



Social media affordances in sense-making and knowledge transfer

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Background: Social media (SM) affordances and knowledge transfer (KT) culture permit sense-making, sense-unmaking and insights into an organisational performance improvement strategy. The article provides an analysis of SM affordances and how they enable sense-making.

Objectives: The purpose of this article was to explore how SM can facilitate effective KT in an innovative business environment (IBE). The question inspiring the article is: How can the use of SM facilitate effective KT in an IBE?

Method: Twenty online interviews with experts from various organisations were used to gather qualitative data and make sense of the key concepts. Data extracted were thematically analysed using ATLAS.ti software.

Results: Mainstream academia concentrates more on the operational usefulness of SM, and not much is concentrating on how SM affordances facilitate social, organisational sense-making and KT from strategic level expert's perspective other than the operational level.

Conclusion: Social media affordances are in the form of media richness, cost reduction, the meta-knowledge in community of practice, conversation frame-clues interlink, creativity, editability and creativity. The conversation leads to productive dialogue (PD) and KT.

Contribution of the research: The sense-making theory enables reconceptualisation of how SM affordances facilitate social, organisational sense-making and KT. Sense-making and KT are shaped by individual cognition, absorptive capacity, technology perceived ease of use (PEOU) as well as usefulness and the environment. The research is supportive to information and communication technology researchers and novice researchers in developing new knowledge and KT measurement and SM management strategies. This study is unique compared to the existing literature because of its exclusive and innovative approach regarding participant's selection, data collection and methods.

Keywords: knowledge transfer; social media affordances; sense-making; innovative business environment.

Introduction

Technology acceptance and internet democracy are exponentially growing, particularly social media (SM) use in sense-making and knowledge transfer (KT). The topic on SM affordance in sense-making and KT is important for novice researchers, academics and practitioners. This is because Ammirato et al. (2019) studied the use of SM for knowledge acquisition, absorptive capacity and dissemination in business-to-business (B2B) companies. The empirical analysis of Finnish technology industries (Finland) using 2500 companies found that SM adoption is still in an initial stage of growth. Although SM is more applied to business-to-consumer (B2C) than B2B companies, there is a lack of awareness of its potential in external knowledge acquisition and dissemination in organisations. Becoming common by day are social networking sites such as Facebook, Twitter, Google+ and LinkedIn (Statista 2021). More than 2 billion people around the world are using at least one social network and on average spent 2 h and 23 min on SM per day globally (Statista 2021). Thus, SM affordances in sense-making and KT topic are current, and more research could clarify ambiguous concepts related to the topic.

Numerous significant studies such as that of Findlay (1978) and Davenport and Prusak (1998) as well as Chen and Kuo (2017) have been concentrated on KT. The concept of KT was first proposed by Findlay (1978) and has since been interchanged as knowledge sharing, flow and acquisition. Knowledge sharing refers to making knowledge available to others, while knowledge flow

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includes the drifts within the IS/IT knowledge bases. Knowledge acquisition includes internalising knowledge (Becerra-Fernandez & Sabherwal 2010; Szilágyi 2017). Knowledge transfer is referred to as implicitly and explicitly affecting an entity by another resulting in changes in performance, process, products, training, application and modification of a knowledge reservoir (Becerra-Fernandez & Sabherwal 2010). This study assumes Davenport and Prusak's (1998) stance on KT as the organisation of knowledge that is applicable to another organisational unit through a variety of knowledge sharing tools and procedures. Information and Communication Technology (ICT)-mediated conversation calls for SM capabilities and physical face-to-face interaction, to transfer knowledge within organisations (Cotten 2021; Van Den Berg & Verhoeven 2017). Technology shifts and affordances in organisations also reflect the context. Social media use in KT lead to the question: How can the use of SM facilitate effective KT in an innovative business environment (IBE)? Innovative business environment includes strategies that release inventiveness, prediction, redesigning knowledge in order to reduce uncertainties and the negative impact on the business environment (Kuratko, Hornsby & Covin 2014; Rothenberg & Zyglidopoulos 2007).

Research problem statement

Social media implementation in the KT process has demonstrated to be relatively challenging because there is a lack of clear effective leadership approaches in KT of systems, business processes, and deep, tacit (knowledge embedded in the mind) and organisational knowledge (Dalkir 2016).

This is despite the fact that the use of SM for innovation requires organisations to manage rapid information transfers, big data and multitechniques for communication. In addition, SM for innovation is challenging for managers on how to influence these tools and their outcomes for innovation (Muninger, Dominik Mahr & Hammedi 2022; Nijssen & Ordanini 2020). The paybacks of effective SM applications have been acknowledged. Social media facilitates marketing activities and improves the organisational financial performance, bringing new product innovativeness and new product efficiency (Muninger et al. 2022). In addition, SM facilitates knowledge sharing and communication in teams (Ali et al. 2020). Although a number of factors have been suggested as important fundamentals in impacting the success of KT, the impact of individual and organisational culture, trust and technology aspects appears as a common thread. Ncoyini and Cilliers (2020:7) used interviews to collect data which was thematically analysed, to gain an in-depth understanding of the factors that impact on knowledge management systems (KMS) to improve the KT at a municipality. The research found that the factors influencing KMS include: (1) organisational efficiency, (2) motivation, (3) trust, (4) reciprocity, (5) organisational culture, (6) organisational structure, (7) top management support and (8) IT. Unfortunately, very little attention has been given to SM for innovation with research dispersed across various disciplines,

such as innovation, marketing, information systems and general management (Nijssen & Ordanini 2020):

The above problems bring to the fore the statement of research problem for this study, which is the following: Businesses are finding it thought-provoking to use SM for effective KT across various divisions, such as marketing, information systems, finance and general management.

