Understanding the Social Media Use in Tourism: An Affordance Perspective

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Abstract. Social media are revolutionizing the way travelers prepare, experience, and complete the whole travel processes. Based on the technology affordance theory, this paper proposes an integrated affordance framework with the aim of understanding the functions that afford travelers' social media use behavior in tourism. The empirical results indicate there are three categories of technology affordances in whole travel stages. Information gathering and collaboration constitute the first category of affordances, and they usually exist at pre-travel and in-travel stages. Additionally, self-presentation, content sharing, visibility, interaction, and persistence affordances are second category affordances, and they often occur at in-travel and after-travel stages. Whilst the communication and triggered attending affordances are seen as third category affordances, as they occur at all travel stages. This research contributes to the literature on the affordances of social media use in the whole processes of travel and offers practical implications for managing social media in tourism.

Keywords: Social Media Use · Travel Stages · Tourism · Technology Affordance Theory

1 Introduction

Social media are used worldwide, it is estimated that there are over 2.95 billion social media users globally [1]. Past decades, social media are broadly used in tourism industry, by both organizations and individuals, to facilitate the development of such industry. It is reported that 94% of travel agents in the US using Facebook for marketing [2], 57% of Finnish travelers use social media to update content about their holiday when they are traveling [3]. Nine percent of travelers from the Asia Pacific region stated that their travel was inspired by information published on social media [4]. The roles of social media in tourism have attracted a great deal of attention from IS researchers and practitioners. Prior literature has demonstrated that social media exert important impacts on tourists' behavior, for instance, the content shared via social media can affect tourists' decisions to make a travel plan or share own experience on social media [5, 6]. The influence of social media on tourists' behavior have been recognized to occur in the whole travel processes: before travel, during travel, and after

travel [7]. However, the understanding of social media use in the whole processes of travel is still fragmented. Prior studies focused on certain behavior that occurred at certain stages of travel, for instance, making the travel plan before travel or sharing experience after travel. At different stages of travel, tourists have different needs, and their social media use behavior might differ. It is unclear how the functions or capabilities of social media can meet tourists' needs at different travel stages. Thus, a comprehensive understanding of the relationship between social media capabilities and tourists' social media use actions in the whole travel processes is required.

To address the above research gaps, this study employs the technology affordance theory to explore the symbiotic relationship between travelers' activities and the technology capabilities of social media in the tourism context [8]. By applying the affordance perspective, the travelers' social media use behavior and the affordances of social media are considered as units of analysis, this could be helpful to gain insight into how social media afford each particular need of travelers at different travel processes correspondingly.

This study focuses specifically on the implications of social media affordances for travelers' whole travel processes, namely, pre-travel, in-travel, and after-travel. First, the features and affordances of social media were explored; nine distinctive social media affordances are identified in this study, which can support travelers' actions at different travel stages. Then, the impact of affordances at different travel processes are explored through bridging the travelers' needs and actual actions. As a result, the affordances of social media are unevenly satisfied travelers' needs at pre-travel, in-travel, and after-travel stages. Finally, three categories of social media affordances in tourism are discussed. In doing so, this research could shed light on the affordances of social media in all stages of travel. Besides, this study could facilitate the understanding of technology affordance theory in different contexts. Finally, this research could provide practical advice to tourism operators on how to enhance the social media functional design and social media adoption by travelers.

2 Theoretical background

2.1 Social media use in tourism

Social media are defined as "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content" [9]. Social media have been considered as important tools for travelers to seek information, communication, present themselves, share experience, and interact with others. The previous research has highlighted the functions of social media in personal traveling. For tourists, social media have been found to be important information sources before the trip [10, 11]. Previous studies found that the decision making of travelers was influenced by online reviews [12, 13]. Furthermore, tourists also use social media to share information during the trip and to share their experience via posting photos and writing reviews after the trip [14, 15]. Recently, researchers also pay much attention to the effectiveness of social media

influence in tourists' behavior [6, 16]. However, few studies have attempted to examine the affordances of social media of tourists' behavior in travel. Specifically, at pre-travel, in-travel, and after-travel stages, social media plays different roles for tourists. Thus, it is important to investigate what social media can afford for tourists from the whole processes of travel.

