Digital ethnography as a way to explore information grounds on Twitter

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Abstract: Information grounds are social settings where information, people, and place come together to create information flow within a physical environment (Karen E. Pettigrew, 1998). Information grounds also facilitate the opportunistic discovery of information within social settings created temporarily by people gathered for some purpose other than seeking information, but the social environment stimulates spontaneous information sharing (K. E. Pettigrew, 1999), such as in hair salons, doctor's waiting rooms and other public places.

Professional and scholarly use of social media is a rapidly emerging area of research. In this regard, qualitative analysis of data gathered from Twitter is a relatively unexplored area of Library and Information Science (LIS) research. This paper details the results of a qualitative study of Twitter using digital ethnography, in order to investigate the use of Twitter by IT professionals in forming communities of practice. This study is relevant to Library and Information Science (LIS) research as LIS professionals are part of the IT community of practice. This study used *information grounds theory* (K. E. Fisher, 2005) to explore Twitter as an online information ground.

The research used online observation – conceptualised here as online ethnography or digital ethnography – and interviews to collect data. The online observations helped the researcher to understand the norms and culture of the participants along with patterns of behaviour. Interviews were used to understand the information grounds of the virtual environment through the participants' individual perspectives and their information experiences. A total of eleven participants were interviewed after a total of 734 tweets from these same participants were downloaded and analysed. Both interview and Twitter data were analysed using *constructivist grounded theory* (Charmaz, 2006).

The findings highlight a variety of information sharing types, the role of information sharing in professional contexts, and the influences of Twitter on communication and social engagement, including a counterintuitive finding that professionals use Twitter not so much to seek or share information as much as to seek out a network of like-minded people. The significance of this study is in providing a fundamental understanding of the

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ways in which social media is used for professional reasons. It also proposes a systematic, qualitative data collection and data analysis approach to future research around Twitter and social media in general. This contribution not only helps LIS researchers, but can also help information professionals in the use of social media for professional purposes.

Keywords: Qualitative research, digital ethnography, constructivist grounded theory, information grounds, professionals, Twitter

1. Introduction and background

Information grounds are social settings where information, people, and place come together to create information flow within a physical environment (Karen E. Pettigrew, 1998). Fisher, Landry, and Naumer (2007) highlight that information grounds are public social settings where people visit to carry out everyday life activities such as eating and hairdressing, but they end up engaging in the seeking and sharing of information. Information grounds also facilitate the opportunistic discovery of information within social settings created temporarily by people gathered together for some purpose other than seeking information, but the social environment stimulates spontaneous information sharing (K. E. Pettigrew, 1999). Fisher et al. (2007) emphasise that the characteristics of the people-place-information triad has a significant influence on how information grounds are dynamically created in certain spaces. A key difference between information grounds and social media is this: in social media, people are not bound by any physical space or even time. In contrast to this, in traditional information grounds people are bound by their physical environment more or less synchronously (Narayan, 2013). This research hypothesises that Twitter sphere shares many of the characteristics of information grounds. The only difference is that information, people, and online platform (space) come together to create information flow in a much less restrictive and asynchronous manner, which enables effective information sharing across any number of physical spaces.

Twitter is an adaptable tool that allows people to modify it to meet their needs. It can also enable two-way communication in real time for collaborating, sharing, seeking and disseminating information. Twitter helps people to build professional relationships, advance career paths, and develop online communities (Lassi & Sonnenwald, 2010). Twitter provides a space for collaborative learning and research (Bunce, Partridge, & Davis, 2012), while the limitation of its 140-character limit per message creates brevity of communication among collaborators (Miller, 2008). This limitation has resulted in the creative and effective use of Twitter messages, and hence Jansen, Zhang, Sobel, and Chowdury (2009) posit that Twitter is a powerful *online word-of-mouth* for information dissemination. Hadjerrouit (2011) states that Twitter has transformed the way researchers conduct inter-disciplinary collaboration. Twitter provides a sense of belonging and a sense of 'place' – a place to be in, a place to go to, a place to gather, or a place to be seen in – or *information grounds* (Narayan, A Talip, Watson, & Edwards, 2013 – and so it is a good

platform for professional purposes such as forming communities of practice (Narayan, A Talip, Watson, & Edwards, 2013).

