth beacons installed in nursing-care facilities in advance and received via smartphones.

Subsequently, KPI (Key Performance Indicators) such as number of times and total duration of each operation, duration of stay at each area, and moving distance were calculated. We provided this feedback to nursing staff and service managers. Providing opportunities for discussion, including workshops and formal as well as informal meetings, was especially effective to encourage the improvement of service processes and a participatory design for new technologies and services (Watanabe, et al, 2015).

Case Study:

As application of the proposed method, we introduce two case studies. In the first study, we measured the behavior of care workers using both time and motion study and indoor positioning at two facilities providing facility-based long-term care service. Subsequently, we compared the data to understand their advantages and disadvantages.

In the second study, we measured the nursing-care service processes using the time and motion study before and after the introduction of an electrical care record system at four nursing-care facilities. Further, we evaluated the effect of system introduction. We confirmed that the care record system increased the number of times of data recordings but did not influence the total duration of data recording. This result indicated that the nursing staff changed their data recording work flow from batch to need-based recording. Additionally, there were no significant differences in direct work ratios. We concluded that the introduction of the system had minimal negative impacts on residents.

Discussion:

In this section, we discuss the advantages and disadvantages of indoor positioning, and time and motion study. As the advantages of indoor positioning, its system could measure behaviors of all care staff simultaneously; however, in the time and motion study, the number of observers was limited because of the capacity of nursing-care facilities. Further, the use of indoor positioning created less feeling of being monitored as compared to the experience of nursing staff and the elderly during the time and motion study. Moreover, in the time and motion study, only the area level could be

recorded, whereas in indoor positioning more accurate position information, moving distance, and moving trajectory could be obtained. On the other hand, the disadvantage of indoor positioning was that it was difficult to estimate the nursing staff's operation.

However, the series of operations and places seemed to be related to the context. Nursing staff could remember and reflect on their own behaviors in the workshops by time and place triggers. Accordingly, we expected to produce a synergistic effect in the workshops by combining the advantages of both systems. In the future, we would like to develop a system that encourages workshops and discussions for service process improvement as well as supports and evaluates for technological introduction and development by combining the indoor positioning system and knowledge obtained through the time and motion study.

Keywords

Nursing-care, Workshop, Evaluation

22.05

WHAT IS UNIVERSITY? EXPANSION AND TRANSFORMATION OF ACADEMIC WORK

Liubov Vetoshkina

University of Helsinki, Helsinki, Finland

In Finland universities constitute a significant part of public sector. Often seen as relatively traditional and stable, academic work is going through various transformations. Multiplication and diversification of tasks go hand in hand with new forms of control of teaching, research, administrative assignments, and science communication. These forms of control, alongside with other practices and tools are often adopted from business world. The new University is often expected to increase collaboration between teachers and between researchers, stress practical applications in teaching and research, make students more self-guided, and utilize different digital tools among others. These transformations are often reflected in the mission statements, where universities formulate their values, goals, excellence and reputation (Kivistö & Pihlström, 2018; Musselin, 2007; Whitley et al., 2010).

Mission statements and visions are documents, directed primarily to the "outside" world. Focusing primarily on the documents is not enough to understand how the changes are happening in the real work. One needs to study real activities and practices in order to grasp these change processes. Cultural-historical activity theory (CHAT) provides a framework for studying practices by taking concrete, historically developed object-oriented activities and interactions between them as units of analysis (Engeström, 2015).

By employing the CHAT framework, this study analyzes transformation of academic work through examining organization and implementation of a novel mass course. The course is obligatory for master students at the Faculty of Educational Sciences at the University of Helsinki. The course is organized and implemented by multiple professors, lecturers, and researchers. The main focus of the course was on the current issues in educational research and applications of the results of these studies. As the responsible professor said, "the course is without contents" - students had to be pro-active and were supposed to create course contents from the given options. The teaching and organization was supported by the use of various digital instruments.

The course and the process of preparation and adjustment of the course was followed using methods of hybrid ethnography, employing both traditional methods of ethnography to study work and principles of digital and virtual ethnography (Caliandro 2014; Vetoshkina, 2018).

Situations of uncertainty and ambiguity during the course were creating challenges and opportunities for learning for all course participants, including students and teachers. They had to learn new concepts of research, teaching, learning, and organization at the university. Teachers and students also had to learn new roles, ways of collaboration and interaction. These concepts and roles were not pre-determined in the process of the course, the actors had to learn what was not yet defined. This kind of learning may be conceptualized through the concept of expansive learning (Engeström, 2016). Expansive learning is manifested primarily as changes in the object of the collective activity. Expansive learning is happening in cycles. Usually, expansive learning is analyzed as leading to institutional changes through interventions. At the same time, expansive cycles are happening on different levels and different time scales (Miettinen, 2002). Micro- and macro cycles of expansive learning will be identified in the data.

The steps of expansion in the transformation of academic work were not happening smoothly along the expansive cycle, it was more like a movement in a maze, where a person can take multiple paths and take a turn back. The smaller transformations were not necessarily leading to the start of bigger transformative cycles. One of the aims of the analysis is understanding factors, which enhance or prevent transformations in activity.

Strong traditions of academic freedom are being re-defined, as communities, where universities exists are changing. Public funding puts expectations on mass education of students, application of business perspectives to academia calls for novel evaluation of research and teaching. The global transformations of academic work are manifested and carried out in the everyday work of academic workers. They are re-defining the idea of university in their daily work.

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Keywords

academic work, expansive learning, university teaching

22.06

TRANSFORMATION OF WORK IN FINNISH MUNICIPALITIES

Niilo Hakonen

KT Local Government Employers, Helsinki, Finland

In recent years, the Nordic countries' top rankings in international comparisons have made them an interesting research target. Their strong performance cannot be explained by tax rates alone. The local and central governments in these countries must have done some things right and perhaps also done them in a way that has benefited the businesses operating in the country.

"Poorest child in Finland can go to one of the best schools in the world, for free."

While it is often difficult to measure the public value created by public organizations, it is possible to approach this topic indirectly by examining social outcomes. Statistics Finland has compiled results from international country comparisons on its website https://www.stat.fi/ajk/satavuotiassuomi/suomimaailmankarjessa_en.html. Let me share some of these results with you. In most cases they could also tell about the other Nordic countries.
Finland is the world's least fragile country. Finland is the safest country in the world. Finland has the best governance in the world. Finland is the world's third least corrupt country. Availability of official information in Finland is the best in the EU. Finland boasts the highest ranking in the world in human well-being. Finland is the world's happiest country. Finland ranks second among European countries in life satisfaction. Finland's capital Helsinki has the highest gender equality ranking in Europe.

Finland has the world's best primary education. Finland ranks third in the world for educating for the future. Finland is the most literate country in the world. Finland has the best digital public services in the EU. Mothers' and children's well-being in Finland is the second best in the world. Finland has the second lowest overall cancer mortality rate in the EU. Finland is Europe's third best country for business.

Transformation of work challenges public organizations as well

The transformation of work challenges public organizations across the world to improve and reform the way they operate. While public organizations are reforming their operations they may also face competition from unexpected directions. I am talking about disruptions. A disruption means that a solution that works better for the customer makes the old system redundant. What could disrupt public services in the Nordic countries?

Transformation of work refers to a years- and decades-long change towards a new, more diversified world of work. The transformation is accelerated by the use of new technology, such as digital services, robots, artificial intelligence and platforms. However, it is also linked to the reform of practices

and work content in work communities and work places.

What is really going on in municipal workplaces?

The timeframe is worth keeping in mind, when reading over-the-top headlines about how robots will take over human jobs and how artificial intelligence is going to transform the world overnight. In reality, nobody knows in advance how fast and in what way the changes will take place and new technology be implemented. We have a tendency to overestimate short-term changes and to underestimate changes that take place in the longer term.

This is why the Local Government Employers KT together with principal negotiating organisations for the employees decided to carry out a large follow up study about the transformation of work in Finnish municipalities. The aim of the study is to find out what is really going on in municipal workplaces. Have practices and work contents changed or have they not? What kind of effects has it had for customers and for employees? Finland has 295 municipalities and 117 joint municipal authorities, which employ about 419 000 people.

The follow up meetings, discussions and queries will take place in the spring of 2019. For that purpose 21 tentative descriptions of transformation of work in different municipal workplaces and themes has been made. The labour market organizations have summoned experts, managers, developers and local government employees all over the country to discuss, to tell about their own experiences and to comment each description. The results of the follow-up are available and presented in the conference.

A transformation of work changes tasks, practices and work organization. As new occupations, tasks and skills needs are created, some of the old tasks disappear or are taken care of in some other way. The important thing, however, is that this transformation has different implications for different occupations and sectors.

Keywords

Transformation of work, Finnish municipalities, digitalization

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22.07

CHANGING COMPETENCE REQUIREMENTS IN PUBLIC SERVICES: CONSEQUENCES OF DIGITIZATION IN GENERAL AND HIGHLY SPECIALIZED WORK (CORPUS – A NEW RESEARCH PROJECT STARTING JUNE 2019)

Monika Nerland, Mervi Hasu

University of Oslo, Oslo, Norway

INTRODUCTION

Digitization alters key relations and practices in working life, such as ways of accessing information and coordinating work, ways of distributing roles and responsibilities, and ways of performing human judgement. However, we lack research-based knowledge about how these developments play out in specific work settings, and what the changes imply for workers' opportunities to engage, learn and stay included in work communities over time.

The overall aims of CORPUS project are to a) generate novel research-based knowledge about how work-related skills and competencies are transformed in specific ways as a consequence of digitization processes in the public service sector, b) generate a better understanding of the mechanisms that enhance or hinder continuous learning at work for different groups of employees, and c) based on this research, develop a user-oriented model intended to assist work organisations in mapping emerging competences and organising work-based learning opportunities for an inclusive and sustainable working life.

DATA AND METHODS

Public health services form the empirical sites. These are heavily exposed to different types of technology change; they employ a major portion of public sector employees, of which a high percentage is female; and the capacities of work organisations, leaders and employees to take new technologies and data sources into use in productive ways are critical for the sustainability of the welfare society. It targets workplaces that are important for the inclusion of women, migrants and workers with variegated skill levels in today's labour market. The project is placed in University of Oslo, Norway.

The project is interdisciplinary and comprises researchers with expertise in workplace learning, informatics and sociology of organisations. It involves close collaboration and comparison with ongoing and related projects in other Nordic societies, especially with research teams in the Finnish SWiPE project and the Swedish LETStudio.