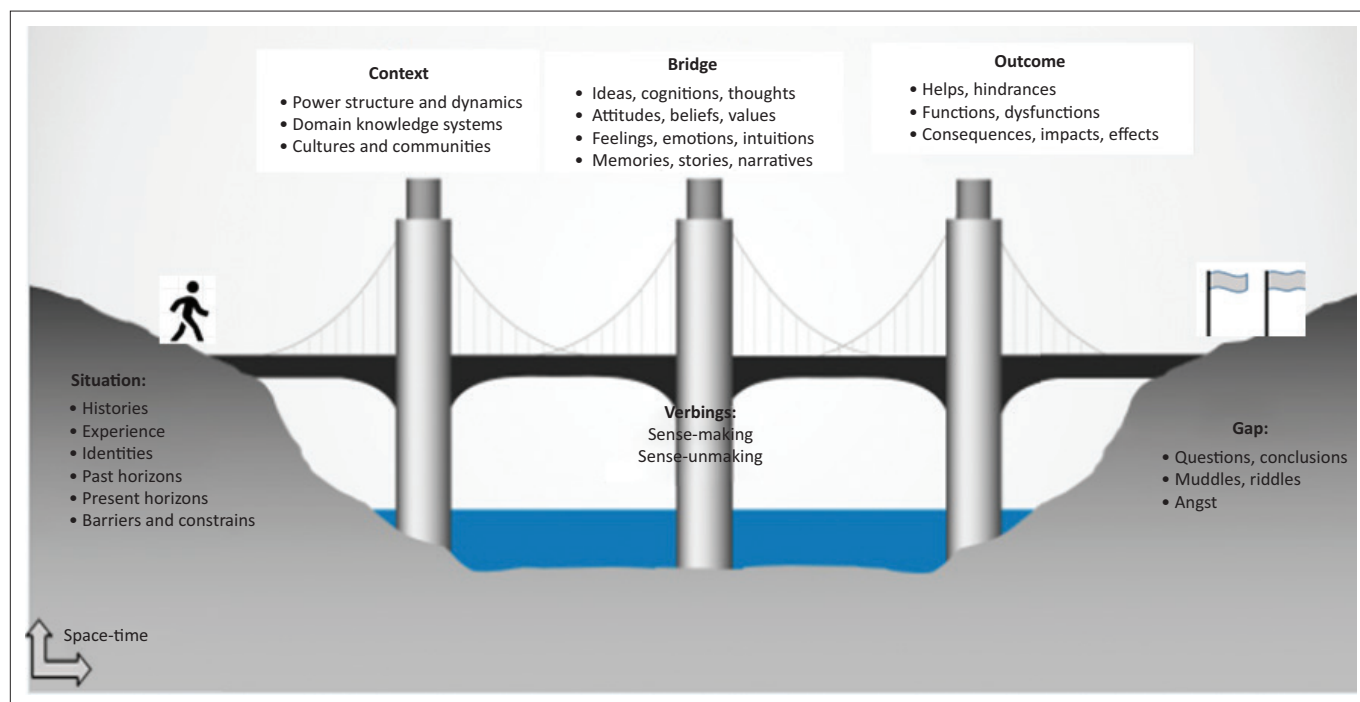
The next section reveals the research problem, theoretical framework, literature review, research method, results and discussions, conclusions, contributions and recommendations.

Individual and organisational sense-making theories

Sense-making encompasses a variety of complex features. Sense-making is described as the process of finding meaning from information and is inherently linked with information seeking as both an outcome and a motivator (Weick 1995). Sense-making for Dervin is not an information 'thing' that can be transmitted unchanged from one person to another or can be inoculated into people's minds (Dervin, Foreman-Wernet & Lauterbach 2003:37). According to Sandberg and Tsoukas (2020:9), sense is perceived as first generated in the minds, language and social interaction, which one consequently acts on. Figure 1 illustrates Dervin's sense-making process to facilitate a person's understanding and handling of information.

As shown in Figure 1, according to Dervin's sense-making process (2003), the human life is affected by timespace, past experience (frames), present situation and a future anchored in material conditions. The timespace includes a person's history, experience, horizons (past, present and future), constraints, barriers, habits and skills. This human being also carries a type of symbolic baggage, including power structures, organisational systems and procedures, cultures and communities labelled as 'context'. The bridges that connect the past and future to permit the person to move onward are listed as ideas, cognitions, thoughts, attitudes, beliefs, values, feelings, emotions and memories. Verbing entails the sense-making and sense-unmaking of the individual Dervin's sense-making process (2003). Outcomes refer to information uses or help and discomforts that the individual puts into newly generated sense (KT). The outcomes can be help, hindrances, functions, dysfunctions, consequences, impacts, effects and future horizon which may be applied by a person to any interpretive encounter. Namvar et al. (2018) motivate the researchers using sense-making in SM because the theory provides more elaborate thoughts predicated on empirical research to respond to questions.

Sense-making according to Weick (1995) involve the whole organisation other than single individuals. Sense-making in organisations also includes having organisational actors developing personal schema and mental representations through understanding a given event, circumstance or result of accomplishment (Bajwa, Waseem & Akbar 2020:97). Organisational sense-making involves four phases such as ecological change, enactment, selection and retention.



Source: Dervin, B., Foreman-Wernet, L. & Lauterbach, E., 2003, *Sense-making methodology reader: Selected writings of Brenda Dervin*, Hampton Press, Cresskill, NJ

FIGURE 1: Dervin's sense-making process.

Kudesia (2017:14) indicates that it is important to note how sense-making occurs through same enactment-selection-retention process and links the organisational sense-making process with seven organisational sense-making principles from (1) to (7):

1. Enactment as part of noticing and bracketing information from the environment embrace: (6: focusing on cues) and (3: enacting sensible environments).
2. Selection (2: retrospective in nature) and seeking to find workable interpretations rather than completely accurate ones (7: driven by plausibility).
3. Retention (1: grounded in identity) and how outputs are negotiated through interactions with others (4: social and 5: ongoing).

The theories facilitate understanding how individuals gain an understanding of organisational complexity or changes, which may lead to adjusting the organisation and its environment. An example of adjustment could be the application of SM affordances in sense-making and KT. Sense-making entails a series of sequential actions, including: (1) information development, (2) the gathering of relevant information, (3) schema development and (4) the representation of obtained data in a diagram that facilitates insight development (Pirulli & Card 2005:2). This means without understanding situations, contexts, objectives, sequential series of sense-making, or having a schema to create insights, sense-making becomes difficult and may not lead to action, KT and desired outcomes.

Literature review

Seizing SM affordances is becoming more important in facilitating sense-making and KT in organisations. One of the

key writers in the field is Kaplan and Haenlein (2010), with different perspectives on the need to classify SM tools and functions when assuming any new organisational strategy. Researchers who contemplate along similar but different lines are Bidgoli (2021) and Helms, Cranefield and Van Reijssen (2020). Leonardi (2017) emphasises that SM should be integrated into all organisational operations. Researchers who support the ideas of Helms et al. (2020) and Leonardi (2017) include Bidgoli (2019) who argue that devices and applications are becoming context-aware in the contextual computing domain. For example, Everything-Me is a context-aware launcher that delivers everything a user needs from his or her phone in just one tap based on the user's location, time of day and individual preferences. Facebook-M tells the user what the weather will be like, reports sports scores and can determine distances, schedule appointments and send reminders to friends and business partners. Facebook-M can also complete a task on the user's behalf, for example, responding to an e-mail. This significantly highlights the importance of using SM in sense-making and KT in this IBE. The use of SM affordances reveals the authors' intention to bring about the new strategy to sense-making and KT and contribute to the gap still existing on the lack of effective KT strategies.