Communities of practice are "a set of relations among persons, activities, and the world over time and in relation with other tangential overlapping communities of practice" (Lave & Wenger, 2000, p. 171). Wenger (2000) highlights that communities of practice offer a 'mode of belonging' and significantly influence the individuals' social learning system. Brown and Duguid (2001) emphasise that communities of practice are formed in resistance to management to create new knowledge amongst a group of information workers who are in the same field of work. Wenger, McDermott, and Snyder (2002) argue the management acts as a key player to foster informal horizontal groups to form communities of practice in the organisation. Cox (2005) believed that the ambiguities of the term communities of practice enable it to be formed for different purposes in academic and practice. In the digital age, social media provide a place that enables a connection between people, activity, and the world, thus enabling and facilitating a community of practice. In this case, the world is referred to as the 'virtual world' where the presence of individuals in particular spaces is being replaced by a text-based environment and computer mediated communication (Garrison, Anderson, & Archer, 1999). Limited research exist that investigate how IT professionals experience and develop their communities of practice on social media and how it's significant to their day-today activities professionally. This current project aims to fill this research gaps.

We used a digital ethnography approach to understand Twitter phenomena and information grounds in the virtual environment. Digital ethnography approach helps the researcher to track the participants online in cyberspace and observe their behaviours and interactions on social media. Online observation was used to detect 'information behaviours', which are the observable actions of the participants. Information behaviour is the totality of human behaviours with reference to information, including "unintentional or passive behaviours (such as glimpsing or encountering information), as well as purposive behaviours that do not involve seeking, such as actively avoiding information" (Case, 2002, p. 5). Online observation was suitable for the study because the researcher could harness it to understand the interactions of IT professionals in the online space. The investigation was followed up by interviews in order to obtain an in-depth knowledge of the participants' thoughts, feelings, and motivations. Information experience is defined as the way in which people experience or derive meaning when they engage with information within their everyday lives (Bruce, Davis, Hughes, Partridge, & Stoodley, 2014). Through the interviews, the researcher could understand the participants' own perspective and experience regarding their 'information experience' encountered on Twitter.

The data was analysed using a constructivist grounded theory approach; the method is an inductive research approach, and it is suitable for field research. The strength of such an approach is that it allows the researcher to observe and interpret the rich text data of the tweets and the interviews in a qualitative manner to gain insights. However, not all the aspects of the constructivist

grounded theory were appropriate for this study. For example, this study did not conduct 'co-construction of data analysis' on the usage information of the participants; it is not practical, or in most cases even possible, to schedule additional time from participants by requesting them to code their own data.

The literature reveals that no existing empirical study has investigated the notion of social media as a 'place' similar to the physical space described in the information grounds theory, although Narayan (2013) proposed the conceptual framework for the same. In this regard, the comprehensive analysis of data gathered from Twitter is an exploratory direction for Library and Information Science (LIS) research. This study attempts to also understand the lifecycle of such online information grounds and explores the best approach to carry out a study on this phenomenon. The main research question to be addressed by this study is:

What factors contribute to the emergence and growth of, and continued participation of IT professionals in online information grounds?