The project will employ a multiple embedded case design (Yin, 2017) which allows for in-depth studies of work and learning in technology-dense settings whilst integrating different data types and sub-units of analyses in the cases. The project includes three main cases to be conducted in the Norwegian context. The cases are selected to incorporate the main digitization trends as described above, and also to include on-the-job learning as well as more organized practices of learning and knowledge sharing.

THEORETICAL FRAMEWORK

The increasingly dense and constantly evolving digitized environments pose new demands to professionals and their capacities to contribute to, share, navigate and make use of relevant information. New 'spaces' for learning may arise through the platform-based ways of organizing and coordinating work on the one hand, and the combination of algorithm-based advices and human judgement in decision-making on the other. Following Nardi & O'Day (1999) we will use the notion of information ecologies, referring to a 'system of people, practices, values and technologies in a particular local environment' to describe and analyse characteristics of digitized work contexts. The project takes the analytical stance that learning at work is intrinsic to participation in work practices and formed by the types of tasks, resources, responsibilities and conventions that constitute these practices. Our positioning in the proposed project is that the way IT-systems are used, and their effectiveness at work, will depend on complex interactions between technology, organisation, specific context and participants (users of various kinds, professionals and clients etc.) and their agency.

EXPECTED RESULTS

This project adds to existing knowledge by conducting close-up studies of how digitization generates changes in work organisation and task distribution, what competences are needed to cope with and resolve these challenges, and what learning opportunities are afforded.

The CORPUS project will develop new knowledge about how digitization and its consequences for work organisation serve to change competence requirements and opportunities for learning at work. CORPUS addresses current societal challenges related to digitization, changes in work organisation and challenges of inclusion in the labour market. It relates to recent reforms and policy initiatives in Norway such as the ongoing work of the Official Norwegian Committee on Skill Needs ('Kompetanseutvalget') and the recent Coordination reform in the health sector. Similar initiatives are launched in other countries, in the Nordic area and beyond. The results of CORPUS will inform future policies for lifelong learning and for the inclusion of different groups in working life, especially in the public sector services. The project will also support the ongoing digitization in these services. Results will be useful for managers in their efforts to map competence requirements and learning needs in their organisations, and the municipality health services in Norway will learn from work and experiences in other Nordic contexts.

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Keywords

Competence, Public sector, Work

23.01

THE RELATIONSHIP BETWEEN INTRAGROUP CONFLICTS AND WELL-BEING IN WOMEN DOMINATED WORK

Susanne Tafvelin, Elin Kvist, Britt-Inger Keisu

Umeå University, Umeå, Sweden

Stress and ill health is a growing problem in working life in general, and in women-dominated work in particular. Understanding factors that contributes to stress and ill-health in women-dominated sectors is therefore imperative, and previous studies suggest that factors in the work environment may be of importance. One potential explanation that has been less studied is the role of conflicts in women-dominated work.
Studies of conflicts at work have by tradition focused on conflict management and not their consequences, and those studying consequences have

mainly focused on the role intragroup conflicts play for individual or group performance. These studies suggest that different type of conflicts affects team performance in different ways, however, the prevalence and consequences of intragroup conflict on employee well-being in general, and in women dominated work in particular, have been less studied. The lack of integration of research on intragroup conflicts on the one hand and employee well-being on the other hand is remarkable, given that the relationship between conflicts and well-being is not only intuitively appealing, but that over seven percent of employees on sick leave attribute their poor mental health to conflicts at work.

The aim of the present study was to examine the prevalence and consequences of intragroup conflicts in three women dominated occupations (i.e., teachers, social workers, and nurses) from a gender perspective.

Method

We used a random sample of 1806 employees from health care, education, and social work. We measured intragroup conflict with a nine item scale developed by Jehn and Mannix (2001) that includes three subscales differentiating between task, relationship and process conflic. In addition, we measured a number of health outcomes such as vigour, stress, depression, and burnout using previous validated scales from COPSOQ (Pejtersen et al., 2010). We then used structural equation modeling in Mplus to analyze our data.

Results

Our analyses showed that 95 % of our sample had experiences of relationship conflict, 97 % of task conflict, and 89 % of process conflict. Also, 3 % experienced relationship conflicts on a more frequent basis (often, or all the time), while the corresponding numbers for task conflict was 5 % and for process conflict 3 %. Comparing the ratings of men and women, we found no differences in the amount of perceived intragroup conflict. Our analyses also revealed that all three types of conflicts were related to stress and well-being, but differently so for men and women. For women, all three types of conflicts were related to increased stress and reduced well-being. For men, relationship and task conflict predicted stress and well-being, but less so process conflicts.

Discussion

Our study contributes with knowledge on the prevalence and consequences of intragroup conflicts in women-dominated work. The findings suggest that conflicts are a source to stress and ill-health in these kind of workplaces. In addition, our findings suggest that there may be differences between how men and women react to intragroup conflicts. Our study point towards the importance of conflicts at work for explaining stress and well-being, and suggest that organizations in women-dominated workplaces should take conflicts into consideration when forming strategies to reduce stress and ill-health at work.

Keywords

Intragroup conflicts, well-being, women dominated work

23.02

THE ROLE OF SERVANT LEADERSHIP IN WELL-BEING AT WORK AND HOSTILE WORK ENVIRONMENT

Piia Leppämäki

University of Jyväskylä, Jyväskylä, Finland

Leadership development and investments in employee well-being have been mentioned as potential solutions to increasing career length and work productivity. In contrast, organisations face challenges, such as hostile work environment, particularly workplace bullying and abusive supervision. Servant leadership research has found a connection between servant leadership and well-being at work (e.g. van Dierendonck et al 2017). In addition, ethical leadership, which has similarities with servant leadership (van Dierendonck 2011), can improve work environment, which is negatively related to workplace bullying (Stouten et al 2010). The aim of this study is to construct a theoretical model that illustrates the relationship between servant leadership, well-being at work and hostile work environment, a better understanding of which will help organisations develop leadership to improve working conditions.

According to Greenleaf (2002), servant leaders are oriented towards the needs of subordinates. In this study, servant leadership is defined as a construct consisting five dimensions: empowerment, humility, standing back, stewardship and authenticity (van Dierendonck et al. 2017). In the

theoretical model of this study, well-being at work is evaluated as a combination of work engagement and burnout based on the job demands-resources model. Job demands are aspects of work that require effort or competence while job resources are aspects that assist with managing job demands. The balance of resources and demands can either prevent or promote both work engagement and burnout. (Bakker & Demerouti 2007.) Work engagement is characterised by the dimensions of absorption, vigor and dedication (Schaufeli et al. 2002), while burnout is a three-dimensional, work-related construct that includes exhaustion, cynicism and reduced professional efficacy (Maslach & Leiter, 1997). The job demands-resources model can also be applied to hostile work environment, in which job resources are low and demands high (Broeck et al 2011). In this study, hostile work environment is defined as a combination of two negative workplace phenomena; workplace bullying (Einarsen 1999, 16) and abusive supervision (Tepper 2000, 178).

The objective of this paper is to construct a theoretical framework that explains the role of servant leadership and its dimensions in well-being at work and hostile work environment.

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Keywords

Servant leadership; well-being at work; hostile work environment

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23.03

MEASURING THE OCCUPATIONAL WELL-BEING OF CHILD PROTECTION SOCIAL WORKERS – CHALLENGES AND OPPORTUNITIES

Andreas Baldschun

University of Eastern Finland, Kuopio, Finland

The measurement and evaluation of child protection social workers´ occupational well-being is challenging to many aspects. Due to the nature of child protection work, the factors contributing to the occupational well-being are manifold and complex. However, a comprehensive model of occupational well-being for the social work profession is missing and, therein, the measurement of social workers´ occupational well-being insufficient. The available measurement tools do not fully cover all the relevant factors, and consequently are disregarding important aspects in assessing occupational well-being. As a consequence, the measurement results are inaccurate and impeding the effective determination of sustainable interventions.

The recently published dissertation examined the underlying processes of the occupational well-being of child protection social workers. The overall objective of the study was to expand the knowledge of the structure of social workers' occupational well-being and the associated factors of developing and maintaining the occupational well-being, particularly for child protection social workers. The study was realized by the creation of the multi-dimensional model of occupational well-being based on the analysis of key concepts of work-related distress and well-being and by the empirical exploration of the situation among Finnish child protection social workers. The sample for the empirical part was obtained from an ongoing longitudinal

cohort study, known as the Ten Town Study, on work-related well-being among Finnish public sector employees. The overall sample size used in this investigation is N = 1 220 and consisted of statutory social workers (N = 893) and social instructors (N = 327) from eleven Finnish municipalities. The data was used to explore the structure of occupational well-being applying the structural equation modelling method and to identify the factors associated with high levels of occupational well-being using logistic regression analysis. As a result, the multi-dimensional model, comprising the six dimensions of affective, cognitive, social, professional, personal and psychosomatic well-being, is presented.

The theoretical construction of the six-dimensional model of occupational well-being model was partly confirmed by the structural equation modelling process. The final empirical model revealed the four dimensions of affective, social, cognitive/professional, and psychosomatic well-being. The estimates of the empirical model showed a consistent model for the three groups of child protection social workers, social workers without duties on child protection and social instructors, which implies that the revealed structure can generally be applied in the field of social work. However, notably lower affective and psychosomatic well-being was found among child protection social workers. The exploration of health-related variables revealed statistically significantly higher levels of burnout and secondary traumatic stress among child protection social workers and equal levels of general health, compassion satisfaction and overall occupational well-being. Additionally, a number of factors associated with high levels of occupational well-being were identified. These factors can be divided into individual and organizational factors, which basically documents the share of responsibility in developing and maintaining occupational well-being. Together with the empirical results, the theoretical model provides a comprehensive framework for assessing and evaluating child protection social workers' occupational well-being. The findings of the study presented confirm the need for a field specific measurement instrument and are used to make suggestions for the development of an appropriate assessment tool.

Keywords

child protection, occupational well-being, social work

23.04

PRODUCING THAT STATUS OF 'A GOOD EMPLOYEE' IN RETURN TO WORK NEGOTIATIONS – ASSET OR RESTRAINT?