The academics that took different stances on the technology used in KT include Min, Wu and Liu (2017) and Parlak, De Souza and Cerutti (2022). Equally, when teams face constraints against the use of SM, they miss a lot of valuable information from friends and colleagues who could help them enhance job satisfaction and performance. Social media use also facilitates and challenges how academics and students, local and global collaborators produce, exchange and transfer knowledge (Min et al. 2017). Social media ethics and principles also

negatively impact the use of SM in KT if they are misunderstood. For instance, nonethical damaging behaviours from the perspective of organisations include blog posts or brand reviews paid by marketers, who are hired by an organisation including ghost tweeters and false customer reviews (Bidgoli 2021). Dangers related to SM imply that organisations should avoid defamatory false information about people, keeping identity private, maintaining copyrights and environment safety. The disclosure of location by an employee or employer should be avoided where it reveals business. Engaging brand protection through a firewall could also prevent the negative impact of SM use in the form of right infringements and ethics (Bidgoli 2019).

Using interdisciplinary perspective, Parlak et al. (2022) studied the community-held KT into World Heritage Site (WHS) management plans at UNESCO World Heritage. The purpose was to assess UNESCO World Heritage Committee management plans for WHS nominations including the evidence of involvement of all stakeholders. The study found that local KT into WHS management plans is poor. The proposed method determined three levels of community KT to WHS: (1) concerning how comprehensively the management plan addressed issues raised by the community focus groups, (2) a community focus group should provide local knowledge as the basis against which KT can be gauged and (3) full KT is concluded when an issue raised has an action that rightly matches to it and an output that evidently evaluates response (Parlak et al. 2022:13). This means without focusing community KT on (1) providing local knowledge as the basis against which KT can be gauged and (2) considering that full KT is concluded when an issue raised has an action that rightly matches to it, KT will be difficult.

On the same note of challenges of local community KT by Parlak et al. (2022), in 1996, Szulanski explained on organisational practice stickiness as part of the factors impacting KT. Szulanski highlights that the ability to transfer best practices determines competitive advantage owing to internal stickiness or inimitability of practice. The quantitative study found that KT is affected by recipient's lack of absorptive capacity, underlying uncertainty and also difficult employee relationships. This means without the absorptive capacity, certainty and positive employee relations, when one is using SM, sense-making and KT is difficult.

Cohen and Levinthal (1990) used the theory of knowledge absorptive capacity to reveal factors which affect KT. The theory argues that the cognitive individual, organisational absorptive capacity, prior related knowledge, investment in expertise or research, development and diversity of background impact the organisational sustainability. The empirical analysis of R&D investment research tested the implications of absorptive capacity for the analysis of other related innovative activities, including basic research, the adoption and diffusion of innovations and decisions to participate in co-operative R&D ventures. The research found that the characteristics of the learning environment affect KT. This implies that without the cognitive individual,

organisational absorptive capacity, prior related knowledge, investment in expertise or research, development and diversity, positive background in using SM for KT organisations struggle on sense-making environments and achieve KT objectives. More researches on new SM, sense-making and KT factors are necessary.

Now, to be able to begin answering the question, the classification of SM tools and functions and a conceptual framework need to be developed. To understand the exploration in SM affordances in sense-making and KT, Dervin's (2003) individual and Weick's (1995) sense-making theories were used. Szulanski's (1996) knowledge stickiness and Cohen and Levinthal's (1990) absorptive capacity theories were also considered to explore paper research topic.

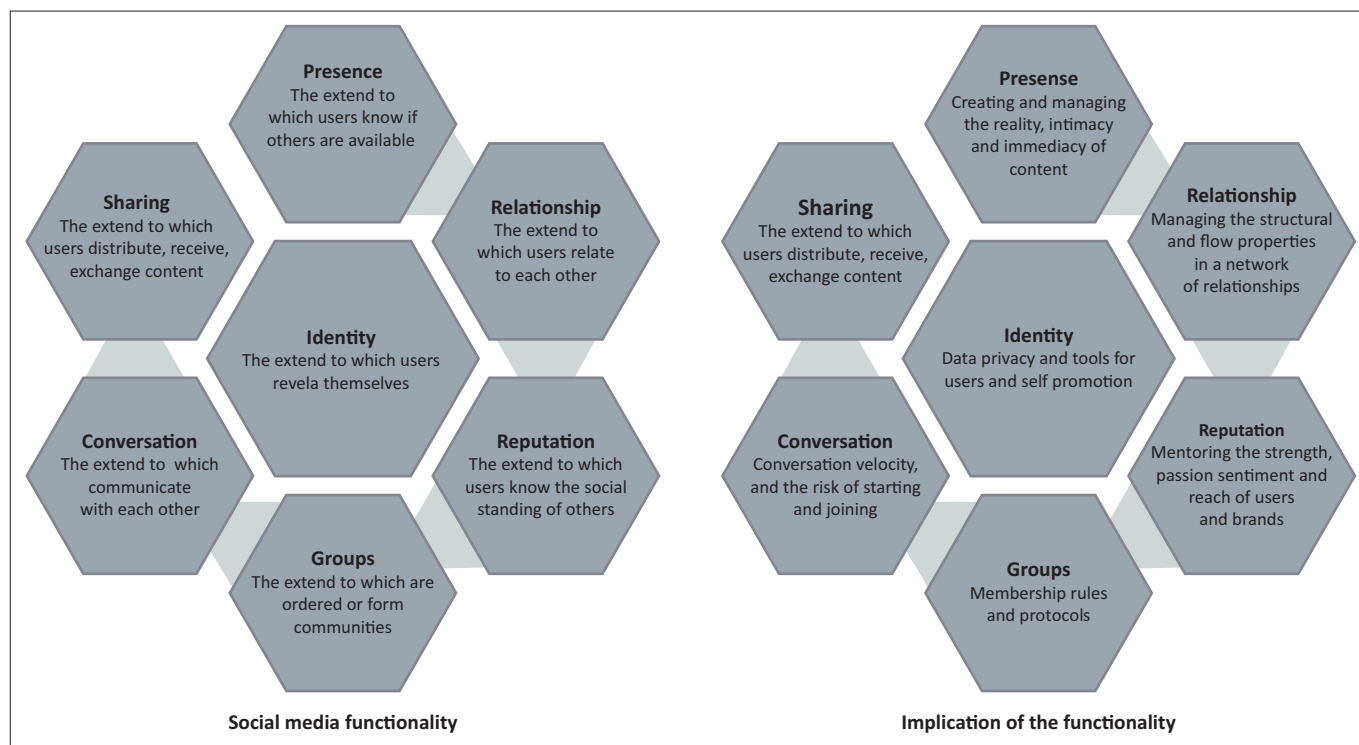
Classification of social media tools and functions