2. Digital ethnography

Traditional ethnography requires researchers to be part of the community they are studying. A digital ethnography approach allows researchers to use online observations to follow the participants online and observe their behaviours and interactions on the social media. Nowadays, the distinction between online and offline environments is becoming less useful, as these two spaces complement each other (Hoare, Buetow, Mills, & Francis, 2013). Garcia et al. (2009) highlight that digital ethnography "involves watching text and images on a computer screen rather than watching people in offline settings" (p. 58) as the Internet "still provides direct contact with the social world the ethnographer is studying, since participants in that setting communicate through online behavior" (Garcia et al., 2009, p. 58). Online observation allows the researcher to examine the social interactions and information flow of the preliminary study of participants. Based on online observations, the researcher can make decisions about how and what to observe and take note of issues that may require additional attention. Online observation is an inductive method that helps the researcher to understand the phenomenon through "nuanced aspects of use" on the Internet and on social media (Garcia et al., 2009, p. 58). The idea is that theories, hypotheses and insights should emerge from the observations, so that they are grounded on the observed experience. This may involve a process of progressive focusing: the observer begins to sort out the peripheral from the central factors involved, and directs his/ her attention to looking at key contexts for the vital evidence. A constructive grounded theory coding helps in this process.

Twitter was chosen over Facebook and other platforms because Twitter is more open than Facebook and less restrictive in terms of access; Twitter does not require mutual sharing (Al-Hadidi, 2011), so one can look at anybody's posts unless there is a specific block. Facebook generally connects friends or people who know each other, whereas Twitter connects friends and strangers with common topical interests. This research aims to study Twitter in order to learn if

this phenomenon is different from traditional methods of information communication in the context of IT professionals using Twitter for professional purposes. The participants were selected carefully to ensure credibility and reliability of data. First, the researcher examined the participants' accounts to determine whether they have been using Twitter for at least six months and whether they tweeted or re-tweeted information that was relevant to his/her stated work area. For example, if a participant worked on information security, he/she may have shared information about a new technology for security or may have had a conversation about it on Twitter. Secondly, the researcher checked each participant's timeline to ensure all of them shared information related to his/her work more than about personal interests. Sometimes, these participants also shared information related to entertainment news, current affairs, weather, or sports along with some personal context. Thirdly, the researcher contacted participants who agreed to participate in this study to confirm their job titles and determine whether they were working in IT or IT-related fields. However, this study did not authenticate the participants' job designations and their job descriptions because it was out of the scope of this research, and took the participants' public identity as IT professionals for face value.

The researcher obtained consent from eleven participants to 'follow' and 'download' their interactions on Twitter for a set window of two weeks between 1st September 2013 and 31st December 2013. Their tweets were downloaded with their permission. The research team faced some challenges in downloading the tweets in the allocated timeframe for each participant. This difficulty occurred because the Twitter application program interface or API was always changing and because of the limited number of tweets that could be downloaded. However, the research team managed to download up to 3500 participant tweets using the TinyTweet application, which was developed by the research team specifically for this research. This application enabled the researchers to download tweets. According to the literature, two weeks of daily observations is sufficient to study a person's typical daily interactions and the related information flow, barring any extraordinary events (Lakshminarayanan, 2010). Garcia et al. (2009) argue that online observations allow researchers to experience the day-to-day activities within the studied context and the perceived significant connections between people, information and social interactions online. Thus, online observations were essential to this study that seeks to understand the interactions of IT professionals in the online space. After the observation phase, participants were interviewed about their Twitter activities in person or over the Skype video at their convenience. The interview questions were designed based on the initial analysis of the online observation data and tailored to the individuals' Twitter activities.

Eleven semi-structured interviews were conducted with the IT professionals, which included two pilot participants. The data gleaned from the interviews provided rich and valuable insights for this study. Interviews lasted between 30-60 minutes; they were transcribed verbatim, and manually coded for data analysis. These semi-structured interviews were used to understand the participants' 'information experience' through their own individual

perspectives. Since the observations only provide 'observable' behaviours and not the participants' own thinking and experiences, this method added an extra layer of richness to the data. The participants were asked to keep their Twitter accounts open in front of them during the interviews to demonstrate some of their answers if they talked about a technical or online process. The interview questions were based on information behaviour perspectives, comparing and contrasting the physical and online spaces based on the concepts from the information grounds theory and the experience of using Twitter for professional purposes. Table 2-1 shows the interview protocol and the rationale of the interview questions are summarised below:

Table 2-1 Interview question

	Interview questions	**Purpose**
	Icebreaker questions	
1	How long have you been using Twitter?	To examine the individuals' experience of using Twitter, and what first motivated them to use Twitter for professional purposes.
2	Who do you follow on Twitter? Why?	To investigate responses to the concept of information grounds tied to community of practice on online spaces.
3	Could you explain why you decided to first use Twitter?	To understand the experience of use of Twitter from the start until to date.
	In-depth interview	
4	How did you connect, interact, and share with people before social media?	To examine communication practices
5	Can you tell me your experience of using physical mediums and online platforms for professional communication?	To discover the difference and similarities between physical and online spaces, that may/may not influence professional communication.
6	How do you use information you find on Twitter?	To examine how social media facilitates information discovery and serendipitous information seeking, along with information use.
7	How do you validate the information (i.e. check the authentication of the resources)?	To examine the notions of reliability, credibility, value, and usefulness of the information and information flow in online spaces.
8	How useful is Twitter for you?	To investigate the functionality and reliability of Twitter for professional purposes.
9	Can you give a recent example of	To investigate individuals

	Interview questions	Purpose
	why you decided to post something to Twitter?	information behaviour within the space. • This question was designed to discover individuals' activity on Twitter based on their Twitter feeds.
10	How do you use the features on Twitter? (I.e. hashtag, search, trending, direct message, and block/unblock people)	To investigate the influences of Twitter features on their activities within Twitter.

2.1. ructing grounded theory techniques

A total of 734 tweets from eleven participants were downloaded and analysed using a constructivist grounded theory approach. Their tweets were coded, categorised, and constantly compared between participants, and between codes, which enabled the findings from the data to emerge organically. The connection between tweets and participants' information behaviours furnished the researcher with resources to develop interview questions. The researcher used these questions to gain insight into the participants' personal experiences and to examine the extent to which they use Twitter for professional networking rather than just being a part of their job description (e.g. social media policy maker, social media manager, etc.). The interviews were transcribed verbatim, and manually coded by the researchers using the constructivist grounded theory approach; this process not only helped identify existing themes from the literature, but also discovered new emergent themes from the data until the emergent categories were saturated.

Coding processes for this research were conducted manually; the researcher went through 734 tweets from participants and 11 interview transcripts. The researcher did not use any automated text software in analysing the data. By way of this technique, the researcher read the data line-by-line and could see the emergent pattern easily, and even though it was time-consuming, the outcomes were satisfying. Using the manually coded data, the re-searcher also understood the phenomena clearly and reduced data redundancy. In order to ensure the connections between the findings, the researcher used the 'memoing technique' to constantly compare between various points of data as well as between the data and theory. Memoing is one of the ways to sort emergent codes and categories for constant and continuous comparison in the grounded theory; this method helps "theorising write-up of ideas about substantive codes and their theoretically coded relationships as they emerge during coding, collecting and analysing data, and during memoing" (Glaser, 1998, p. 177). The researcher utilised memoing to register ideas about the on-going study that might eventually pop up in the analysis, thereby not excluding any serendipitous emergence of theoretical connections. Constant comparisons in the grounded

theory helped the researcher to generate categories, which resolved the main concern; inter-coder reliability was employed within the research team to ensure the reliability and validity of the data. Intra-coder reliability assures "the consistent manner by which the researcher codes" (Hoonaard, 2008, p. 446). The grounded theory procedures followed in this Twitter study are detailed below; they are based on the *constructive grounded theory* approach (Charmaz, 2006).