Hanna-Leena Ristimäki[1], Pirjo Juvonen-Posti[2], Elina Weiste[2], Johanna Ruusuvuori[1]

[1]Tampere University, Tampere, Finland. [2]Finnish Institute of Occupational Health, Helsinki, Finland

Processes of work related rehabilitation often involve several stakeholders and sustainable impacts arise through their shared decision-making. This study examines the phenomenon of producing 'good employee morality' in return to work negotiations (RTW) following a long sick leave. In the negotiations a physician, employee and his supervisor identify potential work modifications that would alleviate the employee's return to work, according to the employee's actual work ability. These involve e.g. cutting working hours, reducing the work load and finding ergonomic solutions. The aim is to achieve a decision, which satisfies the employee and the employer. The situation is delicate as the stakes of finding the satisfactory solution are high for both the employee and the employer. This study examines a recurrent phenomenon in the data that lies outside the explicit agenda of the negotiations: the observable orientation of the participants towards producing and reproducing the employee's status as 'a good employee'.

The study is part of co-operated project by Tampere University and the Finnish Institute of Occupational Health. The data consist of 14 video-recorded RTW negotiations, altogether 540 minutes. The data are analysed using Membership Categorisation Analysis (MCA) and Conversation Analysis (CA) to demonstrate the ways in which the participants orient to producing the status of 'a good employee' with the help of their category choices and their sequential ordering. This occurs in 10 of the 14 negotiations, especially during the decision-making sequences. The analysis demonstrates a) how the status of 'a good employee' is produced, b) which of the participants engage in producing it, c) where producing that status is located in the decision-making activity and d) what kind of actions this kind of categorical work affords to the negotiating parties, or possibly restrains them from engaging in.

Based on our preliminary observations we conclude that producing the status of 'a good employee' can bring potentially problematic elements to the decision-making. Emphasizing the employee's willingness to return to work or build the commitment to the workplace instead of focusing on the employee's work ability may not accord with the remaining work ability of the employee. Thus it may cause challenges to the RTW negotiation. Repairing the problematic elements may disrupt the progressivity of the decision-making and thus geopardize the basis of the decisions to be made. This may risk successful rehabilitation and further return to work processes.

Keywords

work ability, decision-making, negotiation

23.05

WHEN SUPERVISOR SUPPORT AFFECTS KNOWLEDGE WORKERS' LIFE SATISFACTION - THE ROLE OF PERSON-JOB FIT

Ilona Toth, Anna-Maija Nisula

LUT University, Lappeenranta, Finland

Purpose

This paper examines the moderation effect of person-job fit between perceived supervisor support and general satisfaction with life. An increasing number of employees can be categorized as knowledge workers who generate and utilize knowledge (Davenport et al., 2002) for better production and performance (Dul et al., 2011). Knowledge-intensive work is grounded on low capital investments and a highly specialized workforce (Von Nordenflycht, 2010). The increase of autonomy and a constant demand for flexibility in work arrangements are characteristics of modern knowledge-intensive work, which are further intensified with the growing level of digitalization. This kind of work may change the conventional supervisor – employee relationship, and it is therefore important to investigate aspects that affect knowledge workers' life satisfaction, and whether there is an interactional effect of supervisor support and person-job-fit for knowledge workers' life satisfaction.

General satisfaction with life is defined as "a global assessment of a person's quality of life according to his chosen criteria" (Shin & Johnson, 1978, 478) and it is seen as consisting of hope and optimism (Bailey et al., 2007). The Satisfaction with Life Scale (SWLS) has been widely used around the world for measuring well-being and overall happiness in life (Diener et al., 1999). However, according to Erdogan et al. (2012), the management research field has largely neglected to discuss in depth the effect the work role has on the level of life satisfaction.

Person-job fit describes a match between personal abilities and demands of the job (Cable & Judge, 1996; Lauver & Kristof-Brown, 2001). According to past research, person-job fit leads to job satisfaction (Latham & Pinder, 2005), and is also related to beneficial organizational results (Tims & Bakker, 2010; Edwards, 2008). Person-job fit is an important factor in recruitment processes where the individual's knowledge, skills and abilities need to be considered in relation to the demands of the job description (Edwards, 2008).

Perceived supervisor support refers to knowledge workers' experienced psychological safety. Psychological safety at work assumes that an employee is not afraid of negative consequences from expressing their true self at work (Kahn, 1992). Lack of support from superiors has ultimately resulted in employee burnout (Maslach et al., 2001). However, the nature of knowledge work may change the ways in which organizational support is manifested in organizations.

Together, perceived supervisor support and person-job fit may have an interactional relationship for knowledge workers' life satisfaction, It follows that the impact of supervisor support to knowledge workers' life satisfaction is dependent on the variable of person-job-fit.

Design

We built a theoretical model wherein the person-job-fit moderates the relationship between perceived supervisor support and knowledge workers' life satisfaction. We investigated the nature of the interactional effect of supervisor support and person-job-fit to knowledge workers' life satisfaction, and tested the stated hypothesis with the data set (N=205) collected in September 2017 from knowledge workers who are members of a Finnish academic trade union (TEK).

We used SEM/PLS(SmartPLS 3.0) to test the moderation effect of person-job-fit in the relationship between perceived supervisor support and life satisfaction, following the procedures to test the moderation effect with the PLS approach (Hair et al., 2017;).

Findings

Our results show that person-job-fit moderates (β=0.116; t=2.265; p=0.01) the relationship between supervisor support and life satisfaction in our sample. The model explains 44.4 percent of the variance in knowledge workers' life satisfaction. The control variables, age, gender and education, were all non-significant in our sample.

Thus, the higher the person-job-fit, the stronger the relationship between supervisor support and knowledge workers' life satisfaction, and correspondingly, the lower the person-job-fit, the weaker the relationship between supervisor support and knowledge workers' life satisfaction. Knowledge workers, who feel a perfect match between their personal abilities and demands of the job, experience supervisor support affecting strongly and positively to their life satisfaction, whereas knowledge workers, who feel a mismatch between their personal abilities and demands of the job, do not experience such affiliation.

Implications for research

The research contributes to debate on knowledge work by providing empirical evidence of the interactional impact of supervisor support and person-job-fit to knowledge workers' life satisfaction. Our findings implicate that the role of supervisor support is intensified by how well the current job fits the expectations of the employee.

Originality/value

Previous studies have investigated the direct relationship between person-job fit and job satisfaction (Latham & Pinder, 2005) and other positive organizational results (Tims & Bakker, 2010) but have neglected to study employees' overall life satisfaction as a resulting condition. Person-job fit has been studied as a mediator between job crafting and job engagement (Chen et al., 2014), and as a moderator between training investment and knowledge workers' turnover intention (Chang et al., 2010). The present study sheds light on the moderating role of person-job fit on life satisfaction, which has been a clear research cap in scientific literature on knowledge work.

Keywords

perceived supervisor support, person-job fit, satisfaction with life

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23.06

SELF-REPORTED HEALTH PROBLEMS AND WORK DISABILITY: A PROSPECTIVE COHORT STUDY OF EMPLOYEES FROM DIFFERENT INDUSTRIES

Minna Pihlajamäki[1], Jukka Uitti[1,2], Mikko Korhonen[1], Heikki Arola[3], Heini Ahveninen[3], Tapio Nummi[1], Jyrki Ollikainen[1], Simo Taimela[4,5]

[1]University of Tampere, Tampere, Finland. [2]Finnish Institute of Occupational Health, Tampere, Finland. [3]Terveystalo, Helsinki, Finland. [4]Evalua, Helsinki, Finland. [5]University of Helsinki, Helsinki, Finland

Background:

The main goals of health surveillance are to prevent work-related illnesses, to support employees' health and ability to work and reduce absenteeism as defined in the international directive (Council Directive 83/391/EEC) and International Labor Office's (ILO) guidelines [1]. This is important due to the cost of work disability (WD) has become a significant burden to public finances [2]. Some screening questionnaires are used as a part of targeted health surveillance to identify employees at temporary work disability (TWD), [3-5], and permanent work disability (PWD) risk [5, 6].
In the present study, we used a health risk appraisal (HRA), which presents the results as different risk categories on the basis of self-reported symptoms and health behaviors. The HRA was able to identify blue-collar employees in the construction industry with a high number of sickness absence (SA) days in a previous study [4].

Aim:
Our objective was to study whether self-reported problems assessed by the HRA predicts TWD, defined as sickness absence (SA), and PWD, defined as disability benefit (DB) in Finnish occupational healthcare setting among employees from different industries.

Methods:
The results of the HRA were combined with the registry data on SA of 21608 and DB of 22023 employees. The explanatory variables were the HRA results, occupational group, age and number of SA days before the survey. The outcome measures were accumulated SA days during 12-month follow-up and granted DB as proxy measures of TWD and PWD. We used a hurdle model with negative binomial response to analyze zero-inflated count data of SA, the Fine-Gray model to estimate the predictors for DB occurring over time, and cumulative incidence function to illustrate the difference between HRA categories.

Results:

"WD risk" categories as defined in the HRA predicted SA and DB regardless of occupational group and gender.

The ratio of SA days means varied between 2.7 and 6.1 among those with "WD risk" category and the reference category with "no findings". The lower limit of the 95% CI was at the lowest 1.6. In the Hurdle model, WD risk factors, SA days prior the HRA and obesity were additive predictors of

the propensity for SA and/or the accumulated SA days in all occupational groups.

In addition to age and prior sick leave days, the "WD risk" category in the HRA predicted DB. HRs were 10.9 or over with the lower limit of the 95% CI being 3.3 or over among those with two simultaneous findings. After six years, 14% of the females and 17% of the males with three or more simultaneous WD risk factors had received a DB, whereas the respective figures among those without findings were 1.9% and 0.3%.

Limitations:

We did not have access to the statutory accident insurance data, so WD resulting from accidents at work, occupational diseases, and traffic accidents are not included in our study.

Some WD criteria are comparable between countries, such as requirements for a health condition in relation to work and the permanence [7]. However, the implementation of the legislation varies between countries [2], and therefore our results must be interpreted with caution in the international context.

Conclusion:

The HRA "WD risk" categories, age and earlier SA days predicted TWD and PWD in an additive manner among both genders. The use of the HRA with predictive validity seem appropriate for targeting health surveillance efforts to employees in need. These findings have implications for targeting occupational health care actions towards those in need, to prevent WD. The HRA is a potential tool for recognizing employees who are at an increased risk of WD.