In the section that follows, it will be argued that there are different SM types and tools. Social media is also categorised into egocentric, community, passion, media sharing and opportunistic sites (Parent, Plangger & Bal 2011). To explain, egocentric sites allow profiling and connections whereas community sites imitate natural groups based on faith and interest. Media sharing sites aid in sharing content while passion sites enable passion associations based on interest and leisure pursuit. Opportunistic sites also facilitate business collaborations.

The theoretical classification of SM tools by Kaplan and Haenlein (2010) indicates SM as a tool mainly used by individuals rather than communities. The three SM classifications are organisational blog, social communities and virtual world. Social media instant contact is low in organisational blogs, medium in social communities and high in the virtual world. In contrast, Kietzmann et al. (2011) differentiate SM into seven honeycomb blocks of functions. Some of the functions are to be present on SM to reveal identity, privacy, social standings in the form of reputation and create organisational groups (Parent et al. 2011). To add, sharing multimedia content, conversation and relationships are also some of the SM functions which (Parent et al. 2011) are labelled as passion, for media sharing and opportunistic sites. The honeycomb functional blocks of SM by Kietzmann et al. (2011) in Figure 2 present a significant and universal challenge to organisational communication, KT in terms of selecting how to design the platform for specific functions.

Using illustrations like the honeycomb framework in Figure 2 to understand and develop SM platforms, and the SM landscape more generally, is important. Kietzmann et al. (2011) present a guideline relating to how firms should develop tactics for observing, understanding and responding to different SM activities. The guideline includes four Cs, which are cognize, congruity, curate and chasing.

To cognize, according to Kietzmann et al. (2011), is to understand the firm SM landscape, unveiling the SM



Source: Kietzmann, J.H., Hermkens, K., McCarthy, I.P. & Silvestre, B.S., 2011, 'SM? Get serious! Understanding the functional building blocks of SM', *Business Horizons* 54(3), 241–251. <https://doi.org/10.1016/j.bushor.2011.01.005>

FIGURE 2: The honeycomb of social media functionality.

functionality and the ability to react to customer's needs. Congruity involves developing agile strategies which accommodate different SM functionalities and organisational goals. Curating includes the ability of a firm to know when and who will communicate and portray an impression on a SM platform. Lastly, an organisation must chase for employees who have the ability to mine information about SM activities since it is extremely time-consuming (Kietzmann et al. 2011). According to the author of this article, chasing by Kietzmann et al. (2011) seems to be related to educational motives for SM use stated by Safko and Brake (2009). As an instance, learning about an organisation's products, brand, suppliers and business intelligence aids employees who need the ability to mine information about SM activities. Mining the information needs employees who can save resources since it is extremely time-consuming (Kietzmann et al. 2011). Thus far, the article has maintained that SM facilitates sense-making, although cybersecurity risks affect the use of different SM functions and understanding of classification of SM tools. Some of the functions include identity creation, sharing, conversation, group creation, reputations, relationship and presence. Cybersecurity risk understanding therefore becomes mandatory for the leadership for effective KT and remains sustainable.

How social media facilitates knowledge transfer

There are various ways in which the use of SM facilitates KT. Helms et al. (2020) found that SM facilitates KT by means of communities, networking in sourcing knowledge as open new avenues for both scholars and practitioners, through analysing digital traces and the employment of the wisdom

of the crowd. Leonardi (2017) illustrates that SM knowledge contribution challenge is caused by lack of incentives which emanate from the absence of intrinsic motivators. To add, SM can solve the lack of incentive through posting supportive comments and 'like' contributions and public conversations. More so, the theoretical tactic proposing how the lack of incentives barrier can be overcome is through recognition from management and/or co-workers. Nevertheless, the management may provide feedback on contributions and promote a culture of discussion of problems. This means without incentive, networking, providing supportive comments, analysing digital traces and managing supportive comments of KT may be a challenge.

Knowledge retrieval is a challenge related to knowledge sharing. Knowledge retrieval challenge is also caused by the lack of awareness of what knowledge is out there. Moreover, lack of awareness of what knowledge is available may be because of narrow-mindedness and information overload (Leonardi 2017). Knowledge retrieval challenge is also related to the preference for knowledge from known trusted people (Nijssen & Ordanini 2020). The trust barriers can also be solved by the use of SM. Social media can be used to encourage sharing of non-work-related content in order to seed work-related interactions. Social media facilitates KT through use of algorithms that push notifications of similar people and content to relevant users (Leonardi 2017). Thus, use of SM may alleviate the challenge of lack of awareness of available knowledge, trust and intentions to sizing SM affordance in KT through the algorithms that push notifications of similar people and content.

There are different types of dialogues available when one is using SM. According to Tsoukas (2009), SM enables productive dialogue (PD) which consists of four elements: collaborative emergence, constrained novelty and shared situations. Collaborative emergence means the participants accept the dialogue for its progressing nature, thereby emerging a shared language and outcomes from continuous interactions and can change accordingly. Collaborative emergence is also facilitated by the affordance of persistence, making existing knowledge persist over time. Past interactions' affordance persistence contributes to the incremental creation of new knowledge (Tsoukas 2009). Also, the incremental emergence, which refers to creating novel knowledge incrementally, builds on the SM affordance like editability (Treem & Leonardi 2013; Tsoukas 2009). Thus, SM conversations aid sense-making and KT through SM affordances.