1. Initial and focused coding was conducted; the researcher read the 11 participants' tweets and interview transcripts line-by-line. Then, the emergent findings were categorised and comparisons were constantly made between data and data as well as between data and theory.
2. In the initial coding, the researcher looked for indicators of categories of behaviours, named them, and colour-coded them on a spreadsheet.
3. Later, the general codes that emerged were compared with each other and crosschecked with the data before conducting a more focused coding. The identified codes were compared to find consistencies and differences. Consistencies between codes (similar meanings or pointing to a basic behaviour) revealed categories.
4. After constant comparisons were made between data, the emergent categories were compared based on data and theory. This technique was conducted repeatedly until there were no new emergent categories. The researcher 'memoed' or made notes on the comparisons and emerging categories.
5. When no new codes emerged from the data, the category was considered saturated. The study followed the constructing grounded theory processes, step-by-step (Charmaz, 2006, p. 11), as illustrated in Figure 2-1. The procedure helped the researcher to further clarify the process in analysing the data using the constructing grounded theory techniques. This research used the Charmaz grounded theory approach; the fundamental importance was placed on the context of experience, but keeping with the constructive approach it provided flexibility in data collection and analysis.

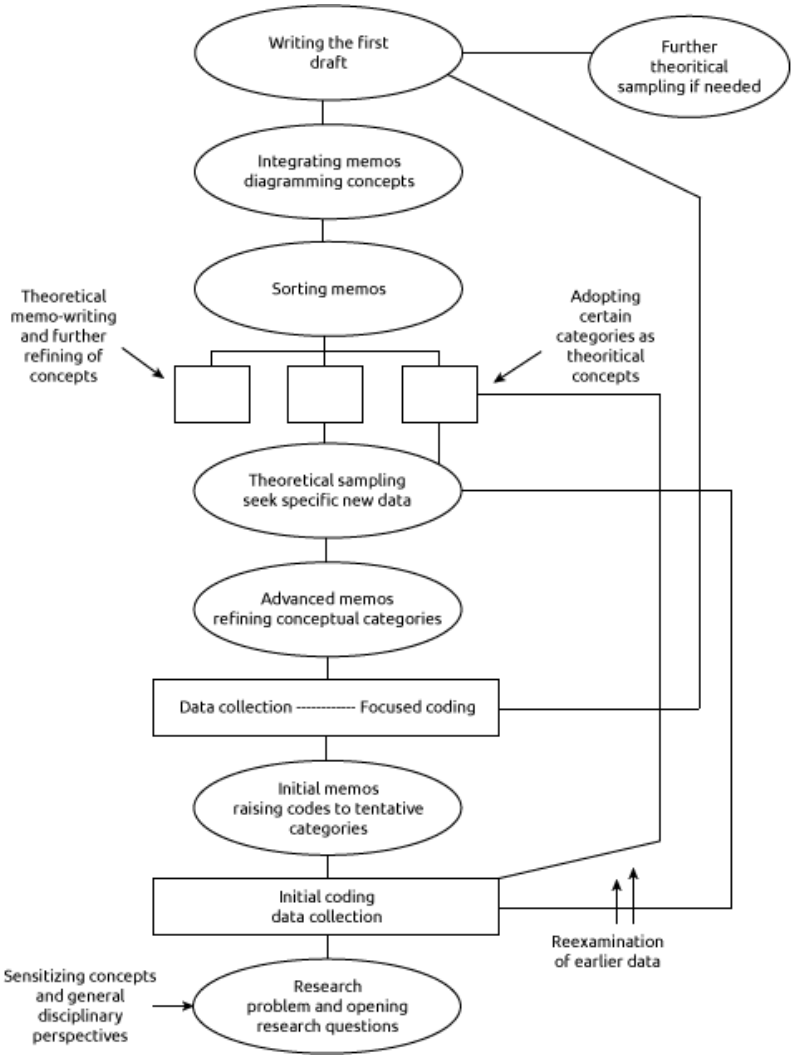

Figure 2-1 Constructing grounded theory procedures (Charmaz, 2006, p. 11)

6. Coding and memoing occurred more or less simultaneously. Sorting took place when all categories were saturated and writing followed the sorting. In this process, the explanations emerged gradually. This process was repeated for every new data set and also for the whole existing pool of data sets. Additionally, the pre-existing theories and models served as separate data sets to be examined.
7. Next, the coding process was repeated with the 11 interview transcripts and the codes that emerged from the interviews were again compared with the data as well as between data and theory. Later, the interview codes were

compared with codes from the tweets analysis. This technique was repeated until no new codes emerged.