2.2 Technology affordance theory

The affordance is rooted in the work of ecological psychologist James Gibson [17], who used affordance to refer to the relationship between an animal and an environment. Then, Gaver [18] adopted the concept of affordance into Information Systems field as a new concept of technology affordance, refer "the properties of the world defined with respect to people's interaction with it". Regarding the different conceptions of technology affordance, the conception from Leonardi, Vaast [19] were employed in this study to help the understanding of the use patterns of social media in tourism as they provided a comprehensive understanding of social media affordance and emphasized on the interaction between people's goals and a technology's material features.

The technology affordance has been proposed as a theoretical lens for studying social media in the IS field. For instance, at the organizational level, Treem, Leonardi [20] introduced four affordances of social media in organizations, namely, visibility, editability, persistence, and association. Majchrzak et al. [21] theorized metavoicing, triggered attending, network-informatied associating, and generative role-taking as the affordances of social media affect individuals' engagement in the knowledge conversation. Additionally, prior research has studied the technology affordances based on diverse social media platforms. For instance, DeVito et al. [22] explored six mainstream social media platforms: Facebook, Twitter, Instagram, Tumblr, LinkedIn, and Snapchat. They defined three layers and seven affordances: the self (presentation flexibility, content persistence, and identity persistence), other actor (content association, feedback directness), the audience (audience transparency, visibility control). Some researchers have tried to synergy the affordances of social media from a needs-affordances-features perspective [23]. For example, they use the affordance of self-presentation to unify similar affordances offered by other researchers: rendering [24], generative role taking [21], identity [25]. In their study, they proposed 12 different technology affordances (self-presentation, content sharing, interactivity, presence signaling, relationship formation, group management, browsing others' content, meta-voicing, communication, collaboration, competition, sourcing) from diverse social media platforms, which could be widely used to analyze the social media use behavior.

However, only a few researchers explored social media affordances in tourism context. For instance, Cabiddu et al. [26] identified the different features of high-performing and low-performing hotels to recognize three affordances, persistence engagement, customized engagement, and triggered engagement. Additionally, Gretzel [27] leveraged the social media affordances to understand the social media activism in a tourism context, she provided plenty of examples to illustrate how social

media affordances facilitate the actions of tourists. In this research, the affordances of social media in the tourism context will be discussed. It is believed that the affordances of social media are diverse at different travel stages, particularly in the situation of multiple needs from tourists. In sum, the technology affordance theory as an overarching lens will be employed to uncover travelers' different social media use patterns at pre-travel, in-travel, and after-travel stages.

3 Methodology

Understanding the relationship between affordances of social media and travelers' particular travel goals demanded rich data about the travelers' actual engagement with social media platforms at different travel stages. Therefore, a qualitative research method was employed in this study.

The data were collected by interviewing users who had used social media in their travel processes and have travel experience in the last 12 months. The data were analyzed by iterating between the data and the different technology affordances provided by previous research.

3.1 Data collection

The data was collected via semi-structured interviews, and the participants were recruited by sending interview invitations through email and WeChat (a Chinese multi-purpose messaging, social media, and mobile payment app developed by Tencent). In addition, the snowballing technique was used in this research. The interviewees could invite their friends to join in if their friends interested in this study. The interview was conducted via email or WeChat call after the respondents agreed to participate. Before the interview, the interviewees were informed of the aim of this study, the confidentiality of the collected data, privacy protection of this study, and the researcher's contact information. As the recruited interviewees were from different countries and spoke different languages, they were asked to choose the interview style (email interview or online face-to-face interview via WeChat call) and the interview language (Chinese or English). The interview was initiated by asking the interviewee to describe the types of social media they used and the use purposes. Then, the interview was proceeded by asking them if they have social media use experience for travel purposes and continued with their specific use purpose. Then, the researcher followed with the questions of social media use experience at pre-travel, in-travel, and after-travel stages. To gain details, the interviewees were encouraged to describe their purposes, and social media use behavior with examples. After the interviewees responded to the questions, further questions were asked to make sure the interviewees' meaning of specific questions. Finally, the whole record of the interview was sent to each participant to check if the document recorded their opinions correctly [28]. Additionally, each participant had received a random red packet on WeChat (from 0 to 30 RMB) or a small gift (about 3-5 euro) as a thank-you gift.