Social media enables dialogue or conversation and is also afforded by visibility. Visibility aids indexical creativity by assigning roles to particular people (e.g. 'knowledgeable person about a certain issue') and by locating certain participants and their contributions in relation to particular knowledge issues (Tsoukas 2009). One challenge of conversation is unproductive dialogue (UD) which embraces elements such as PD, UD and counterproductive dialogue (CD) (ed. Arthur 2019; Tsoukas 2009). Dialogue or conversation is a setting for virtue (being prosocial and being antisocial) (Ridley 1997). This is because like animals, connections to relatives, friends, superiors, colleagues and companions by humans make humans misanthropes while unable to live without each other.

Productive dialogue, which depend on UD and CD, results in some minimal good virtues such as creativity, curiosity, fairness, gratitude, honesty, humble, kindness, love, self-regulation and social intelligence and low positive success in the process. Unproductive dialogue neither results in minimal good and low positive success nor negative progression, unresponsive overall. This means that CD in contrast results in negative goods and creates additional problems, lack of vision, failure to be curious, dishonest, pride, meanness, breakdowns in relationship, hardens one to alternative voices, erects or reinforces breakdowns and hurts the general CD (ed. Arthur 2019).

Technology acceptance model (TAM) is a well-known model of IT adoption (for instance, SM affordance in sense-making and KT). Technology acceptance model posits that behavioural intent (BI) to act (in this case SM use and KT) functions as a facilitator of actual habit. It furthermore proposes that attitude determines intention and that perceived usefulness (PU) is seen as impacting directly on intention. According to Davis (1989), perceived ease of use (PEOU) and PU both influence attitude. This implies that lack of positive attitude to IT PU, PEOU and BI to use SM affects KT.

To conclude, SM enables the creation of new associations or improves existing ones and even develops associations,

internalisation and sharing with others beyond the intention of the initial interaction. Social media brings about different affordances consisting of creativity, virtue, visibility, editability, persistence and association. Social media affordances impacting processes related to socialisation include (1) people processing tactics, (2) information seeking and (3) relationship formation.

Research method

The study accepts an interpretive research philosophy which seeks to create new, richer understandings and interpretations of social worlds and contexts (Vaishnavi & Kuechler 2004). Atkinson and Flint (2001:1) defined Snowball sampling as: [...] 'a technique for finding research subjects'. One subject gives the researcher the name of another subject, who in turn provides the name of a third, and so on aiming to extract data from hard to reach populations such in this case experts. In the current article, 20 interview experts were considered as a unit of analysis and regarded as a case. Microsoft (MS) Teams Application use was motivated by COVID-19 pandemic which required the maintenance of social distance (1.5 m apart) according to the World Health Organization (WHO). Interviews' recording was enabled on the MS Teams Application with the 20 interviewee's consent. The interviews were transcribed in detail. Qualitative analysis are important in comparing constant themes (Braun & Clarke 2006). This qualitative method was chosen because it is the preferred method of gaining more understanding about understudied subject or symptoms in such a way that do not require quantification (Hatta & Lubis 2020).

Presentation of research results

Mainstream academia are concentrating more on the operational level instead of the strategic level on SM use in sense-making and KT. The research found that SM affordances facilitate sense-making and KT through communication, seeking information and replaying annotated content enabling management practices. Participants mainly highlighted that individuals, group or team conversation, collaboration, sharing, open idea discussion/dialogue present opportunities for sense-making and effective KT. Social media affords campaigns, meta-knowledge, visibility, editability, persistence and association which facilitate sense-making and KT.

Discussion of research findings

The research found that SM afford sense-making and KT through communication, first information, replaying annotated content. The finding is consistent with Treem and Leonardi (2013), Neeley and Leonardi (2018) standpoint on that SM bring about different affordances and also facilitate dialogue which can be productive or unproductive. The following excerpts express the affordances by the use of SM in KT:

'For example, I can use WhatsApp, anywhere, anytime, for formal businesses but I think it was primarily designed for social informal setups. [...] employees are using it to exchange official information

although it becomes a distraction. Organisational tasks may not be done when sent via WhatsApp compared to if the same tasks are assigned via official channels.' (P5, Female, from Ireland with a Doctorate and 15 years' experience in ICT management)

'Largely through campaigns on Facebook where one can use a video explaining what's new, what information might be needed, and promote in a targeted audience. As an example you can find clients in a small town, aged 35–45 and in need of tractors in a Free State by giving them a link to someone they can contact, filling a form, or using a YouTube video. [...]. Looking at Facebook the KT happens via Facebook messenger in the form of YouTube videos which explain. On WhatsApp, it's a direct conversation where you share something one should be aware of and you address a specific person and share an environment where they can take it further. Advertising is also KT in broad terms.' (P6, a male, Chief Executive Officer with Master's, from the Netherlands and had more than 5 years owning a company in digital marketing communication)

Visibility entails making knowledge and meta-knowledge visible to other users in the form of sharing advertisements of multicontent via Facebook, YouTube or WhatsApp. By making knowledge visible, individual participants can draw on other's knowledge to enhance their individual knowledge base. The element of individual contribution is further supported by the affordances of persistence (availability of content for a period of time) and association. Social media affords participants to enhance knowledge by viewing and searching for previous contributions (with regard to the topic of interest, ideas, stories, videos and thoughts regarded as bridges in Dervin's [2003] sense-making theory), as knowledge remains persistently available on YouTube platform as indicated by P6. Visibility affords participants to enhance SM user's own knowledge in novel ways by drawing on others' knowledge and for creativity when sharing multicontent videos. There are three types of information or actions that are made visible through the use of SM in organisations: (1) work behaviour, (2) meta-knowledge and (3) organisational ongoing streams of activities (Treem & Leonardi 2013) also reflected by P6. Without understanding the available visible SM information, sense-making and KT become more challenging.

Participant 5 had this to say: '[...] most employees are using it to exchange official information although it becomes a distraction [...]. Employees reflect making sense of the conversations but are being distracted, meaning each interlocutors' conversation, text, images and videos become visible to the sender and receiver including the public who might not be part of the conversation or dialogue. In this case, SM organisational advertise systems, content and procedures, KS cultures and communities labelled as 'context' facilitate sense-making.

Editability allows users to modify, delete or edit content in an asynchronous manner that has already been published. Editability is a function of two aspects of an interaction: communication formed in isolation from others and asynchronicity. A speaker need not worry about regulating nonverbal cues or involuntary reactions when using an

asynchronous; instead, they can focus on the form of the message they hope to convey. When communicating through a teleconferencing technology, people can view the physical displays and reactions of counterparts, but when using SM tools, users need not worry about nonverbal cues (Treem & Leonardi 2013). According to Danis and Singer (2008), editability of content improves the perceived quality, value of the technology resulting in greater collaboration and a more valuable end product.