3. Findings

This study found three types of information sharing between IT professionals on Twitter – public service tweets, technology-related tweets, and personal interest tweets were relevant to the IT professionals who work directly or indirectly in the area.

3.1. Public service tweets

The IT professionals were quite concerned with security and privacy breaches on the Internet. They frequently shared information about malware attacks and solutions that may be useful to others. They tended to share information about privacy and security on the Internet because of the nature of their work. For example, participants 6 and 11 who work in the computer security industry were actively engaged in and shared information about the vulnerability of computer security and threats on the Internet. The participants carefully filtered and validated information before making it official on their Twitter accounts to avoid a bad reputation for themselves. Hence, they validated the veracity of the sources by investigating the information's origins and reading the contents before sharing it on Twitter. For example, according to Participant P6 in the interview.

> *"I tweet about malware or the latest threat on the internet that's helpful and useful for my followers. […] So, first, I will check and confirm whether the information is correct. I filtered it by reading the article and if I found out it's something new, I'll further on my discovery and if there is something wrong with the information especially the links to the article then I don't share it on Twitter" (P6).*

IT professionals very frequently share information from other trusted people in their network if it is related to their work. An example from Participant P11's description is below:

> *"Those links that were originally tweeted by me are those I have read, and I found they are valuable for me, and also things that might be beneficial to others. As, in the information security areas, I've followed a guy who shares quite valuable [information] and nothing is misleading.. So most of [the information he shares on Twitter] is of very good quality" (P11).*

This study found also that the information lifecycle on Twitter is potentially infinite and information, once tweeted, is like a dormant seed, ready to be re-activated by anyone at anytime. The findings indicate that the currency of information is no longer the main concern, but that information acts mainly as a trigger to develop communities of knowledge and re-search opportunity. In other words, for the participants, Twitter was more of a 'people resource' than an 'information resource' – when the people-place-information triad of

traditional information grounds moved to Twitter as a place, the people aspect was more important than the information aspect. In terms of Fisher's information grounds theory, this is analogous to people going to a hair salon or a doctor's waiting room just to meet and talk to people; this outcome provides a new point of view on information behaviours within the online spaces.

3.2. Technology-related

Information technology products or services change rapidly over time; IT professionals are required to stay in the information loop to keep up to date with new developments. Participant P3 points out that Twitter has helped him to keep in touch with the experts:

> *"I'd follow a professor or some academics who I respect or you know, I want to read their work and they would follow me and the relationship there that I found [Twitter] was really good because you could actually you know, develop a bit of a [professional] profile and the like" (P3).*

Participant P4 highlights that he/she stumbled upon information that leads to mutual relationships with the experts in their fields.

> *"I follow people… well, if I know them I follow them. Sometimes when you see something being retweeted by somebody else, you might look at their Twitter feeds to see if it's interesting. So, you follow and it's not necessarily a professional, [it may be] just private interest groups. So, anything that sort of interests me in that way, I'll follow. It gives me a good use of [Twitter] to find information and it helps because I get information, which I feed into my other institutional Twitter account, so I sometimes get those" (P4).*

The findings fit in well with the discoveries of Dunlap and Lowenthal (2009) and Sheehan (2013), which emphasise the usefulness of Twitter for information sharing and professional purposes that have a significant impact on social presence. It is evident Twitter is a useful tool for keeping in touch with information and people, according to Participant P5's description.