The interviews, which conducted in Chinese, were translated into English for data

analysis. Two researchers who speak both English and Chinese checked the interview text to decrease the risk of bias in the transcription.

Overall, 21 individuals participated in the interview, and all the collected data were used to analyze the social media users' behavior in travel stages. On the whole, nine participants were male and 12 were female. Six of them aged between 17 and 21 years, six aged between 22 and 26 years, nine aged between 27 and 31 years. As all the respondents were university students or researchers, the respondents represented a high education group in this study. Regarding the social media platforms, the respondents indicated that social media were widely used by them; 81% of respondents reflected they used WeChat, 52.4% of them said they used Weibo, and 42.9% of them showed they used Facebook. Additionally, some travel-specific social media platforms were mentioned by respondents, such as Mafengwo (a Chinese social community, provides travel guide and travel-related products), Red Book (a Chinese social medium and e-commerce platform, provides diverse information about lifestyles), and Dianping (a Chinese review platform, similar with TripAdvisor). Table 1 shows the sociodemographic and descriptive characteristics of the respondents.

Table 1 Sociodemographic and descriptive characteristics of the respondents.

	Characteristics	Number (%)		Types	Number (%)
Gender	Male	9 (42.9%)	Social media	WeChat	17 (81.0%)
	Female	12 (57.1%)		Weibo	11 (52.4%)
Age	17-21	6 (28.6%)		Facebook	9 (42.9%)
	22-26	6 (28.6%)		QQ	7 (33.3%)
	27-31	9 (42.9%)		Mafengwo	7 (33.3%)
Education level	Undergraduate	7 (33.3%)		WhatsApp	6 (28.6%)
	Graduate	7 (33.3%)		Instagram	5 (23.8%)
	Postgraduate	7 (33.3%)		Red Book	4 (19.0%)
Occupation	student	7 (33.3%)		Zhihu	3 (14.3%)
	researcher	14 (66.7%)		Dianping	3 (14.3%)

3.2 Data analysis

I conducted data analysis of the interviewees' descriptions intending to identify the possibilities afforded them to accomplish their goals. The analysis unit was each respondent's social media use purposes and the corresponding social media functions. The data analysis processes were divided into two steps.

Firstly, each respondent's social media use purposes or behavior were extracted from their descriptions. Then, these purposes or behavior were marked with different social media features, such as sharing, posting. Next, these features were compared with the functions described by the social media providers to crosscheck the specific functions. For instance, the respondents mentioned one of the features of Facebook was provided for them to join groups; correspondingly, the developer of Facebook described one of its functions as connect with people who share your interests with

Groups. Therefore, this function was confirmed as a function of social media which would be discussed. According to the data analysis, I identified the following main social media functions from the interviews (see Table 2).

Table 2. Social media functions described by respondents.

Social media functions	Posting contents, sharing contents, updating status/pins (PC/SC/US); Browsing, watching videos shared by others (BR/WV); Join a group / joining and creating, cooperating with other, handling activities (JG/CO/HA); Personal message, chatting, conversation, connection; (PM/CH/CON); Displaying, appealing (DIS/APPE); Pushes activities to connections, lists of "friends" or connections, visible in specific place (PATC/VP); Building, creating, participating (BU/CR/PAR); Reviewable, recordable, archival (REV/REC/ARC);

Secondly, the extracted social media functions were used to confirm social media affordances related to this study. Totally nine social media affordances were extracted from the interviews. Initially, two affordances of social media were extracted from the respondents' function descriptions. They illustrated that social media afforded them from gathering diverse information about destinations to completing travel-related tasks online. For instance, respondents were able to browse the travel information, make travel plans with their companions, or buy attraction's gate tickets on WeChat or TripAdvisor. Therefore, information gathering and collaboration affordances could be confirmed in this study. Prior researchers, such as Halpern, Gibbs [29], Volkoff, Strong [30], Leidner et al. [31], had discussed these two affordances.