Social media persistence facilitates the development of contributions in terms of knowledge. Previous dialogues about particular knowledge issues shape how participants engage in a dialogue about new knowledge issues. Because past interactions and in particular settings that emerged from previous dialogues determine present dialogues, the affordance persistence contributes to the incremental creation of new knowledge (regarded as bridges and or situations) in Dervin's (2003) sense-making theory. Also, the incremental emergence, which is defined as creating novel knowledge incrementally, builds on the SM affordance editability (Treem & Leonardi 2013). Finally, there are three ways in which the affordance affects organisational action: (1) sustaining knowledge over time, (2) creating robust forms of communication and (3) growing content. The analysis may result in gaps (angst, questions, muddles, riddles); creation of bridges in sense-making is revealed by Dervin's sense-making theory (2003).

Social media use facilitates KT. Figure 3 illustrates how SM affordances facilitate sense-making and resultantly KT.

Figure 3 illustrate how SM afford sense-making and KT through discussion, link questions, answers, praise, blame and acknowledgements that support the construction, authentication, multi-content, integration, algorithm, application, recontextualisation and organisation of knowledge.

Conclusion and contribution

The purpose of the current study was exploring how the use of SM facilitates KT in an IBE. The study selected the interpretive paradigm and adopted an inductive approach. This article engaged a qualitative methodology using in-depth interviews (primary data) to guarantee data saturation. The findings from this study suggest that SM facilitates KT although it is mandatory for organisational leadership to think on how organisations can manage designed SM platforms. This study found that generally SM facilitates KT by means of dialogue, communities, networking, digital traces, incentive through posting supportive comments, clues, frames, use of algorithms that push notifications of similar people, public acknowledgement of SM effectiveness, providing promoting culture of discussion of problems, sharing of non-work-related content to seed work-related interactions, extending the individual's reach beyond the formal communication line and entrenching knowledge into administrative routines. This study has concluded that digital traces of PD, UD, CD and SM affordances facilitate KT.

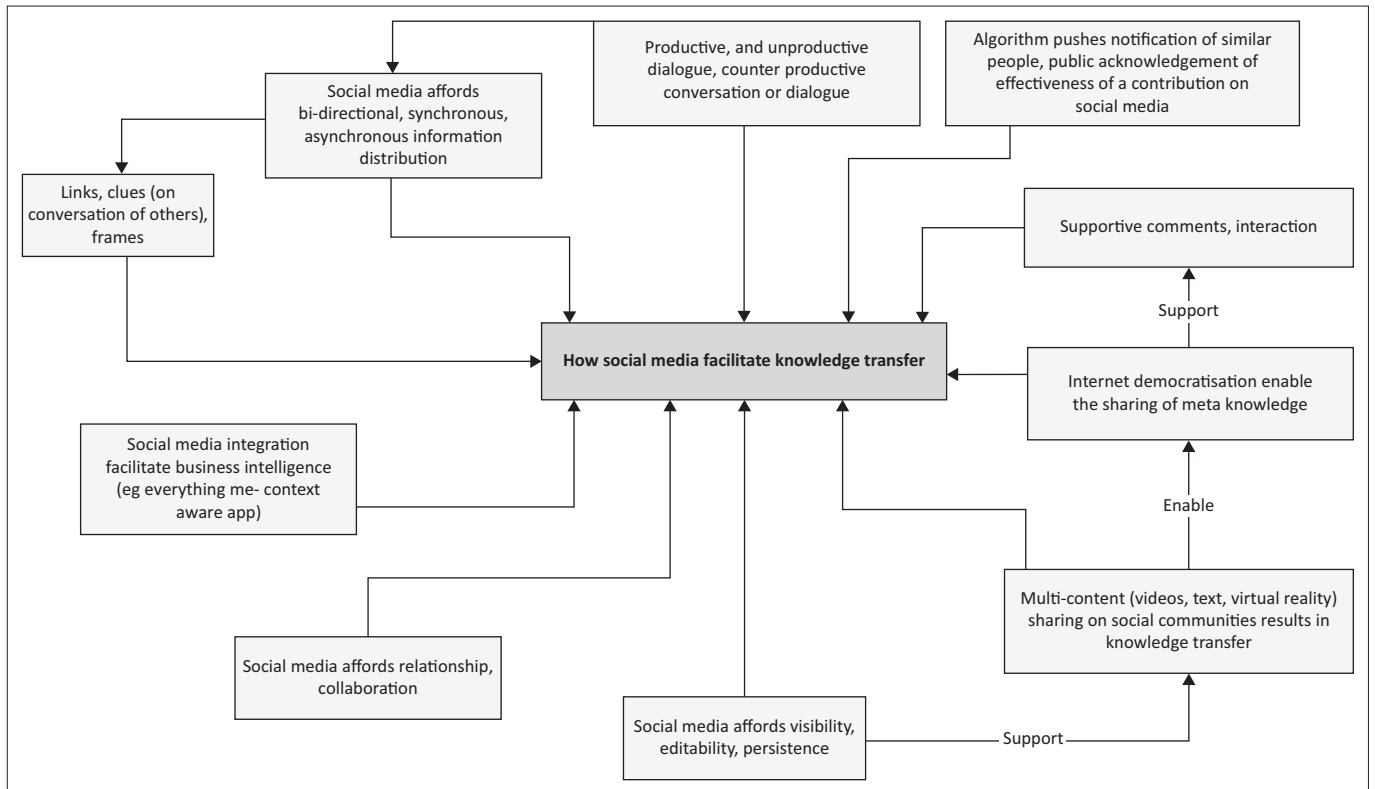


FIGURE 3: How social media affordances facilitate sense-making and knowledge transfer.

In terms of contribution, Dervin's sense-making theory enables reconceptualisation of how the social sense-making is shaped by discrete understanding, perceived processes, realities and the meaningful information. The research is supportive to ICT researchers and novice researchers in developing new knowledge and KT measurement and SM management strategies. This study is unique compared with the literature because of its exclusive and innovative approach regarding participant's selection, data collection and methods.