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Keywords

Work disability, Occupational healthcare, Health risk appraisal

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23.07

TO HAVE OR NOT TO HAVE LEADERS? IF NOT, WHAT ABOUT EMPLOYEE WELLBEING?

Mats Ehrnrooth[1], Natalia Fey[1], Kirsi Mikkonen[2]

[1]Hanken School of Economics, Helsinki, Finland. [2]NITOR, Helsinki, Finland

The roots to the creation of more flexible, adaptable, dynamic, decentralized and engaging organizations are deep (Follet-Parker, 1924; Hackman & Oldham, 1986; Manz & Sims, 1980). The creation of such organizations is considered dependent on extensive self-management (Stewart, Courtright & Manz, 2011) and the related ideas of distributive, shared or emergent leadership (Sweeney et al., 2019). Currently the idea has become more relevant than ever (Hamel, 2007; Birkinshaw & Ridderstråhle, 2017). Still, some continue to argue forcefully for the importance of leaders who

make key decisions on certain matters (Foss & Klein, 2014), and for the serious challenges with more organic, less hierarchical, less leader-centric organizations (Foss, 2003). But 'getting rid of managers' (Hamel, 2011) seems to be a sticky notion whose time may have come. It strikes an accord that sounds good together with the popular notion of agile (Gulati, 2018; Rigby, Sutherland & Noble, 2018). But what's the sound like when we add a "note" on wellbeing? This is a story about an organization that plays on all three accords: self-leadership, agile, and the wellbeing of employees. The focus will be on well-being in self-led organizations.

Nitor is a prominent Finnish company practicing "organizing without managers" and challenging the mainstream belief of how profitable companies should be managed. Founders of Nitor agreed that when they take exceptionally good care of their customers and their employees, they build a strong foundation for a successful company. Benchmarks with other companies now prove that the chosen recipe is successful. Nitor has the best customer satisfaction cores in history 2012-2017 (ref. to Oneway)and it has been recognised as the greatest place to work in Finland 2017-2018 and 2nd in Europe 2018 and listed in Deloitte technology fast 50.

To build an operational environment for Nitor experts, where their expertise is respected and they have authority on every aspect of their work, company has developed distinct organizational culture where all employees are trusted, respected and empowered, information is openly shared, management hierarchy is eliminated and the strategic decisions are taken collectively. There are multiple initiatives and instruments in place at Nitor enhancing its self-organizing nature. Peer coaching system Kamu is a central part of Nitor's culture providing an effective supplement of management hierarchy at Nitor.

The key aim of the Kamu support system is to enable wellbeing for NITOR's employees. Professional development and grows come to the picture only after wellbeing of an employee is taken care of. This focus of coaching interventions on well-being of employees in the first place differentiate Nitor from majority of the organizations using coaching for increasing individual performance and organizational productivity in a first place. Thus, we have studied Nitor's peer coaching system to understand the enablers of well-being both on individual and organizational levels in self-led organization.

The authors interviewed 25 employees in the role of coach (Kamu) and coachee (Kaveri) at Nitor in April-May 2018. Semi-structured interviews were 45 minutes to 90 minutes long, they have been conducted at the Nitor's office by one or two authors, and have been audio recorded and transcribed. 30 hours of recordings transformed into 360 pages of the transcribed materials and content analysis of the received data has been performed by the authors.

Our study provides valuable insights into the role played by an innovative peer-coaching system for individual and organizational well-being. Some of key findings include: 1). Empowered employees possess variety of diverse needs and expectations. In order to meet these diverse needs coaching support system should be flexible, adaptable and voluntary. 2). Holistic approach to peer-coaching is well-met, employees embrace an opportunity to focus both on professional and personal goals during the Kamu coaching sessions; 3). Regular peer-coaching sessions enable learning, adaptation, flexibility and agility both on individual and organizational levels at Nitor.

Keywords

self-led organization, well-being, coaching self-led organization, well-being, coaching self-led organization, well-being, coaching

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23.08

SOCIAL MEDIA USAGE AND WORK ENGAGEMENT AMONG FINNISH WORKERS – LINK TO ORGANIZATIONAL IDENTIFICATION AND SOCIAL SUPPORT

Reetta Oksa[1], Markus Kaakinen[1], Nina Savela[1], Noora Ellonen[1,2], Atte Oksanen[1]

[1]Tampere University, Faculty of Social Sciences, Tampere, Finland. [2]University of Helsinki, Institute of Criminology and Legal Policy, Helsinki, Finland

Today's work life is highly demanding due to digitalization, constant changes in ways of working and changes in skills demands. Work-related social media usage has increased dramatically during the past few years, and organizations are utilizing it more for both internal and external purposes. Social media provides endless possibilities to enhance communication, share information and build professional identity. In addition, social media is increasingly used for employer branding purposes to attract and retain the most wanted employees. Therefore, it is important to examine whether professional social media usage can increase work engagement, resulting in employees experiencing vigor, dedication and absorption to their work and workplace. The aim of this social psychological research is to analyze how professional usage of social media is associated with work engagement among Finnish workers.

Survey data was collected from five Finnish expert organizations (N = 563) in November–December 2018. Additional national data from Finland (N = ca. 1500) will be collected in March 2019. The survey explores professional social media usage. The Utrecht Work Engagement Scale (UWES-9) is used to measure work engagement. Additionally, the survey includes measures of organizational identification and job demands and job resources including social support. The analyses are conducted with structural equation modelling.

Based on the analysis, the link between professional social media usage and work engagement is mediated by organizational identification. This implies that employees who use professional social media are engaged because they feel that social media enhances their identification with the organization. In addition, work engagement is strongly related to perceived social support. However, perceived social support is not associated with professional social media usage. Our additional analyses pointed out that non-work-related communication between employees is positively associated with organizational identification and social support. Nevertheless, using social media for work-related communication between employees is not associated with organizational identification or social support.

To conclude, professionals who have informal communication within an organization are more engaged with their work. For the organizations, it is important to acknowledge the fact that non-work-related communication enhances work engagement among professionals. This can be effortlessly done by allowing and supporting the use of social media – for formal as well as informal communication.

Keywords

professional social media usage, work engagement, organizational identification, social support

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23.09

CARING SCIENCES, RESPONSIBLE INNOVATION AND ROBOTICS: NEW CHALLENGES FOR NURSING PROFESSION

Ines Monteiro

University of Campinas. Work and Health Research Group, Campinas, Brazil

The changes in healthcare provision are occurring in highly speed, concerning to the technological advancement, the coverage for it, the population access and population aging. The European Commission emphasized some characteristics of artificial intelligence, such as "… improve people's lives, […] *better healthcare, more efficient public administration, safer transport, a more competitive industry and sustainable farming* […]" (EC, factsheet on AI, Dec 2018).

Currently, authors are discussing about how technology will have impact concerning on fundamental care provision (Archibald & Barnard, 2018). Another important view to consider is that "competence in digitalization can enhance healthcare professionals' clinical practice" (Konttila, Siira, Kyngäs et al, 2018).

A comprehensive vision concerning ethical issues is essential, and "ethical governance […] needs to become part of … the whole organization. … Ethical governance, while not a singular solution, will be critical to building public trust in robotics and artificial intelligence" (Winfield & Jirotka, 2018).

This paper is a reflection with the aim to discuss the following research questions: How to harnessing technological changes and improve the healthcare comprehensiveness and coverage? What the paths are for rethink the business model for care, considering the humanistic perspective, and the ethical aspects? How the emphasis on technology (supported as a business model for health and IT industries) can change the healthcare on nursing science perspective?

International literature from a comprehensive knowledge area was assessed.

Acknowledgement
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Keywords

Emerging technologies; Healthcare personnel; Nurse

23.10

THE SEVERITY OF PROFESSIONAL DEFORMITIES IN THE EMPLOYEES OF THE OFFICE OF INTERNAL AFFAIRS OF THE RUSSIAN FEDERATION (ON THE EXAMPLE OF THE ARKHANGELSK REGION)

Yana Korneeva, Olga Kuznetsova, Mariia Korekhova

Northern (Arctic) Federal University, Arkhangelsk, Russian Federation

The reported study was funded by RFBR according to the research project № 19-013-00517. The study of the phenomenon of "professional deformation" including among law enforcement officers is currently relevant. At the same time, there is still no sufficiently clear and generally accepted definition of this concept and the specifics of various deviations in work and the formation of the personality of specialists, in particular, law enforcement officers. To date, the most studied professional burnout syndrome as a manifestation of professional deformation. Changes in personal qualities under the influence of professions have been studied to a lesser degree.

If we consider professional deformations as negative phenomena, then it is considered that an important role in the prevention of their appearance is played by the professional self-consciousness of workers, which is a complex of the person's perceptions of himself as a professional). The role of professional self-awareness is that initially each professional chooses for himself various criteria of professionalism and recreates various images of the ideal "I-professional", which subsequently change under the influence of professional deformations. Comparison of the components of professional self-awareness among law enforcement officers with different levels of severity of professional deformations will allow the development of optimal ways of correcting "professional deformations" through the management of professional self-awareness of law enforcement personnel performance criteria and "I-professional" images.

The purpose of the study is to identify the role of professional self-awareness in the prevention of negative aspects of professional deformation among law enforcement officers, followed by the development and implementation of a set of preventive and corrective measures.

Tasks:

- To study the severity / formation of the components of professional self-awareness and professional personal destruction of law enforcement officers (for example, management of internal affairs).
- To conduct a comparative analysis of the components of professional self-awareness among employees of the management of internal affairs with various professional personality destructions of the individual.
- Develop a typology of professional personal destruction of employees of the Department of Internal Affairs and find the best methods for their diagnosis.

The study involved 49 employees of the Department of Internal Affairs of Arkhangelsk (40 - male, 9 - female) aged 29 to 47 years.
In our work, we have taken as the basis the four-level typology of professional deformations of E.F. Zeer and studied the first level - general deformation.

EF Zeer identified 11 manifestations of professional deformations among managers, including: authoritarianism, demonstrativeness, professional dogmatism, dominance, professional indifference, conservatism, professional aggression, role-playing expansiveness, social hypocrisy, behavioral transfer and overcontrol.

We analyzed the scientific work devoted to the issues of professional deformations of internal affairs workers and identified the following types that were diagnosed in their study: authoritarianism; behavioral transfer (manifestation of the role-transfer syndrome); overcontrol; conservatism; anxiety; irresponsibility or learned helplessness.

