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Huvila, Isto

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## Situational appropriation of information

### Abstract

**Keywords:** information management, knowledge management, situational appropriation, information, information use

**Purpose:** In contrast to the interest of describing and managing the social processes of knowing, information science and information and knowledge management research have put less emphasis on discussing how particular information becomes usable and how it is used in different contexts and situations. The aim of this exploratory text is to address this major gap, and introduce and discuss the applicability of the notion of *situational appropriation of information* for shedding light on this particular process in the context of daily information work practices of professionals.

**Design/methodology/approach:** The study is based on the analysis of 25 qualitative interviews of archives, library and museum professionals (ALM) conducted in two Nordic countries.

**Findings:** The study presents examples of how individuals appropriate different tangible and intangible assets as information on the basis of the situation in hand.

**Research limitations/implications:** The study proposes a new conceptual tool for articulating and conducting research on the process how information becomes useful in the situation in hand.

**Practical implications:** The situational appropriation of information perspective redefines the role of information management to incorporate a comprehensive awareness of the situations when information is useful and is being used. A better understanding how information becomes useful in diverse situations helps to discern the active role of contextual and situational effects and to exploit and take them into account as a part of the management of information and knowledge processes.

**Originality/value:** In contrast to orthodoxies of information science and information and knowledge management research, the notion of situational appropriation of information represents an alternative approach to the conceptualisation of information utilisation. It helps to frame particular types of instances of information use that are not necessarily addressed within the objectivistic, information seeker or learning oriented paradigms of information and knowledge management.

## Introduction

The last two decades of information science, information and knowledge management and organisational learning research have put increasing emphasis on the social and emergent nature of knowledge. The notions such as communities of practice (Wenger, 1998), dialogue (Isaacs, 1993), information cultures (Choo et al., 2008; Widén & Holmberg, 2012) and social capital (Nahapiet & Ghoshal, 1998; Widén-Wulff et al., 2008) have had a major impact on research and practice in these fields. In contrast to the earlier tendencies of perceiving information, and to a certain extent even knowledge, as an object-like resource, the broad paradigmatic view of knowledge work shared by the contemporary mainstream approaches focuses on the management of the premises of knowledge work, knowing and organisational learning rather than on the management of knowledge-objects (Newell et al., 2009). The tenet of the latter, non-object-

focused, line of research (e.g. Brown & Duguid, 2000; Wenger et al., 2002; Jonsson, 2007) is that because of the situationality and contextuality of knowledge and knowing, knowledge creation and discoveries can be planned and supported, but not directly made to happen. However, in contrast to the interest of describing and managing the social processes of knowing, information and knowledge management and information science research have put less emphasis on discussing the mechanisms of how knowledge happens, how particular information becomes exploitable, usable and useful, and how it is used in different contexts and situations (e.g., Savolainen, 2009a; Rowley, 2000).

The process as a whole and the parts of it have been conceptualised in the literature from a variety of perspectives using partly complementary, overlapping and synonymous notions including Sense-Making (Dervin, 2003), information utilisation (Todd, 1999), learning (e.g., Choo, 1996; Sinkula, 1994), or knowledge use (e.g. Valentine et al., 2012). Savolainen (2009b) notes that much of the recent discussion on these topics in information disciplines is characterised by a certain propensity for constructivism in a broad sense of the term.

The specific moment when something happens has been discussed in more specific terms as bricolage (e.g. Baker & Nelson, 2005; Garud & Karnøe, 2003) i.e. “resourcefulness and improvisation on the part of involved actors” (Garud & Karnøe, 2003), creativity (e.g. Smith & Paquette 2010; Saulais & Ermine 2012; Kuhlthau 2008; George 2007, “related to the capacities which allow ideas generation” Saulais & Ermine, 2012), sagacity (keenness of insight) (Koh, 2000; Cunha et al., 2010), bisociation (a capability to “join unrelated, often conflicting, information in a new way” Dubitzky et al. e.g., 2012) and, for instance, innovation (e.g., Esterhuizen et al., 2012; Iacono et al., 2012), defined by Baregheh et al. (2009, p. 1334) as “multi-stage process whereby organizations transform ideas into new/improved products, service or processes, in order to advance, compete and differentiate themselves successfully in their marketplace”.

Even if the scope of the studies of the moments and processes of enlightenment vary, the interest on extreme cases of insight, for instance, in science and scholarship (e.g., Andel, 1994) and business innovation (Bean & Radford, 2001) has tended to take precedence over mundane, often associative, discoveries (e.g. Dubitzky et al., 2012). Similarly, the discussion of the moments of insight have had a tendency to focus on the human side of the process without addressing the implications of the formative capability of tools and resources (as acknowledged, e.g. in the context of ANT, Law & Hassard, 1999, mangle of practice, Pickering, 1995 and new materialism, Coole & Frost, 2010), for instance, information. The human and information seeking centric approaches are useful in understanding the aftermath and projected consequences of information use (e.g., organisational learning as in Pérez-Bustamante, 1999) but less helpful in shedding light to the moment when particular pieces and sources of information are suddenly considered to be useful in the context of ordinary information practices.