Recommendations for further research

The question raised by this study is how SM affordances facilitate KT from an organisational operational perspective other than the strategic level assumed in this article. More research could also use a case study strategy on the use of SM in KT:

'This is because of the complexity of identifying and managing the correct SM platform to facilitate KT.' (P2, male, from United Kingdom with more than 16 year of experience as an executive director and researcher)

Recommendation for knowledge intensive organisations includes the following:

'We have narrowed it to just LinkedIn because of the issues with work productivity, individual work ethics, especially in the era of working from home you will know continue monitoring what someone does, however if the person has good work ethics he or she will not go on SM ... LinkedIn plays an important role because it still has that social component for the work environment as well, it has less risks ... With outlook you can actually check

someone's contact and via LinkedIn as well. LinkedIn allows you to be a professional as well and still market yourself as well. Some organisations use LinkedIn for their marketing ... We use it for now because it allows us to do everything. We have company posts, motivation and all that staff.' [P2]

In connection with visibility affordance, when others can see SM actors and none participants, does increase in SM use increase on sense-making and KT? On persistence, one can explore if SM contents of past horizons are revealed through the persistence of older organisational content affecting one's ability to autonomous KT. In relation to editability, one can explore how presentation of SM content conceals critical dependencies on experts and how editing can control disguised SM content. Swarm use on SM connections which reveal if an employee is at work or not (Van Looy 2016) highlights a point on whether the growing SM use is ethical as consent is implied via publicly posted information. This is because many people may want to know research purposes for their information they blended on SM. On this note, more research could concentrate on the ethics, consent and impact of sense-making via SM users' conversation. One can also explore how the relationship creations afforded by SM result in less dependence on experts sought in sense-making or KT.

Lastly, like all studies, this study has limitations. Expert elicitation as in interviews uses subjective measure, which includes beliefs of an individual or a group of experts that can impact the results as indicated by O'Hagan (2019). The results of the interviews' elicitation and subsequent thematic analysis only represent those interviewed without covering the entirety of the expertise of other domains.

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Authors' contributions

F.N. wrote the article, and A.C.D. reviewed and selected the framework which was used.

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Ethical clearance was provided by the researcher's relevant FREC (Faculty Research Ethics Committee). Rights, roles and responsibilities in terms of expert's involvement in the study were also part of the consent letters. 211109754.09-10-2018

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Data availability

The authors can provide the primary source of data used in this research on request although there are no data used which had any restrictions.