Next, five other affordances of social media were extracted from the interviews. When they described the in-travel and after-travel stages, they proposed that social media afford them to post, update, share content on those platforms, for instance, update their status during traveling. They also illustrated that social media afford them to choose to whom and (or) to which platform they share their travel-related content. Furthermore, after they shared the content, social media might provide platforms for interaction between them and their friends as well as record their travel memory. Within these social media function, five other affordances, namely, self-presentation affordance, content sharing affordance, visibility affordance, interaction affordance, and persistence affordance, were extracted [20, 24, 26, 31].

Then, two social media affordances were confirmed by the respondents' description and these two affordances occur at all stages of travel. The respondents stated that social media afford them to keep connect with their travel members or other connections. The social media also provided very appealing pictures, which trigger their travel intention or intend to visit or not visit an attraction. Based on these descriptions, communication and triggered attending were considered as another two affordances social media could provide to their users [21, 23, 26]. Table 3 shows the nine social media affordances and their descriptions.

To deepen the understanding of the data, the nine affordances of social media were

scrutinized by backtracking to the respondents' descriptions again. A three layers and eight by nine matrix was made to illustrate the correspondence of functions and affordances at different travel stages. Each response was evaluated, and then both the numbers of positive responses and the total available responses were filled in the corresponding grid. For instance, eight respondents mentioned they use social media to communicate with their travel partner(s) before travel, and there are 19 available responses at this travel stage. This result was marked as 8/19 at the pre-travel stage at the Communication row and PM/ CH/ CON (Personal message, chatting, conversation, connection) column.

Table 3. Social media affordances and their descriptions.

Affordances	Description	References
Self-presentation	Self-presentation affordance refers to the possibilities for individuals to create and demonstrate the personal image and identity by using a variety of content formats and styles.	[22, 23, 32]
Content sharing	Content sharing affordance refers to the possibilities for users to share and distribute content to others in variety of content formats and styles.	[23, 25, 33]
Information gathering	Information gathering affordance refers to the possibilities for users to search, view, and filter information provided by others in a social media setting.	[23, 27, 29, 31]
Communication	Communication affordance refers to the possibilities for users to communicate with other users directly in a social media setting.	[22, 23, 25, 30]
Collaboration	Collaboration affordance refers to the possibilities for users to cooperate and handle interdepend activities in a social media setting.	[23, 32, 34]
Triggered attending	Triggered attending affordance refers to the possibilities of instigating users′ attention to other content in a social media setting.	[21, 26]
Visibility	Visibility affordance refers to the possibility for users to determine what content linked to them is visible to what audiences in a social media setting.	[20, 22, 32]
Interaction	Interaction affordance refers to the possibilities for users to interact with others or artefacts immediately in a social media setting.	[24, 26, 31]
Persistence	Persistence affordance refers to the possibilities for users to access the original display over time in a social media setting.	[20, 22, 26, 27]

4 Results

Based on the analysis of collected data, all the eight social media functions mentioned by respondents and the nine affordances of social media extracted from the interviews

at different travel stages were presented in Table 4.

Table 4. An overview of social media affordance at different travel stages.

Travel stage	Affordance dimensions	Social media functions							
		PC/ SC/ US	BR/ WV	PM/ CH/ CON	JG/ CO/ HA	DIS/ APPE	PATC/ VP	BU/ CR/ PAR	REV/ REC/ ARC
Pre-travel	Self-presentation								
	Content sharing								
	Information gathering		13/19						
	Communication			4/19					
	Collaboration				8/19				
	Triggered attending					3/19			
	Visibility								
	Interaction								
	Persistence								
In-travel	Self-presentation	10/19							
	Content sharing	10/19							
	Information gathering		6/19						
	Communication			5/19					
	Collaboration				3/19				
	Triggered attending					1/19			
	Visibility						3/19		
	Interaction							2/19	
	Persistence								1/19
After-travel	Self-presentation	14/18							
	Content sharing	14/18							
	Information gathering								
	Communication			1/18					
	Collaboration								
	Triggered attending					1/18			
	Visibility						6/18		
	Interaction							2/18	
	Persistence								5/18