The indicated criteria of deformation are reflected in the characteristic features of the personality. To identify these features, we used the ENT method (personal questionnaire of managers), which was synthesized based on the two methods "CPI-434" and "Locus of Control" (version E. Xenophon). And in addition to this method, we developed a questionnaire identifying indicators of all the declared types of deformations, as well as parameters of labor efficiency.

Using cluster analysis, all employees were divided into two clusters according to the severity of professional deformations. Representatives of the first cluster had a higher level of expression of the following types of deformations: authoritarianism; conservatism; anxiety; behavioral transfer; irresponsibility; overcontrol.

Further, to test the hypothesis that the higher the level of seniority of employees, the more pronounced the presence of professional deformations. According to the discriminant analysis, there were no significant differences, therefore, we cannot assert that with increasing length of service among employees.

We identified differences in the severity of various types of deformities among employees of different professional groups.

Keywords

professional deformations; Department of Internal Affairs; working efficiency

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23.11

WHOSE SUPPORT IS MOST IMPORTANT FOR EXPATRIATE? THE RELATIONSHIP BETWEEN OSTRACISM, LEADER-MEMBER EXCHANGE, PERCEIVED ORGANIZATIONAL SUPPORT AND INTENTION TO LEAVE A JOB ABROAD

Jussi Tanskanen, Liisa Mäkelä

University of Vaasa, Vaasa, Finland

Work in today's organizations is made in a social context. In addition to getting work done, social connections at work can be particularly important in their own right especially for expatriates, people who live abroad due to their work. Expatriates might have very limited social networks at the host country and most of their contacts might become from the work context. However, gaining positive social connections from work is not always guaranteed. Workplace ostracism, defined "the extent to which an individual perceives that he or she is excluded and ignored by others at work" is a recognized and pervasive workplace phenomenon and it has found to be linked on turnover intentions and withdrawal from organization. Expatriate's premature return from the international assignment is essential problem for the employing organizations because related cost is high, but it is challenging for expatriates themselves too. Early withdrawal from assignment is even seen as an expatriate failure. Actual organisational turnover is typically preceeded by intention to leave. In this study we explore if ostracism is linked on expatriates' intention to leave their current job abroad.

Furthermore, ostracized employees do not get adequate social resources from colleagues at work, but according to conservation of resources (COR) theory, lack of certain resources, e.g. support from colleagues, can be compensated with other resources. Therefore, it is possible that supervisor and the organization can compensate the negative effects of ostracism by providing support and resources for ostracized employee. Leader-Member Exchange (LMX) refers to the quality of dyadic relationship between supervisor and subordinate. High-quality relationships have found to lead to positive consequences, such as better job satisfaction, well-being and lower turnover intentions. LMX might also compensate the negative effects of ostracism, and moderate the relationship between ostracism and expatriates' intention to leave their job abroad.

In addition to the social support (or lack of it) gained from peers or immediate supervisor, also the support one perceives to gain from the organization (perceived organizational support, POS) has found being an important predictor of turnover intentions. It is also likely that it might have an effect on expatriates' intention to leave their job abroad. Similarly as LMX, POS may also buffer the negative effects of ostracism end therefore we also study its' possible moderating role in a relationship between ostracism and expatriates' intention to leave their job abroad.
This study examines first the prevalence of ostracism among Finnish expatriates and second whether ostracism is connected with expatriation turnover intentions and if high-level LMX or POS can buffer the negative connection.

The sample of expatriates (N=290) was collected as a co-operation with the Finnish trade union TEK (Academic Engineers and Architects in Finland) in 2016. All TEK members who were registered to live abroad (N=1168) were invited to the survey via email. A total of 305 survey responses were returned, but four responses were excluded because the respondents did not work abroad anymore, and an additional 11 respondents were omitted because they did not work while living abroad. Thus, the final sample consist of 290 respondents with response rate of 24.8%.

Descriptive analysis revealed that the level of experienced ostracism at work was relatively low. Regarding experiencing ostracism at work there was no significant differences between those in different situations considering spouse or children, expatriation location, organizational tenures, being assigned expatriate or self-initiated, size of the units or the percentage of expatriates in the units. There was also no gender differences in experiencing ostracism, but under 36 year old employees experienced significantly more ostracism than older employees. In addition, the longer the residential time in the expatriation country the lower the levels of ostracism at work. Furthermore, those in the lowest organizational position experienced significantly more ostracism than those in higher positions.

Linear regression analysis was conducted to examine the relationship between ostracism and expatriation turnover intentions. The results indicated that POS had a significant negative connection to expatriation turnover intentions while the effect of LMX was nonsignificant. Ostracism at work had a strong positive connection with expatriation turnover intentions and the moderation analysis indicated that neither POS or LMX significantly buffered the connection.

The study suggests that particularly those young employees who are new at the location and are at the bottom of the organization face the risk of experiencing ostracism at work. The study suggest that ostracism should be taken as serious risk as being ostracized at work can make expatriates at least think about expatriation turnover and not even high-quality LMX relationship or POS can buffer this negative connection.

Keywords

ostracism, turnover intentions, expatriate

23.12

WORKING SAFELY ABROAD: IMPROVING HEALTH, SAFETY AND WELLBEING IN MOBILE WORK

Päivi Rauramo

Centre for Occupational Safety, Helsinki, Finland

Organisation are becoming more and more international and more commonly expanding business operations to different parts of the world. This means that the staff also needs to travel more. At the same time, companies are well aware of the impact of occupational health and safety work on the success, reputation and on business continuity. Employers and health and safety operators thus face new challenges:

- How to ensure occupational safety when an employee travels to a particularly unsafe country or region?
- How to apply the company's health and safety norms when it operates in a foreign country?
- How to consider different working cultures and environments?
- How to improve wellbeing of the travelling workers?

Operating abroad entails that the organization knows and understands sufficiently well the legislation, cultural factors and special local features in the destination country. There might be significant differences in the norms and ways to work that affect safety. The basic assumption is that the operations abroad are just as safe as in the home country. The management, supervisors, occupational health and safety staff and occupational health care should know what the working environment abroad is like, how the employees travel to and in the destination.

Safety work is based on an action plan which is in line with the safety policy of the organisation. For working abroad, also a country-specific risk analysis is to be carried out as well as an action plan drafted based on the analysis. Oftentimes, you may need the help of a person familiar with the destination country.

In all cases, prevention is the key. A study by Prevent showed that prevention had returned on investment of 2.3USD for every 1USD spent for prevention programs. This underlines not only the necessity but also the business need that risk prevention has for an organisation.

As key people and other staff travel more and more, they also need to spend more time on different means of transportation, at airports and stations, hotels and other places of accommodation in conditions that involve risks and threats to physical safety.

When organizing international safety at work, it is important to consider travel safety risks. Having useful and efficient guidelines for travelling and behaviour means using simple models and providing training to employees. It is particularly important to pass on advice and guidelines based on experience, lessons learned from past trips.

The health and wellbeing of international assignees and business travellers are the responsibility of the employer. It is their duty for care. There is a need to have clear organisational polices and strategies in place that are aimed at reducing any risk and promoting the health of employees abroad. These include defined selection criteria, preparing and educating international assignees on field conditions, enforcing preventive measures prior to the departure – including immunisation and practices to be followed during posting such as malaria prophylaxis, antivector protection, road safety, water and food precautions, safe sex, and how to handle stress.

Extensive orientation to the known and predictable circumstances of the foreign assignment gives the employee and their family a sense of safety, which improves wellbeing both at work in the foreign office and at home with the family. When the family travels abroad with the employee, they should also be given adequate orientation.

Keywords

Travelling, risk management, culture

23.13

PROMOTING EMPLOYEES' AFFECTIVE COMMITMENT AND WELL-BEING THROUGH JOB AND PERSONAL RESOURCES

Shaghayegh Ghaffaripour

Vaasa University, Vaasa, Finland

Promoting Employees' Affective Commitment and Well-being through Job and Personal Resources
In organizational studies cannot overlook the significant role of job and personal resources. Work place resources arouse employee well-being, which are synergetic for organizational commitment. The consequences of having committed employees are beneficial for organization to gain success in competitive advantage. Today organisations become more flexible toward human positive features and job resources. The resources have enough strength to trigger positive outcomes. This study examine how resources at organizational and individual level can emerge employee wellbeing and attract their emotional attachment at workplace. Integration impacts of social, organizational, and personal resources along with employee wellbeing on affective commitment are the main objective of this research. Therefore two sets of data are employed to determine the psychological mechanism are associated in development and continuation of effective commitment inside organization. In first Data set 230 of Iranian oil personnel in 2013 responded to a questionnaire consisting of perceived organizational support, psychological capital, job satisfaction and affective commitment statements. Data analysis in AMOS revealed that perceived organizational support as a source of social support and psychological capital as a personal resource, both have a positive effect on affective commitment, also this impact can be amplify by intervention role of job satisfaction. In this indirect process at first the positive effect of perceived organizational support on psychological capital and then the outcome of both resources, Job satisfaction, which is one of main predictor of affective commitment are examined. The role of psychological capital as a mediator between perceived organizational support and job satisfaction are supported, as well. Second data set are collected from same company in 2015, 200 return questionnaire regarding organization justice as organizational resource and psychological capital as personal resource and quality of work life and affective commitment. Data result determined organizational justice and psychological capital have positive impact on employee wellbeing, quality of work life which act as intervene between organizational justice, psychological capital and affective commitment. Although psychological capital has, a positive effect on effective commitment directly and plays as mediator between organizational justice and quality of work life.