> *"Sometimes my colleagues [are] currently on Twitter. So, I follow them and see what they're tweeting and yes, it's just a way, to keep in touch with them" (P5).*

The findings show that the participants utilise Twitter for information sharing and professional connections. IT professionals act as social reporters to disseminate information in regard to technology. Being a social reporter gives them an avenue to spread information and news of their topics of interests on Twitter (Holmberg, Eriksson-Backa, & Ek, 2014). This piece of evidence aids understanding of the nature of information sharing on the social media, as information sharing occurs in a more dynamic and unpredictable manner. The

information sharing that spreads to human networks has a significant impact on the participants' career development and knowledge transfer.

3.3. Personal interests

Twitter was originally developed for casual communication, but it has been used in personal and professional contexts for various reasons. Twitter is also known as an online social network for people to stay connected to their friends, family members, and co-workers (Eisenberg, Lin, Marino, & Karlova, 2011). Java, Song, Finin, and Tseng (2007) portray that the key elements of Twitter are content and topics. Content is all about "activities, opinions, and status" (p. 52), whereas topics cover "a range from daily life to current events, news stories, and other interests" (p. 52), such that "most posts are about daily routines or what people are currently doing" (Java et al., 2007, p. 62). This shows that this kind of 'phatic communication' is one way for people to get to know each other and to make polite conversation. Phatic communication is a type of communication – small talk – whose main purpose is a social one and not one of communicating any information. Such communication helps people develop their online communities through seemingly personal but inconsequential small conversation (Jansen et al., 2009). But over time, the use of Twitter has changed and been extended to professional purposes rather than personal contexts. According to Participant P5's description,

> *"I don't really use [Twitter] for personal use. I use Facebook for personal use. So, I only use it for, things that are related to engineering stuff or my job really. But, occasionally I tweet [something] that [I think it might be] interesting to other developers even though they are not work related. So it's like about Dr. Who or something like that" (P5).*

The findings show also that personal and professional uses of Twitter are intersecting or happening concurrently, as people share information about leisure, hobbies, or day-to-day life experiences. As Participant P3 said in the interview that,

> *"I started using Twitter for that reason [professional purposes] but because it is social technology and it is my social technology, I also use [Twitter] for more personal or social reasons to share amusing things or things that I found annoying or just things that I'm doing at a point in time to send it out there. So, I'm not using it solely for professional reasons, it's a bit more mixed I guess with my personality and my activities; both at work and out of work" (P3).*

Users also utilise Twitter to find information about people and to stay connected with them, such as their friends or family members. This study emphasises that building professional connections and a community of practice is more important to these IT-professional Twitter-users than the information-sharing aspects of Twitter. In short, these users experience Twitter as a real place or 'information grounds' where they meet and socialise with others. However, it is

more than just information grounds for them; it is also a place where they create co-experience by choice rather than by simple chance. Co-experience is a user experience in social contexts, [which] takes place as experiences are created together, or shared with others (Forlizzi & Battarbee, 2004, p. 263). Although the participants engage in a process of sense making (Dervin, 1999) it is not so much about making sense of the informational content of their Twitter networks as it is about the network itself, and about expanding it in a strategic manner to advance their professional goals.

4. Discussion and conclusion

Twitter provides a 'place' where IT professionals engage and communicate with the experts around the world. Twitter creates virtual information grounds, which have a more significant impact on users than physical information grounds do. Figure 2 shows that previously information grounds focused on information exchange and currency of information was the key; they had a significant focus on serendipitous discovery of information, and information sharing was the main activity. On Twitter though, it is not just about information, but about the network itself. This is because information on Twitter simply acts as a catalyst that triggers the formation of human networks. However, the human networks created on Twitter are broader and less strong compared to that of other collaborative platforms that are more private, for instance, Facebook. The findings of this research establish that IT professionals are concerned with their online image in order to avoid personal reputation damage, and this has influenced the way they use Twitter. This finding maps well to Goffman's theory of representation of self in everyday life (Goffman, 1971) wherein IT professionals present themselves online on Twitter to be acknowledged in their fields and project their self-image using text-based communication in a computer-mediated environment. Thus, IT professionals carefully choose what information they share and are selective when connecting with people.