(Notes: PC/SC/US = Posting contents, sharing contents, updating status/pins; BR/WV = Browsing, watching videos shared by others; PM/CH/CON = Personal message, chatting, conversation, connection; JG/CO/HA = Join a group / joining and creating, cooperating with other, handling activities; DIS/APPE = Displaying, appealing; PATC/VP = Pushes activities to connections, lists of "friends" or connections, visible in specific place; BU/CR/PAR = Building, creating, participating; REV/REC/ARC = Reviewable, recordable, archival.)

4.1 Affordances of social media at pre-travel stage

At pre-travel stage, information gathering, communication, collaboration, triggered attending affordances were extracted. Information gathering affordance widely existed at pre-travel stage. Most of the respondents stated they preferred to search for travel information before travel and social media were important platforms to gather the information. However, respondent 2 and respondent 19 contradicted this opinion; they argued that even though social media afford a large amount of information, the quality of information on social media platforms was questionable. Communication affordance happened when the interviewee thought it was valuable to consult others for some travel suggestions. For example, respondent 12 stated it is possible to communicate with the travel agency via WeChat directly. Collaboration affordance occurred at pre-travel stages for providing the possibilities to travelers to cooperate and deal with these travel issues on platforms. The participants reported that social media afford them to make travel plans or related decisions, and to buy cheaper gate tickets in advance. However, participant 3 and participant 21 denied the collaboration affordance of social media regarding the travel plan making, they argued instead of using social media to make a travel plan, the official website of the attraction and professional travel blog website might be more helpful. Additionally, triggered attending affordance also appeared at this stage, respondents mentioned social media might inspire them to travel by providing some initial ideas about travel (see Fig 1).

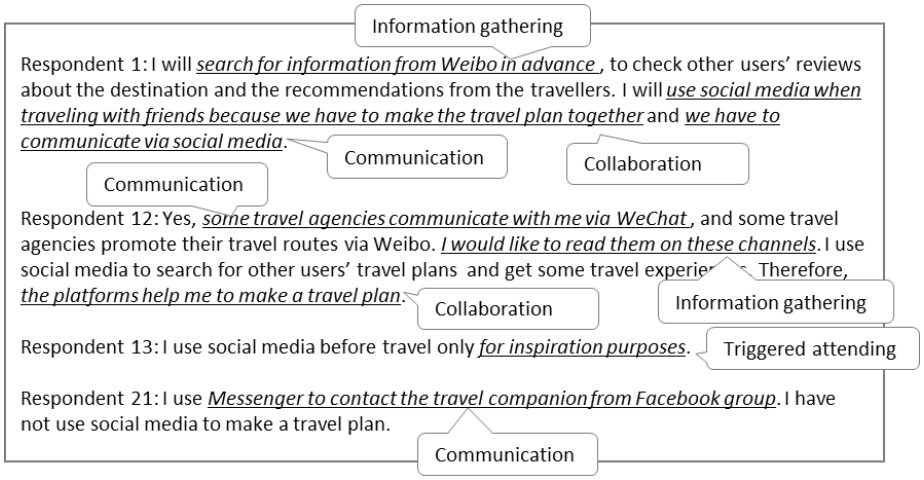

Fig 1. Evidence of social media affordances at pre-travel stage.

4.2 Affordances of social media at in-travel stage

At in-travel stage, all of the nine affordances mentioned in the data analysis section have occurred, namely, information gathering, collaboration, communication, triggered attending, content sharing, self-presentation, visibility, interaction, and persistence affordances.