Keywords

Job Resources, Employee Well-being and Affective Commitment

23.14

POSITIVE ASPECTS OF PROFESSIONAL DEFORMATION IN LAW-ENFORCEMENT OFFICERS

Anna Zelyanina

Northern (Arctic) Federal University, Arkhangelsk, Russian Federation

Currently, the exact and common concept of professional deformation, forecasts of this phenomenon in law-enforcement officers, features of professional deformation in law-enforcement officers are lack. The changes of personality traits under the influence of professional activity factors are investigated in a less degree. During reading of scientific papers we also found out that researchers, as a rule, pay attention to negative

things of professional deformation in law-enforcement officers. But professional deformation may have a positive role for successful adjustment to professional activity in law-enforcement officers. It was posttraumatic growth as a positive aspect of professional deformation in law-enforcement officers which was studied by this research. **The goal of the research** is to study and describe positive aspects of professional deformation in law-enforcement officers. **Materials and methods**. This research was carried out by two steps. The first step was made with applying qualitative approach. On the base of analysis of literature data, we have prepared semi-structured interview. The points of interview allowed us find the answers for such research question as: What kinds of positive changes in personality and in life of law-enforcement officers were caused by factors of police services? Purposive sampling and snowball sampling were the main ways of informant selection. We have examined 30 informants, men in middle adulthood, law-enforcement officers, who live and police in Circumpolar region. Data saturation was the main index of sample volume. We applied method of analytical triangulation for internal data validation. Data processing was made with applying the program OpenCode 4.03 [http://www.umu.se/english/research]. The second step was made with applying quantitative approach. We have examined 40 informants and have applied such methods as Demographic Questionnaire, Mississippi Scale, Posttraumatic Growth Inventory (PTGI), Personality Inventories. We have made component analysis. Data analysis was performed by SPSS Statistics 22 version. **Results and conclusions**. We have made conclusions that: 1.The law-enforcement officers' psychic is not afflicted by any posttraumatic stress disorders caused by the calamities in their life. The posttraumatic growth is the phenomenon of positive personality change, caused by the efforts to survive through the most horrible sets of circumstances. 2. Law-enforcement officers have experienced such traumatic events as: car accidents, anguish of body and mind in persons, fires and explosions, sudden death through violence (suicide or murder), assaults, wounds and traumas received in action. Interestingly, every law-enforcement officer has experienced more than one traumatic event in their life. 3.Officers who have experienced traumatic event for a period of police describe three general types of changes: relating to others, personal strength and appreciation of life. 4. We have found out seven forecasts of posttraumatic growth in law-enforcement: the emergency preparedness, the support from side of family and friends, the examples of other people, optimism, belief in God, level of education, counseling. 5. The high level of adjustment abilities and absence of personality pathology in the beginning of police officer's career is the factor of positive aspects of professional deformation in future.

Keywords

Professional deformation; law-enforcement officers; posttraumatic stress

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23.15

STRESS AS A RISK FACTOR FOR VOICE DISORDERS IN TEACHERS

Hanna Vertanen-Greis[1], Eliisa Löyttyniemi[1], Jukka Uitti[2], Tuula Putus[1]

[1]University of Turku, Turku, Finland. [2]Tampere University, Tampere, Finland

Stress is mentioned as one of the major hazards for the voice of professional speakers like teachers (Vilkman 2004). However, only a few researchers have studied stress as a risk factor for voice disorders. This paper presents population-based data on Finnish school teachers collected using a questionnaire. The objective of this study was to evaluate stress as the risk factors for voice disorders.

A cross-sectional study was conducted among primary and secondary education teachers across Finland (N=1 198). As inclusion criteria, only full-time teachers working in primary and secondary schools were included. Voice disorders were assessed with a seven-item voice screen with symptoms like hoarseness and voice breaks (Simberg et al. 2001). Stress at work was measured with a validated single-item question recorded on a 5-point Likert scale (Elo et al. 2003). The response rate was 33%.

The 12-month period prevalence of voice disorders was 54% in Finnish school teachers. Of the teachers, 81% were female, and they suffered more voice disorders than males (p=0.0004). The gender-related differences of the prevalence in voice disorders in teachers are well-known and caused by physiological reasons, such as the size of the larynx (Dejonckere 2001).

Rather or very much stress at work was reported by 25% of the teachers, being the most significant explanatory variable with a 3.6-fold risk as regards voice disorders. The association with voice disorders was even stronger with stress than asthma (OR 2.7), which is known as a serious risk factor for voice disorders. Stress was not highlighted in the questionnaire, i.e., it was not mentioned in the title or in the instructions. Therefore, the association between stress and voice disorders can be considered a very clear result of the questionnaire.

Noise was reported by 49% of the subjects and it was significantly associated with both voice disorders and stress in all the subjects. Our findings support the results of Simberg et al. (2005); they found that the complaints about noise increased from 40% to 54% in 12 years. As the authors mentioned, misbehaving of pupils may be one of the possible reasons to the noise and stress.

We did not find any difference between voice disorders and the professional categories (class / subject / special education teacher). However, noise

was associated with the professional categories indicating that special education teachers reported less noise than their colleagues (p = 0.0152). As regards to the region of Finland, teachers from the southern city reported more noise than their colleagues in the other cities (p=0.0046). This may refer to the fact that the mean size of the teaching groups was slightly higher in the schools of the southern city than in the other cities. The difference was more present in the secondary schools than in the primary schools (17.3 vs. 16.4) (Kumpulainen 2017).

The strength of our study is that it was conducted with a well-defined questionnaire concerning both voice disorders and stress at work. Our sample was representative in terms of the distribution of sex, age, and the profession. Further, our sample was large and the results were consistent with previous studies concerning the key findings with a very low amount of missing data from the questionnaires. However, self-reported data may suffer from recall bias. Similarly, item interpretation is a significant source of error.

Our results hypothesize that stress may be a multi-dimensional problem associated with various risk factors and result in an even more urgent risk of voice disorders in teachers than estimated. Longitudinal research is needed to investigate the causality between voice disorders and stress among teachers, taking also account of the possible interaction between stress and indoor air quality. In addition, it is recommended that in the occupational health care of teachers consideration should be given to the fact that voice disorders and stress may have a multi-dimensional association.

The present study is based on the epidemiological investigation by H Vertanen-Greis in Voice Disorders are Associated with Stress among Teachers: A Cross-Sectional Study in Finland, published online in J Voice Nov 2018.

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Keywords

Stress, Voice disorders, Teacher

23.16

MEN AND WOMEN SHOULD WORK TOGETHER – NOT APART

Katrin Olafsdottir[1], Arney Einarsdottir[2]

[1]Reykjavik University, Reykjavik, Iceland. [2]University of Iceland, Reykjavik, Iceland

In this paper we examine whether men and women show more job satisfaction and commitment and perceive more justice at work, and whether differences exist when they work together or when they work in female or male dominated workplaces. Cross-sectional data, collected at two levels, firm (N = 71) and employee (n=1026) is used. Women score overall significantly higher than men on job satisfaction and commitment. Employees in male-dominated workplaces score lower than employees in both female-dominated workplaces and gender-balanced workplaces, and significantly so in terms of perception of justice. Women in female-dominated or gender-balanced workplaces are most content at work while men in male-dominated workplaces are least satisfied.

Keywords

Job satisfaction, gender-balanced workplaces, commitment

23.17

A SYSTEMATIC QUALITATIVE REVIEW OF FACTORS RELATED TO ENTREPRENEURS' WELL-BEING

Salla Ahola[1], Jaana-Piia Mäkiniemi[1], Sanna Nuutinen[1], Kirsi Heikkilä-Tammi[1], Jaana Laitinen[2], Tuula Oksanen[3]

[1]Tampere University, Tampere, Finland. [2]Finnish Institute of Occupational Health, Oulu, Finland. [3]Finnish Institute of Occupational Health, Turku, Finland

Entrepreneurs are generally more satisfied with their work than salaried employees (Benz & Frey, 2008; Hytti et al., 2013). On the other hand, entrepreneurs' work is characterized by many demands, such as uncertainty, time pressure, and the amount of work (Dijkhuizen et al., 2016). However, there is only limited understanding of different demands and resources that may hinder or enhance entrepreneurial well-being. Therefore, in our systematic qualitative literature review, we aim to find out which factors predict well-being at work among entrepreneurs.

We chose seven electronic databases covering research in health, well-being, and entrepreneurship (e.g., Medline, PsycINFO and Ebscohost Business Source Elite). The search from these databases included terms related to entrepreneurs (e.g. entrepreneur, self-employed) and well-being (e.g. work engagement, burnout, job satisfaction), and it targeted articles written in English and published in peer-reviewed scientific journals. We planned the procedure for the information search together with information specialists of a university library. The information specialists conducted the search in January 2018, and it yielded altogether 1870 articles (after removing the duplicates).
We first screened the articles based on their title and abstract and then we read the full texts of those articles that passed the initial criteria for inclusion. After several rounds of screening, we further refined and detailed the inclusion criteria, and identified the following criterion as the most relevant: that the article answers to the question "which factors predict entrepreneurs' well-being at work?" Another relevant inclusion criterion was that the article included an empirical quantitative analysis at least at the level of a regression analysis explaining an experience of well-being at work by some effective factors. Therefore, qualitative studies were excluded.

Approximately 50 articles matched these inclusion criteria. We further refined the scope of our review to include only articles with outcomes more directly related to work (work engagement, job satisfaction, burnout, and stress), resulting in 36 articles. Therefore, we excluded articles with more broad outcomes (e.g. psychological well-being or mental health).

Job satisfaction was the most commonly studied concept of entrepreneurial well-being, followed by burnout and stress. The research design in the articles was typically cross-sectional, although there were also some longitudinal studies. Some studies used data that came from random samples, whereas others used convenience samples. Studies used a variety of measurement instruments to measure each concept of well-being at work.

We identified four main types of factors predicting entrepreneurial well-being: 1. individual factors (e.g. psychological capital, self-efficacy), 2. social factors (e.g. occupational loneliness, work-family conflict, social support), 3. job conditions (e.g. role ambiguity, workload, learning opportunities, autonomy), and 4. factors related to running a company (e.g. business competition, business performance).

Our preliminary results indicate that different types of job demands and resources are relevant for entrepreneurial well-being. However, the generalizability of the findings is somewhat limited by the use of non-random samples in many studies and by the variety of measurement instruments used to measure each specific concept of well-being at work. Future studies should further investigate the factors that contribute to entrepreneurial well-being using preferably random samples, validated measurement instruments, and other than cross-sectional designs.

Keywords

well-being at work, entrepreneurs, systematic qualitative review

23.18

HEALTHY FOOD STRATEGIES EFFICIENCY AMONG NURSING AND HEALTH PROFESSIONALS: A RANDOMIZED CONTROLLED TRIAL

Anne Cristine Rumiato[1,2], Ines Monteiro[2]

[1]State University of Londrina University Hospital , Londrina - Parana State, Brazil. [2]University of Campinas. Work and Health Research Group, Campinas - Sao Paulo State, Brazil

Introduction

Obesity has become a worldwide problem, because it affects different social classes and age groups.

Aim

To verify the effectiveness of the mobile phone via text message usage (SMS) in nursing and health professionals compared to standard intervention.