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References

- Ali, A., Bahadur, W., Wang, N., Luqman, A. & Khan, A.N., 2020, 'Improving team innovation performance: Role of SM and team KM capabilities', *Technology in Society* 61(5), 101259. <https://doi.org/10.1016/j.techsoc.2020.101259>
- Ammirato, S., Felicetti, A.M., Della Gala, M., Aramo-Immonen, H., Jussila, J.J. & Kärrkäinen, H., 2019, 'The use of social media for knowledge acquisition and dissemination in B2B companies: An empirical study of Finnish technology industries', *Knowledge Management Research and Practice* 17(1), 52–69. <https://doi.org/10.1080/14778238.2018.1541779>
- Arthur, J. (ed.), 2019, *Virtues in the public space, citizenship, civic friendship and duty*, 1st edn., Routledge, New York, NY.
- Atkinson, R. & Flint, J., 2001, 'Accessing hidden and hard-to-reach populations: Snowball research strategies', *Social Research Update* 33(1), 1–5.
- Bajwa, S.U., Waseem, A. & Akbar, A.A., 2020, 'Making sense of sense-making process in the face of organizational environment', *Business & Economic Review* 12(3), 97–122. <https://doi.org/10.22547/BER/12.3.4>
- Becerra-Fernandez, I. & Sabherwal, R., 2010, *KM systems and processes*, M.E. Sharpe, London.
- Bidgoli, H., 2019, *Management information systems*, 9th edn., Cengage Learning, Boston, MA.
- Bidgoli, H., 2021, *Management information systems*, 10th edn., Cengage Learning, Boston, MA.
- Chen, P.T.A. & Kuo, S.C.B., 2017, 'Innovation resistance and strategic implications of enterprise SM websites in Taiwan through knowledge sharing perspective', *Technological Forecasting and Social Change* 118(C), 55–69. <https://doi.org/10.1016/j.techfore.2017.02.002>
- Cohen, W.M. & Levinthal, D.A., 1990, 'Absorptive capacity: A new perspective on learning and innovation', *Administrative Science Quarterly* 35(1), 128–152. <https://doi.org/10.2307/2393553>
- Cotten, S., 2021, 'The ties that bind: How online and offline interactions affect social support and quality of life for older adults', *Innovation in Aging* 5(Suppl. 1), 301. <https://doi.org/10.1093/geroni/igab046.1166>
- Dalkir, K., 2016, 'The role of technology and social media in tacit knowledge sharing', *International Journal of E-Entrepreneurship and Innovation* 6(2), 40–56. <https://doi.org/10.4018/IJEEI.2016070103>
- Danis, C. & Singer, D., 2008, 'A wiki instance in the enterprise: Opportunities, concerns and reality', *Proceedings of the 2008 Conference on Computer Supported Cooperative Work*, ACM, New York, NY, November 8–12, pp. 495–504.
- Davenport, T.H. & Prusak, L., 1998, 'Working knowledge: How organisations manage what they know', *Harvard Business School Press* 24(1), 2. <https://doi.org/10.1145/348772.348775>
- Davis, F.D., 1989, 'Perceived usefulness, perceived ease of use, and user acceptance of information technology', *MIS Quarterly* 13(3), 319–340. <https://doi.org/10.2307/249008>
- Dervin, B., 2003, "'Sense-making's journey from metatheory to methodology to methods": An example using information seeking and use as research focus', in B. Dervin (ed.), *In sense-making methodology reader*, pp. 141–146, Hampton Press, New York, NY.
- Dervin, B., Foreman-Wernet, L. & Lauterbach, E., 2003, *Sense-making methodology reader: Selected writings of Brenda Dervin*, Hampton Press, Cresskill, NJ.
- Findlay, R., 1978, 'Relative backwardness, direct foreign investment, and the transfer of technology: A simple dynamic model', *The Quarterly Journal of Economics* 92(1), 1–16.
- Hatta, M. & Lubis, S., 2020, 'Disclosure of communication in the Facebook and impact social media on worship activities in Dakwah faculty students and science of communication media of North Sumatera State University (UINSU)', *Budapest International Research and Critics: Institute-Journal (BIRCJ-Journal)* 3(3), 2142–2148, viewed 10 April 2021, from www.bircu-journal.com/index.php/birc.
- Helms, R., Cranefield, J. & Reijisen, J.V., 2020, *Social media and knowledge management: A perfect couple*, pp. 1–13, University of Wellington, Victoria.
- Kaplan, A.M. & Haenlein, M., 2010, 'Users of the world, unite! The challenges and opportunities of SM', *Business Horizons* 53(1), 59–68. <https://doi.org/10.1016/j.bushor.2009.09.003>
- Kietzmann, J.H., Hermkens, K., McCarthy, I.P. & Silvestre, B.S., 2011, 'SM? Get serious! Understanding the functional building blocks of SM', *Business Horizons* 54(3), 241–251. <https://doi.org/10.1016/j.bushor.2011.01.005>
- Kudesia, R.S., 2017, 'Organizational sense-making', in O. Braddick (ed.), *Oxford research encyclopedia of psychology*, pp. 1–47, Oxford University Press, Oxford.
- Kuratko, D.F., Hornsby, J.S. & Covin, J.G., 2014, 'Diagnosing a firm's internal environment for corporate entrepreneurship', *Business Horizons* 57(1), 37–47. <https://doi.org/10.1016/j.bushor.2013.08.009>
- Leonardi, P.M., 2017, 'Information and organisation the SM revolution: Sharing and learning in the age of leaky knowledge', *Information and Organisation* 27(1), 47–59. <https://doi.org/10.1016/j.infoandorg.2017.01.004>
- Min, Q., Wu, G. & Liu, N., 2017, 'Developing an informal science education activity based on edmodo', in *Proceedings of the 2017 International conference on education and multimedia technology*, Association for Computing Machinery, Singapore, July 9–11, vol. 1, pp. 63–65.
- Muninger, M., Mahr, D. & Hammedi, W., 2022, 'SM use: A review of innovation management practices', *Journal of Business Research* 143(5), 140–156. <https://doi.org/10.1016/j.jbusres.2022.01.039>
- Namvar, M., Cybulski, J.L., Phang, C.S.C., Ee, Y.S. & Tan K.T.L., 2018, 'Simplifying sense-making: Concept, process, strengths, shortcomings, and ways forward for information systems in contemporary business environments', *Australasian Journal of Information Systems* 22, 1–10. <https://doi.org/10.3127/ajis.v22i0.1654>
- Ncoyini, S.S. & Cilliers, L., 2020, 'Factors that influence KM systems to improve KT in local government: A case study of Buffalo city metropolitan municipality, Eastern Cape, South Africa', *SA Journal of Human Resource Management* 18, 1–11. <https://doi.org/10.4102/sajhrm.v18i0.1147>
- Neeley, T.B. & Leonardi, P.M., 2018, 'Enacting knowledge strategy through SM: Passable trust and the paradox of network interactions', *Strategic Management Journal* 39(3), 922–946. <https://doi.org/10.1002/smj.2739>
- Nijssen, E.J. & Ordanini, A., 2020, 'How important is alignment of SM use and R&D – Marketing cooperation for innovation success?', *Journal of Business Research* 116(C), 1–12. <https://doi.org/10.1016/j.jbusres.2020.04.056>
- O'Hagan, A., 2019, 'Expert knowledge elicitation: Subjective but scientific', *The American Statistician* 73(1), 69–81. <https://doi.org/10.1080/00031305.2018.1518265>
- Parent, M., Plangger, K. & Bal, A., 2011, 'The new WTP: Willingness to participate', *Business Horizons* 54(3), 219–229. <https://doi.org/10.1016/j.bushor.2011.01.003>
- Parlak, G., De Souza, C.B. & Cerutti, F., 2022, 'Scrutinising community-held knowledge transfer into world heritage site management plans: A multidisciplinary method', *Journal of Cultural Heritage Management and Sustainable Development*, 2044–2266. <https://doi.org/10.1108/JCHMSD-12-2021-0216>
- Pirolli, P. & Card S., 2005, 'The sensemaking process and leverage points for analyst technology as identified through cognitive task analysis', in *Proceedings of international conference on intelligence analysis*, Palo Alto research Center (PARC), Palo Alto, CA, May 2, vol. 5, pp. 2–4.
- Ridley, M., 1997, *The origins of Virtue*, Penguin Books, New York, NY.
- Rothenberg, S. & Zygliopoulos, S.C., 2007, 'Determinants of environmental innovation adoption in the printing industry: The importance of task environment', *Business Strategy and the Environment* 16(1), 39–49. <https://doi.org/10.1002/bse.441>
- Safko, L. & Brake, D.K., 2009, *The social media Bible: Tactics, tools and strategies for business success*, John Wiley & Sons, Hoboken, NJ.
- Sandberg, J. & Tsoukas, H., 2020, 'Sensemaking reconsidered: Towards a broader understanding through phenomenology', *Organization Theory* 1(1), 1–34. <https://doi.org/10.1177/2631787719879937>

- Statista, 2021, *Global social networks ranked by number of users 2021*, viewed 20 May 2022, from <https://www.statista.com/>.
- Szilágyi, G.A., 2017, 'Exploration knowledge sharing networks using social network analysis methods', *Economics and Sociology* 10(3), 179–191. <https://doi.org/10.14254/2071-789X.2017/10-3/13>
- Szulanski, G., 1996, 'Exploring internal stickiness: Impediments to the transfer of best practice within the firm', *Strategic Management Journal* 17(Suppl. 2), 27–43. <https://doi.org/10.1002/smj.4250171105>
- Treem, J.W. & Leonardi, P.M., 2013, 'Social media use in organizations: Exploring the affordances of visibility, editability, persistence, and association', *Annals of the International Communication Association* 36(1), 143–189. <https://doi.org/10.1080/23808985.2013.11679130>
- Tsoukas, H., 2009, 'A dialogical approach to the creation of new knowledge in organisations', *Organisation Science* 20(6), 941–957. <https://doi.org/10.1287/orsc.1090.0435>
- Vaishnavi, V. & Kuechler, W., 2004, *Design research in information systems*, viewed 19 July 2017, from <http://desrist.org/design-research-in-informationsystems>.
- Van Den Berg, C. & Verhoeven, J.W.M., 2017, 'Understanding SM governance: Seizing opportunities, staying out of trouble', *Corporate Communications: An International Journal* 22(1), 149–164. <https://doi.org/10.1108/CCJ-06-2015-0035>
- Van Looy, A., 2016, *SM management technologies and strategies for creating business value*, Springer International, London.
- Weick, K.E., 1995, *Sense-making in organisations*, Sage, Thousand Oaks, CA.