At this stage, the travelers still have information searching, and collocation needs; therefore, social media also provide possibilities for them to use such platforms to actualize their needs. Self-presentation and content sharing affordances usually appear together, because when the travelers share something with others, they display themselves to others at the same time. Respondents stated social media were appropriate platforms for them to share their travel experience and feelings. However, participant 16 refused to use these two functions during the travel because he did not usually travel for leisure and he did not like posting pictures of his trip. Additionally, when participants shared content on social media, some of them also have other considerations. For example, participant 3, participant 10, and participant 20 emphasized when they shared on social media, they also considered who could read the content and to what extent. Thus, visibility affordance occurred at this stage. Besides, interaction affordance started appeared at in-travel stage, respondents stated they use social media to participate in the activities provided by the attraction and interacted with their friends when they shared the same travel topic. Persistence affordance also occurred at this travel stage as one of the respondents reported that she would like to pin her location on WeChat to help her keep the memory easier (see Fig 2).

Regarding the communication and triggered attending affordances, they depend on the users' perception, not depend on the travel stages change. Thus, these affordances may continuously arise when travelers have related needs and take some kind of action.

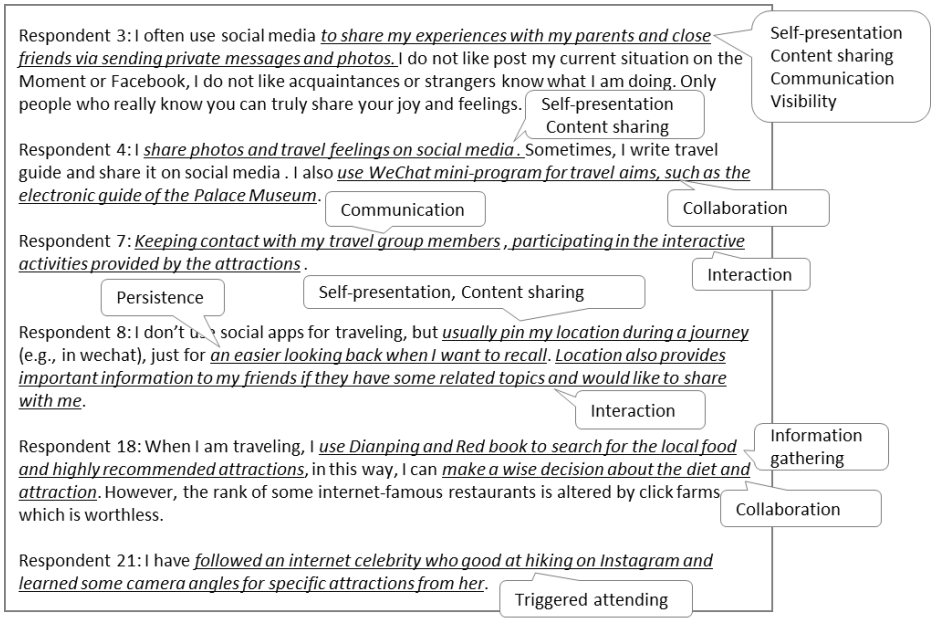

Fig 2. Evidence of social media affordances at in-travel stage**.**

4.3 Affordances of social media at after-travel stage

At after-travel stage, except information gathering and collaboration affordances, the other seven social media affordances were recognized. Information gathering and collaboration affordances only appeared at the beginning stages of travel, because the travelers needed information and would like to collaborate with others to prepare for a better travel experience. However, when the travel ended, the travelers inclined to pay more attention to self-displaying and experience sharing. For instance, travelers have a constant interest in sharing content after they finished the travel, thus self-presentation and content sharing affordances of social media could satisfy such kinds of needs. Whilst respondent 5 indicated he would not share anything more about his trip because he thought this behavior may bother his connections on social media. Compared with the in-travel stage, when completed the travel, the interviewees seemed to focus heavily on how to control the audience of their shared content and how to record their travel experience. Therefore, visibility and persistence affordances kept on occurring at this stage. Two of the respondents stated that they would like to interact with their friends concerning their experience after travel. For instance, participant 19 claimed that she wished her friends could press "like" to her post. Besides, communication and triggered attending affordances still arose. As discussed at the in-travel stage, these two affordances supported the travelers' needs for social media use attention and travel attention, not limited by time or space, but their perceptions (see Fig 3).