Methods

A randomized clinical trial - RCT - (1:1), triple blind, was performed among employees of a public university hospital in Brazil, recruited by invitation for a lecture about healthy eating and subsequent selection of participants. The workers were divided into two groups (n=40 each one): intervention (who received SMS, individual guidance and healthy eating booklet) and control (individual guidance and healthy eating booklet) for 90 days. The subjects were weighed, measured and their diet was evaluated.

Results

There was a change in body measurements, probably associated with the change in the amount of food intake (calories / kg). Changes in weight and waist circumference were observed between the beginning and the end of the study. There was statistical significance when correlate, through the multiple logistic regression model (GEE), the variables: current work ability, type of work contract, compared health, physical activity, compulsive eating, soda consumption and Waist Circumference (AC) with Body Mass Index (BMI).

Conclusion

The use of text messages and posters about healthy eating, in addition to individualized nutritional counseling to participants, can be a means to promote worker empowerment in choosing their daily diet and one more tool against obesity and overweight. Although dietary changes are not ideal, we observed changes related to body measurements, such as waist circumference and the sum of body fat. Acceptance of group text messages shows a new path that can be used as part of a learning process and motivation of workers to change their practices, not only diet, but also as promotion of physical activity and healthy lifestyles.

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Keywords

randomized clinical trial; healthy food strategies; health professionals

24.01

THE WORK-LIFE BALANCE FRAMEWORK: EVALUATING ITS APPLICABILITY TO REAL WORK IN THE VIRTUAL WORLD

Tracey Warren

University of Nottingham, NOTTINGHAM, United Kingdom

This paper addresses the focus of the Work2019 'Work and Family' stream on the complex relations between work and other spheres of life. As the call for papers states, digitalization affects daily life at work and in other life spheres, raising new questions as to how work is intertwined with those other life spheres. In that context, the paper revisits the ubiquitous concept of 'work-life balance'. It critically analyses the multi-disciplinary mainstream work-life balance framework to gauge its validity for research into the contemporary organization of real work as new questions are stimulated by developments within the virtual world. Technology has long been vaunted as holding the potential to either improve working lives or intensify their degradation, with diverse ramifications for different social groups (by gender, class, ethnicity, age, etc). Contemporary developments within the global platform economy, including the growth of gig work, mirror those historically polarised forecasts on the opportunities offered up by technological change. This paper interrogates the ramifications of the virtual world for our everyday working lives, looking specifically at the potential of the virtual world for work-life balance.

The paper launches by scrutinising the work-life balance framework. It pinpoints the ways in which the concept of work-life balance is simultaneously contentious yet widespread across many disciplines that study how work is intertwined with other life spheres. The paper then asks which life spheres do 'work-life' studies engage mostly with, concluding that time is a fundamental dimension across the literature. Both academic debate and associated policy solutions to work-life 'imbalance' customarily centre around an understanding of work-life as being broadly time-based, and more specifically, work-life balance as having 'enough time'. The paper's position is that time is indeed vital for work-life balance but the heavy emphasis in academic discussion and policy development only on reducing work-time to improve work-lives is becoming obsolete as evidence grows of mounting work-time underemployment among the workforce and associated financial insecurity experienced by workers. Moreover, it is also argued that conceptualising work-life imbalance as largely about having 'too little time' is a class-based endeavour: it is an approach that prioritises the work-life challenges reported most often by financially-secure middle class workers while neglecting the work-lives of those employed in precarious and/or working class jobs.

In the context of a heavy focus on time as vital to a balanced work-life, the paper revisits debates on the potential of technology, and digitalisation specifically, for easing temporally-rooted work-life imbalance. It shows how digitalisation has been promoted as bringing with it exciting and novel time-based ways of working that can improve the work-lives of workers. Positively, then, the virtual world is lauded for offering up sought-after opportunities for flexible forms of work-time, enhanced time autonomy for workers, and a fundamental challenge to rigid, male-centric norms of a '9-5' work day and a 'full-time present' worker. The paper shows how gig work, for example, is pitched to workers specifically as a way to facilitate better balanced work-lives. Yet the paper asks how that 'sell' aligns with the 'on-demand' workforce that is simultaneously promised to employers. Negatively, then, the paper asks whether the virtual world intensifies already time-pressured work-lives, problematically further blurring the boundaries between paid work and non-work, and reducing rather than enhancing workers' autonomy over their ways of working.

The paper ends by assessing the range of strategies that are used to promote work-life balance in mainstream organizations and asks whether strategies that are well-established under the work-life policy umbrella can inform emerging campaigns to improve real work in the virtual world. It concludes by returning to reflect on the potential of the work-life balance framework for rethinking the normalised workplace structures, cultures and practices that are being challenged by digitalization.

Keywords

work-life balance, time, money

24.02

WHO CAN REJECT THE "IDEAL WORKER" NORM? FATHERS, MOTHERS, AND OTHERS IN THE BIOTECH BRANCH IN TRANSITION ACROSS ACADEMIC AND INDUSTRY CAREERS

Heather Hofmeister[1], Anne-Kathrin Kronberg[2], Matthias Revers[3]

[1]Goethe University, Frankfurt, Frankfurt / Main, Germany. [2]University of North Carolina, Carlotte , Charlotte, NC, USA. [3]University of Leeds, Leeds, United Kingdom

The "ideal worker" norm (Williams 2000) is based on the idea that paid work is the primary, if not only, sphere of responsibility for employees and contains expectations for long work hours, relocation, work travel, arranging other responsibilities around work, or avoiding those responsibilities altogether (Kelly et al. 2010). Ideal worker behavior signals intense paid work devotion and occupational or professional commitment (Blair-Loy 2005). The juxtaposition to the ideal worker is the marginalized caregiver whose contributions to the household and society remain largely invisible.

The power of this schema for contributing to the underrepresentation of women in paid work, especially in better-paying, more prestigious positions such as leadership and in science fields, may function in both of two ways. One explanation is that the ideal worker concept creates statistical discrimination by holding the assumption that a woman (but not a man) has child-care responsibilities or tied-mover or tied-stayer obligations to a (male) partner and therefore cannot live up to the ideal worker requirements (Hewlett et al 2008; Lincoln et al. 2012). The other explanation is that, rather than an externally discriminatory process, the "ideal worker" norm appears undesirable to more women than it does to men and creates a strong impetus for women's self-selection out of top careers, such as in science (Pollack 2016, Preston 2004). The "ideal worker" norm holds men and women captive to labor market obligations in specific kinds of jobs and creates pressure on family life.

Using interviews with 22 postdocs in the dynamic biotech branch on the threshold to their permanent positions in 2016 and follow-up interviews in 2018 with 16 of these postdocs, we examine the degree to which postdoc scientists originally rejected or accepted the "ideal worker" model (long hours, exclusive devotion), what messages they got from their advisors, and how their stand towards this ideal played a role in their career expectations. Who is most likely to accept or reject the "ideal worker" model? We supplement the findings with seven interviews we conducted with the supervisors of these postdocs.

We find that most postdocs wished for lives in 10 years' time that do not look like the lives of their postdoc supervisors. Gender and parenthood were strong mediating factors. The fathers in the sample seemed most willing to reject the ideal worker model, and mothers in the sample seemed most likely to try to adapt to it or at least hide their resistance. We expect that these responses have to do with the amount of power fathers and mothers feel they have in their work institutions and the amount of control they feel they can take with their career trajectories (fathers more, mothers less). But even though these postdocs are among the best and brightest in a cutting-edge industry, these scientists for the most part do not see themselves as holding negotiating power to demand the space for family or to create their ideal futures, at least not until they themselves have tenure. By then, some of them wonder if they will have become indoctrinated to the "ideal worker" norm. Our research may help predict the likelihood of change or continuation of labor market inequalities in one scientific field along gender and family lines.

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Keywords

ideal worker norm, parenthood, career trajectory

24.03

THE RELATIONSHIP AMONG FAMILY-TO-WORK SPILLOVER, WORK ENGAGEMENT AND CREATIVITY IN JAPANESE R&D EMPLOYEES

Hideki Shimizu-Tanaka

Kyoto University of Advanced Science, Kyoto, Japan

Objectives

The objective of this study is to investigate the effects of enrichment between family and work domain on R&D workers' work engagement and creativity. In the uncertainty surrounding firms, they have been dictated to enhance their employees' creativity, productivity and positive outcomes. Also, in the knowledge economy, creativity is increasingly becoming important in achieving success in global business. Creativity has been regarded in previous studies as one of the key drivers of innovation and competitive advantage (e.g., Kugut & Zander, 1996; Nahapiet & Gjoshal, 1998; Amabile et al., 1996). Engineers in research and development play an important role in the creation of knowledge. Since Japan is an island country with limited natural resources, creative contributions that R&D engineers make is indispensable for Japan to maintain a competitive edge.

For producing creativity as one of positive outcomes, work engagement is one of the important factors. Work engagement is related closely to workers' career not only in workplace but also other dimensions, such as family life. Needless to say, our lives are consisted by work-domain and family-domain.

Also, work-family is a popular issues not only at "kitchen table" (Allen, 2012) but in academic. There is, however, little research on the effects of work-family interface on work engagement and its outcome. Therefore, this study focuses on the effects of family-to-work spillover on work engagement and creativity in the context of job demand-resource (JD-R) model (e.g., Schaufeli & Bakker, 2004; Bakker & Demerouti, 2007).

Data

We collected the data from 649 R&D workers working in Japanese firms. In this questionnaire, we asked R&D workers about their workplace climate, work-life interface, creative behavior, and so on. We do statistical analyses by using that data. Work engagement is measured by using the Japanese translation of Utrecht Work Engagement Scale (Schaufeli, Bakker, & Salanova, 2006, Shimazu et al., 2008), and family-to-work spillover is measured by using the scales in Grzywacz & Marks (1999). Also, creative behavior is measured in referring to previous research (e.g., Scott & Bruce, 1996; Morris et al., 2011).

Methodology

To analyze the effects of family-to-work interface on R&D workers' work engagement and creative behavior, we draw the JD-R Model (Schaufeli & Bakker, 2004; Bakker & Demerouti, 2007) to framework the relationship among family-to-work Spillover as one of resources, their engagement and creativity.

Key Findings

The results by multiple regression indicate that (1) family-to-work spillover has positive impact on R&D workers' work engagement, and (2) both family-to-work spillover and work engagement have positive effects on their creative behavior.