The aim of this exploratory article is to discuss the applicability of the notion of *situational appropriation of information* in knowledge management and information research for explicating the forms and patterns of information use in the context of ordinary professionals information practices in order to provide new understanding of how particular pieces of information turn into

a useful assets in the context of daily information work practices of professionals. The discussion is based on the analysis of 25 interview transcripts in which knowledge workers (archives, library and museum professionals) describe their information use in the context of their professional work. This text focuses on the particular instances of information use that were found to be difficult to explain in terms of the earlier concepts of bricolage, creativity, sagacity, bisociation, Sense-Making and innovation, and appropriation in education (Billett, 1998) and arts (Schneider, 2003) research. We propose that a particular category of information use can be best explained as instances of situational appropriation of information. The practical and theoretical implications of the proposition are discussed in the light of the current empirical findings.

## Emergence of knowledge by other name

The process of how information turns to knowledge or knowledge emerges has been conceptualised in the literature from a range of different perspectives. A variety of partly complementary, overlapping and synonymous notions have been introduced in different strands of information and knowledge management research to describe the entire process and various parts of it.

Information science and management research has broadly assumed an information-centric perspective and focused on the process of how information turns to knowledge and knowing. The tenet of Dervin's (2003) influential Sense-Making approach is that people generally seek information when they encounter an obstacle that hinders them to achieve their goals. The approach conceptualises these obstacles as gaps and refers to "bridging the gap" as the activity when an individual seeks information and, in general, means to proceed with their pursuits. Sense-Making utilises open-ended interviews with a specific purpose of letting interviewees to "verb" or express their experiences in a particular situation to enquire into the gap, bridge and the process of gapbridging (Dervin, 1992).

In contrast to Sense-Making approach, which 'circles' around the notion of information, Todd's reference to the concept of information utilisation makes an explicit reference to the exploitation of *information* even if he discusses Dervin's framework as a part of the broader research framework of how information is utilised as a premiss of knowing. Todd concludes by pointing that even if it is intuitively understood that "information has the potential to make difference to what people know, the dynamics of this difference, particularly in terms of cognitive differences, is little understood" (Todd, 1999). A largely parallel concept to the notion of information use is knowledge use (e.g. Valentine et al., 2012). Instead of marking a fundamental difference between information and knowledge use *per se*, the conceptual variation can be explained by the differences of defining information, tacit and implicit knowledge in information science and (knowledge) management research.

The conceptualisation of the emergence of knowledge in terms of learning (e.g., Choo, 1996; Sinkula, 1994) differs from the information and knowledge centric perspectives in that the focus is placed on the process instead of its premises. The parallel nature of learning vs. information and knowledge centric approaches is conspicuous in the organisational learning vs. information

and knowledge management research. The two lines of research have similarities in their empirical agendas and knowledge interests but conceptual foundations of the two approaches are widely different (Pun & Nathai-Balkissoon, 2011).

Savolainen (2009b) notes that much of the recent discussion on these topics in information disciplines is characterised by a certain propensity for constructivism in a broad sense of the term. The specific moment when something happens has been discussed in more specific terms, for instance, as bricolage (Baker & Nelson, 2005; Garud & Karnøe, 2003), creativity (e.g., Smith & Paquette, 2010; Saulais & Ermine, 2012; Kuhlthau, 2008), sagacity (Cunha et al., 2010), bisociation (e.g., Dubitzky et al., 2012; Garud & Karnøe, 2003) and innovation (e.g., Esterhuizen et al., 2012; Iacono et al., 2012). Even if the scope of these latter types of studies vary, they have a strong tendency to focus on extreme cases of sagacity, for instance, in science and scholarship (e.g., Andel, 1994) and business innovation (Bean & Radford, 2001). At the same time, these notions have an inclination to focus to the human side of the process without addressing the implications of the formative capability of tools and resources (as acknowledged, e.g. in the context of ANT Law & Hassard, 1999, mangle of practice Pickering, 1995 and new materialism, Coole & Frost, 2010), for instance, information. The human-centric approaches are useful in understanding the aftermath and projected consequences of information use (e.g., organisational learning as in Pérez-Bustamante, 1999) has been used instead of addressing the moment when particular pieces and sources of information are suddenly considered to be useful in the context of ordinary information practices.

## Information use and the situational appropriation of information

The somewhat sporadically cited notion of *situational appropriation* can be traced back to two different ideas of appropriation discussed in the context of sociology and cultural studies, and in technology studies. In cultural studies, the notion is typically used as a pejorative term related to the concept of acculturation (Berry, 1997) whereas the social studies of technology (SST) sees appropriation mainly as a sign of how people exploit technologies in creative ways not anticipated by their designers (e.g, Orlikowski, 1992; Mackay & Gillespie, 1992). The appropriation of technology can be highly instrumental even if it has a tendency to have “institutional consequences” (Orlikowski, 1992). This paper refers to situational appropriation in the latter context as a (potentially) positive and creative use of things in particular situations (as e.g., in Ramiller & Chiasson, 2008; Twidale et al., 2008) in contrast to an opportunistic and non-friendly exploitation of situation. This point of view does not suggest that information *per se* would be a thing rather than a relational and processual entity, but similarly to Buckland (1991) posits that people occasionally treat (or here, *use*) it as a thing.