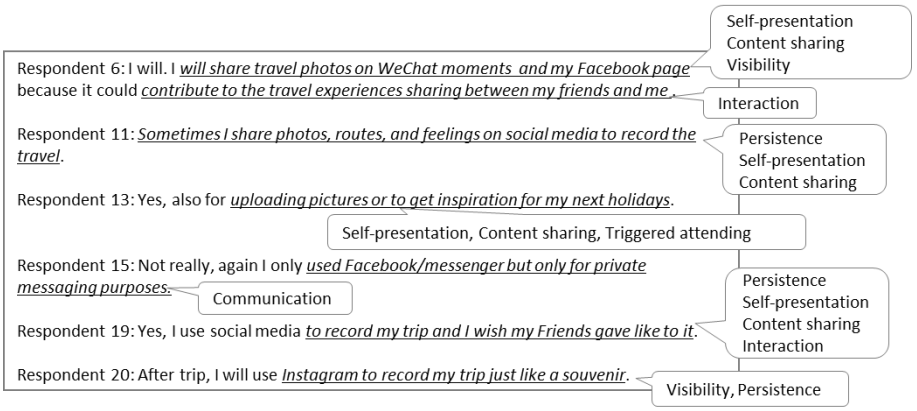

Fig 3. Evidence of social media affordances at after-travel stage**.**

5 Discussion and conclusion

The objective of this study is to achieve a comprehensive understanding of what social media functions can afford tourists' diverse needs at different travel stages. In particular, I explore nine affordances of social media at pre-travel, in-travel, after-travel stages.

5.1 Discussion

Findings reveal that tourists take advantage of a variety of social media affordances in fulfilling their travel demands in different travel stages. At pre-travel stage, travelers concentrated on searching travel information, making travel decisions, communicating with travel members or friends who have similar travel experience. These affordances of social media afford tourists to be well prepared for their upcoming travel. These findings concur with previous research information searching plays a significant role in social media to meet travelers' needs at pre-travel stage [35]. However, the results also show social media are not able to provide very effective travel information and support because of the information overloading at pre-travel stage. This finding is in line with Park, Jang [36], they also stressed this problem in their research. Regarding the triggered attending affordance of social media, there are pieces of evidence indicating tourists are easily seduced by the pictures or videos of attractions, and then plan a trip. Mariani et al. [37] showed similar research results with this.

At in-travel stage, travelers had various needs supported by social media. Self-presentation and sharing content affordances are the most frequent affordances that appear at this stage as the willingness of presentation and sharing raised from this stage. Information gathering and communication affordances are still important at this stage, as some tourists prefer to update their travel plans and keep connections with their family or friends when they are in travel. The research from Kim, Tussyadiah [38] supported these findings. Additionally, collaboration, triggered attending, visibility, interaction, and persistence affordances are occurred at this stage, though Karahanna et al. [23] had discussed these affordances as well, however, they discussed them from a general social media use perspective rather than a tourism context. These findings need more empirical research to prove.

At after-travel stage, travelers focused on self-presentation and self-recording. The affordances of social media transfer from basic information gathering to information editing, sharing, and belonging. These affordances changes by the travel stage changes and the travelers' needs change. Still, the self-presentation and content sharing affordances are found in this stage, on the one hand, it indicate after-travel stage is a significant stage for tourists to present and share their travel experience, on the other hand, it proves not all tourists are interested after-travel sharing. Regarding the visibility and persistence affordances, many tourists have been found to take care of their sharing audiences, platforms, types (texts, videos, or pictures)and sharing time span (permanent or temporary), This result is similar to Treem, Leonardi [20], they had discussed the DMOs' also attach importance to visibility and persistence affordances of social media for advertising and sales promotion. The findings also reveal the interaction affordance of social media after travel. Tourists prefer to interact with their friends in terms of the travel experience in this stage, especially when they have traveled to the same attraction and have some similar travel experience. These findings contribute to the understanding of tourists' social media use in the whole travel processes and enhance the tourists' satisfaction via the facilitating of social media. Figure 4 illustrates the change of affordances at three different travel stages.