Conclusion

Using JD-R Model, we analyze whether the effects of family-to-work spillover and work engagement on R&D workers' creativity. The results show that family-to-work spillover is one of the antecedent factors to enhance R&D workers' work engagement, consequently, R&D managers have to pay their attentions on R&D workers' enrichment of both work and family life.

Keywords

Work-Family Interface, Work Engagement, Creativity

24.04

WHAT'S IN A LABEL? MOMPRENEURSHIP AMONG THE HUNGARIAN MINORITY FROM ROMANIA

Réka Geambasu

Babes-Bolyai University, Cluj-Napoca, Romania. Hétfa Research Institute, Budapest, Hungary

In spite of promising trends of improving gender equality in the labour market, women still face a wide range of challenges throughout their working careers. Gender gaps in employment, activity, wages, as well as gender segregation of work and women's limited access to leading positions are all signs of the "stalled revolution" of gender equality. Contrary to liberal feminist expectations women's equal or even higher level participation in education has not increased women's access to male dominated sectors, domains of activity or managerial jobs. Women are still more likely to work in lower prestige, worse paid jobs than men.

It is not unequal human capital that explains gender differences in the labour market, but to a greater extent the persistence of women's double burden. Women's contribution to the unpaid and largely invisible household chores and caring tasks is higher than men's and as such it both limits women's labour market aspirations and renders them "unreliable workers" in employers' eyes. While women's family duties range from child rearing to caring for older parents, across their entire eadult lives, motherhood and the early years of child caring are the most critical for their careers. These years coincide with the most important career decisions, as well as with the accumulation of social and symbolic capital necessary for career advancement. "Motherhood penalty" is a widely acknowledged mechanism that prevents women from reaching equality in work.

Motherhood is associated with several disadvantages in the labour market: women raising at least one child under 6 years are characterised by lower employment rates. At the same time mothers are more likely to be employed part-time, to have lower wages than men performing comparable jobs. However, it is not only employers' discrimination that affects women's status, but also the practice to factor in future motherhood in career decisions is leading to choices for more flexible, worse paid, lower prestige, female dominated jobs.

For the past decades policy makers have regarded flexible and part-time employment as one of the best solutions to tackle lower employment among women with children. Besides labour market difficulties, part-time work was expected to address low fertility levels, as well. That is, the possibility to work less than 30-40 hours per week was seen as a means to better accommodate paid and unpaid work, thus, encouraging both return to the labour market and willingness to have (more) children. Nevertheless, data have shown that while it can indeed address labour market and work-life balance issues among higher educated professional women, lower status women are more likely to be relegated to the so-called "mommy track" characterised by poorer conditions and perspectives and high level of segregation.

While data do not point to a significant re-negotiation of household responsibilities between men and women, if neither full-time, nor part-time employment proves to be an adequate solution for mothers, entrepreneurship promises the flexibility and rewards women with small children are seeking. In general, entrepreneurship is commonly regarded as a means to compensate lack of or limited access to labour market or higher level positions in work for members of minority groups (immigrants, ethnic groups, young people or women). Several studies address the role of entrepreneurship in providing paths of upward social mobility to members of minority communities.

Within the group of women entrepreneurs mom(mum)preneurs form an increasingly visible and proactive group. Given their forms of organisation, some authors consider them a nascent social movement. While mothers who embark upon entrepreneurial activities have existed before, the self-identification and need for social organisation is nevertheless new. As in the case of other social phenomena, literature still lacks a unitary definition of the term, however most approaches define mompreneurs as (usually professional) women with younger children who start a business in order to improve their work-life balance. From a feminist point of view, however, mompreneurship is one of the three tracks society offers mothers: full time motherhood, "leaning in" or mompreneurship, while none of these really contributes to a more equal share of household tasks between men and women.

In our paper we study the group of mompreneurs formed by member of an ethnic minority, Hungarians living in Romania. As the population of Hungarian mompreneurs is largely unknown in terms of social and demographic characteristics, and also difficult to approach, an on-line questionnaire was used during the Fall of 2018, mainly through social media to reach potential respondents. In total 224 women filled in the questionnaire. We focus on understanding the motivations and outcomes of mompreneurship among the female member of an ethnic group. At the same time, benefitting from the availability of comparable survey data among Hungarian female and male entrepreneurs from Romania we attempt to understand what determines the use of a separate concept for this subgroup of women entrepreneurs.

Keywords

mompreneurship, gender inequality in the labour market, work-life balance

24.05

TOWARDS FAMILY-FRIENDLY ENGINEERING WORKPLACES? PERCEPTIONS AND USAGE OF PARENTAL LEAVE BY HIGHER ENGINEERING PROFESSIONALS IN FINLAND

Susanna Bairoh

Hanken School of Economics, Helsinki, Finland. Academic Engineers and Architects in Finland TEK, Helsinki, Finland

The underrepresentation of women in technology, or in STEM (Science, Technology, Engineering, Mathematics) has puzzled researchers for several decades. Despite numerous studies and intervention efforts, the gender gap in engineering and technology persists. One of the reasons often cited in international literature is the difficulty (either expected or experienced) of combining a career in technology with having family responsibilities. Engineering workplaces have even been described as hostile to women. The situation of fathers in engineering workplaces has received much less attention, although it is generally acknowledged that family-friendly policies and practices benefit both mothers and fathers.

Is the Scandinavian welfare state a friend or a foe for the career-oriented woman? While the welfare state has traditionally been considered the best friend of the working mother, some scholars have argued that there is a trade-off between women's occupational achievements and the family-friendliness of jobs. The dual-earner model typical in the Scandinavian countries has been suggested to institutionalize work interruptions of women to such an extent that it has negative impact on women's wages and career opportunities. On the other hand, other researchers have sought to counter these claims. While the debate continues, pressure mounts in Finland to modify the current parental leave system. Sharing parental leaves more evenly has been named as the primary means of promoting equality in working life. Therefore, fathers are urged to take longer periods of parental leave which is now predominantly used by mothers.

Higher engineering professionals constitute an interesting target group for exploring parental leave in the Scandinavian context. How do women and men in male-dominated work environments perceive their opportunities for taking parental leave? What kind of experiences do they have? These are questions covered in this paper which presents results from a survey conducted in October-November 2018 among members of TEK (Academic Engineers and Architects in Finland). In this paper, I will focus on respondents with a Master's degree in Engineering/Technology (i.e. higher engineering professionals, n=4745). These recent findings will also be compared to those of a similar study conducted by TEK in 2013.

Keywords

parental leave, engineering professionals, gender differences

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24.06

REGULATIONS OF TEMPORAL AVAILABILITY AT WORK FOR ENGINEERS IN FRANCE AND FINLAND AND THE CONSTRUCTION OF TIME BALANCE EQUATIONS

Maëlezig Bigi

Centre d'études de l'emploi et du travail, Noisy-le-Grand, France

Comparing engineers' relationship to their working time in France and Finland, we reveal different ethos of professional temporalities. In the French case, the dominant ethos values availability while in the Finnish case, the construction of temporal sovereignty prevails. This latter ethos is based on the evolving nature of professional investment, workload sharing, and the definition of legal working time in hours. In France, the persistence of an extensive availability norm throughout the career, facilitated by the increasing use of contracts in days rather than hours, is detrimental to the careers and the control of social time, especially for women.

The comparison is based on two sets of interviews, 16 conducted in France and 11 in Finland. It shows in France the persistence of a norm of extensive availability over the entire career, which is based on the delegation of family and domestic tasks. In Finland, availability seemed to play less as an indicator of professional investment and the different arrangements around working time (part-time, long weeks, short days) aimed to construct, in an adaptive way, the balance of individual time equations. The reversibility of temporal availability according to constraints and aspirations outside

the paid work constitutes a second aspect of this differentiated ethos of professional temporalities.

Indeed, the usual weekly working time, which is shorter in Finland, probably places less stress on these different personal equations. But it is above all this ethos, as an organizing principle of practices, that exerts its influence on the collective regulation of the workload. This regulatios is based on the one hand on the sharing of work and, on the other hand, on the definition of legal working time in hours (37.5 hours per week and 7.5 hours per day). This legal definition is embodied in the local notion of “normal hours”, that sets the norm of working time availability. In France, the normal working time of engineers was not imposed during the construction of the category, and is less and less so by the law. On the contrary, with the rapidly expanding system of “forfaits jours”, counting the working time in days rather than hours, the law liberates productive organization from the hourly definition of working time.

Keywords

working time; regulation ; gender equality

P.01

DIGITAL HEALTH SERVICES AND TELEMEDICINE TECHNOLOGIES IN OCCUPATIONAL HEALTH SERVICES

Sari Nissinen, Johanna Koroma, Heli Koskinen

Finnish Institute of Occupational Health, Helsinki, Finland

Introduction: Social and health services reform is accompanied by the digital services to patients, as well as the effective telemedicine technologies among health care professionals. These enable the development of digital health services for patients. Earlier research has mainly focused on citizens’ experiences of digital health services. According to these research patients’ preparedness to use digital health services are good, and their attitudes to digital health services are positive. There are scarcely any earlier studies on health care professionals’ experiences of digital health services and telemedicine technologies in Occupational Health Services (OHS).

Methods: The purpose of this study was to examine the use of digital services and telemedicine technologies in OHS. The data was gathered in February-March 2018 using an electronic questionnaire. The survey targeted occupational health physicians, nurses, physiotherapists, and psychologists. There was a total of 357 respondents.

Results: More than half (57%) of respondents though that their skills in using telemedicine technologies are good. The most used application was the online meeting system (84%). The respondents were asked what digital health services and telemedicine technologies they use, and how often they use them. The most frequently used were health counseling via telephone (82%), electronic questionnaires before health examinations (56%), and workplace surveys (64%) at least every month. However, 90% of the respondents had never carried out patients’ health examinations and 88% the medical care visits over an online meeting system. Chat service for medical care patients was also rare (90%).

Discussion: The results indicate that the variation of the digital services used in OHS is limited. A big part of the respondents doesn’t use digital health services in patient care at all. However, their skills of using telemedicine technologies were good at least with those technologies, which are the most used by OHS professionals. Thus, it is very important that OHS professionals receive adequate information, training, and their opinions are listened, when digital health services and telemedicine technologies are developed and implemented in practice. In the future it would be interesting to investigate the patients’ experiences of digital services in OHS.

Keywords

eHealth, remote healthcare, occupational health services

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