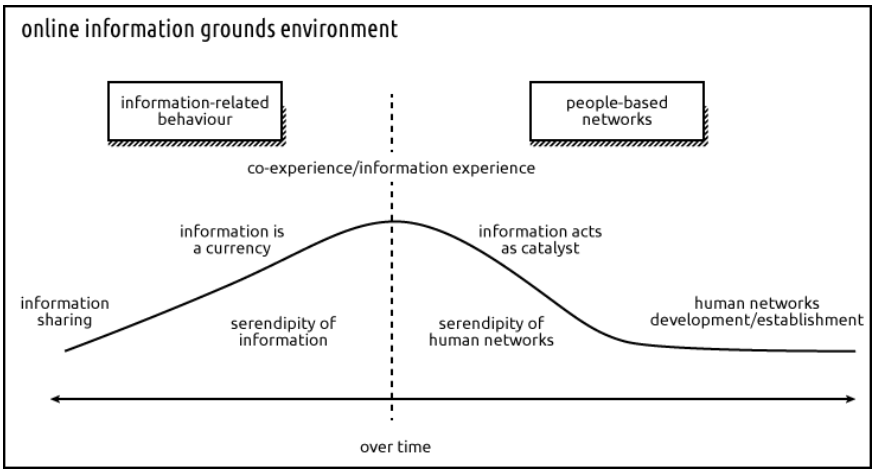

Figure 4-1 Online information grounds environment

Information simply acts as a catalyst for the usage of Twitter, which provides a sense of place where IT professionals engage and communicate with the experts around the world. In other words, the information flow facilitates interactions between IT professionals. IT professionals use Twitter to keep in touch with their colleagues and to hone their skills through continuous professional development; it is more than just gathering or sharing information. Erdelez (1999) argues that serendipity of information often occurs when people encounter information and share information. Williamson (1998) highlights that people find serendipitous information unexpectedly as they engage in other activities. This study found that the discovery of serendipitous information and discovery of expert contacts occurs concurrently while IT professionals gain access to information. For example, IT professionals who work in the field of computer security may stumble across interesting experts in the same area as themselves when they sift through information about the security threats on the Internet.

Interestingly, information on Twitter fosters interactions between people, which may yield co-experience; it provides some with the "information they did not know they needed until they heard or read it" (Williamson, 1998, p. 25). This often happens when users have social interactions within the online space among IT professionals. Co-experience is an experience in a social context that is shared, interpreted and given meaning by others (Forlizzi & Battarbee, 2004); it has a significant influence on human networks and information experiences like those on Twitter. Forlizzi and Battarbee (2004) highlight that co-experience occurs by chance when people engage with information or relate their experience to others. However, co-experience on Twitter emerges by choice rather than chance, which has a significant impact on IT professionals' information behaviours. Co-experience also aids the understanding of information experience, which is not about the information but about making sense of the information in conjunction with other people, and in the process, building relationships with these same people.

To conclude, the findings of this study add new elements to the concept of information grounds, in which the serendipity is not about the information, but is more about serendipitous human networks. IT professionals establish their professional networks by building deliberate connections with the experts whom they unexpectedly discover on Twitter. In short, the findings from this study have the potential to enhance our understanding of the social media networks in various ways. The findings shed light on the different ways in which the social media are used for professional purposes. Besides IT professionals, the outcomes of this study may motivate other professionals to try their hands on social media to develop professional networks.

Reflexively combining elements of digital ethnography and interviews thus helped the researcher to capture the uniqueness of information grounds in social media setting. This approach is important to obtain any meaningful understanding of how information grounds occur in such contexts. Finally, the digital ethnography and constructive grounded theory are suitable tools to study social media phenomena in the future; they provide a systematic method of data

collection and data analysis, with flexibility for researchers to investigate in-depth the unexplored phenomena. The researcher hopes this approach contributes to the discourse on qualitative methodology and to inform other researchers who are studying a similar context and considering a similar approach.

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