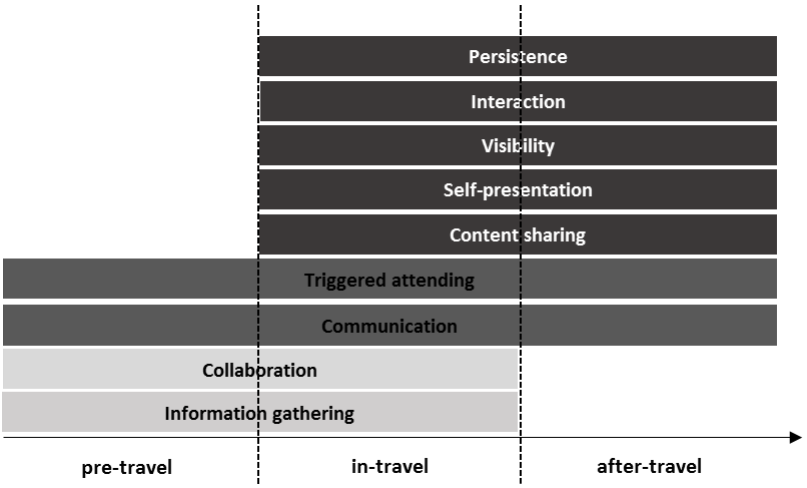

Fig 4. Framework of social media affordances at different travel stages.

5.2 Implications

This study makes several theoretical implications. First, this work enriches social media use in tourism literature by disentangling nine different affordances of social media in tourism. The nine affordances include information gathering, collaboration, communication, triggered attending, content sharing, self-presentation, visibility, interaction, and persistence. The research findings show that technology affordance theory is a good theoretical framework to explain social media use patterns in tourism. Second, this study extends the technology affordance theory by dividing social media affordances into three categories to explain the social media use patterns in tourism. The explored affordances manifest that tourists have multiple travel needs, and their needs are diverse in different travel stages. Some affordances appear at pre-travel and in-travel stages and disappear at after-travel stages. Some affordances appear at in-travel and after-travel stages as they are sequent affordances, they only occur when the actual travel begins. These findings indicate that the affordances of social media widely exist in tourism and influence the tourists' social media use from the whole travel stages.

The research findings in this study also bear practical implications. This study explores the social media use in tourism from a comprehensive perspective, covering social media use at stages of pre-travel, in-travel, and after-travel. Thus, for many social media service providers, they could perfect their social media functional design and service provided processes to meet their users' needs accurately. Besides, practitioners should at least find a way to measure the level of affordances effectively to promote social media use for the existing and potential users.

5.3 Limitations and future research

There are several limitations to the current study. First, the study collected data via email and internet-call interviews instead of physical interviews, which may not offer in-depth insights on explaining the affordances of social media at all travel stages. Thus, further study may use other methods for collecting data, such as face-to-face interviews. Second, the interview groups are quite limited, such as the occupation of the respondents, the age ranges of the respondents, and the total interviewed persons. Therefore, more diverse research groups could be invited to participate in this kind of research to offer strong evidence of social media affordances in satisfying travelers' needs in tourism processes. For instance, increase the occupation diversity, enlarge the respondents' age ranges, and add the numbers of interviewees. In the future, more research could be done to focus on the geographic differences between travelers from the affordance perspective. Third, travel types were not discussed in this study. Whilst the types of trips may influence travelers' social media use, thus may be more studies that could be conducted to investigate the impact of different travel types on social media affordances in the future.

5.4 Conclusions

This study enhances our understanding of social media use in whole travel processes by introducing technology affordances perspective and explaining three categories of affordances of social media use. This empirical results show that information gathering and collaboration are concluded as the first category of social media affordance, which only occurred at the pre-travel and in-travel stages. Content sharing, self-presentation, visibility, interaction, and persistence affordances are second category affordances, which arose only at the in-travel and after-travel stages. Additionally, communication, and triggered attending affordances are third category affordances, which occurred at all travel stages, These findings provide researchers with an improved understanding of social media use patterns in whole travel processes and the diversity of affordances. In addition, the results will be beneficial for tourism operators and social media designers, as they understand their customers' behavior from an integrated perspective.

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