This proposed idea of the situational appropriation of information differs from the notion of *appropriation of knowledge* (AoK) in one significant sense. The AoK is used in Vygotskian and Piagetian (Billett, 1998) inspired educational research to refer to a process in which people reproduce rather than inherit knowledge (Leontyev, 2009). Appropriation “involves an interpretative appraisal and construction of knowledge by individuals, rather than being a faithful

representation of externally-derived stimuli.” (Billett, 1995). Rogoff (1995) takes one step further by stressing with her concept of participatory appropriation that the change encompasses the individual as a whole. In the AoK, the basic process of appropriation is similar to the situational appropriation of information, but as our empirical study shows, the appropriation of information does not involve a comparable level of mastery, depth of engagement or making knowledge to one’s own. People find and appropriate information in their everyday work in a manner that resembles the instrumental levels of the engagement with technologies documented in the STS literature. In contrast to the appropriation of knowledge, information is appropriated as a part of the (situation of) use (Mackay & Gillespie, 1992) rather than as a ‘part’ of the actor (Leontyev, 2009).

Similarly to how the adoption of the ICTs to fit in particular cultural settings with distinct characteristics and societal needs has been described as a situational appropriation rather than a reception of commodity (Feyten & Nutta, 1999, p. 3), we argue that the exploitation of information is not necessarily best described only as a human-centric processes of finding, receiving and ‘using’ information, bricolage (Baker & Nelson, 2005; Garud & Karnøe, 2003), creativity (e.g., Smith & Paquette, 2010; Saulais & Ermine, 2012; Kuhlthau, 2008), innovation (e.g., Esterhuizen et al., 2012; Iacono et al., 2012), or in more general sense sagacity (Cunha et al., 2010), bisociation (e.g., Dubitzky et al., 2012; Garud & Karnøe, 2003), Sense-Making (Dervin, 2003) or learning. The notions of creativity and bisociation foreground arbitrary associations, bricolage and improvisation focus on somewhat different aspects of the reuse and reorganisation of information, sagacity and Sense-Making the cognitive dimension of the information processing, and innovation the significance of the generation of new ideas from the human point of view, but none of the approaches is specific about that what happens to information when it becomes informational in a particular context. We argue that the notion of situational appropriation can be useful precisely here defined as *the use of a potentially informative thing to inform in a particular situation*.

## Material and methods

This study is based on the analysis of 25 qualitative interviews of archives, library and museum professionals (ALM) conducted in two Nordic countries in 2009-2011. The interviews were semi-structured and based on the thematic interview approach of Hirsjärvi and Hurme (1995). The interviews focussed on the seeking, use and creation of information work as a part of the informants’ professional work. Informants were asked to reflect upon their information work and, inspired by the critical incident technique, to describe actual cases of using, creating and seeking information. All interviews were recorded and transcribed. The interviews lasted between 60 and 120 minutes. The author analysed the transcribed interviews together with the original recordings using the constant comparative method (Glaser & Strauss, 1967). The results were revisited and revised after one month of the original categorisation for assessing its validity, and again one month later, reanalysed using negative case analysis (Lincoln & Guba, 1985, pp. 309-313) with a specific purpose of finding contradictory evidence that would decrease the reliability of the

drawn conclusions.

The choice of informants was motivated by an assumption that ALM professionals operate in different but in many aspects converging environments where the seeking, use and communication of information and knowledge play a significant role. ALM professionals may also be expected to possess a certain level of expertise in seeking and communicating qualified information in their areas of expertise. On the basis of earlier research (e.g. Zach, 2006; Hedman, 2006), the informants were assumed to work with a core set of institution and work related information sources to which the peripheral information sources and approaches of acquiring information could be contrasted with a relative ease and reliability.

Seven of the informants were men and fifteen women. 17 informants had at least 10 years working experience either in archives, libraries or museums. All informants represented local and regional institutions, or regional offices of national institutions. Their work duties ranged from customer services to marketing, collection management and administration. In order to preserve the anonymity of the informants, this article refers to them using pseudonyms (typed in italics).

## Analysis

The analysis of the interview data shows that examples of situational appropriation of information could be found in all individual accounts. Appropriation seemed to be often linked to relatively systematic and pre-programmed on-going pursuits of discovering particular types of information, or to stable partnerships and memberships in informational communities.

A central premiss of the situational appropriation of information seemed to be an awareness of information, which turned out to be useful in an emerging situation. For instance, *Mary* described how she was aware that a person wrote a master's thesis on a particular topic when her employer began to plan an exhibition on a related topic. In some cases usability was discovered by the prospective user of information, but in some cases another person can become aware of that someone else is in such a situation. *Moses* recalled an incident when a colleague had provided him useful information when she became aware a project he was working with.

The situational appropriation of information has also a tendency to involve a degree of uncertainty even if the appropriation itself is not directly triggered by a serendipitous discovery. In contrast to accidental information discovery (Rubin et al., 2011), the serendipity of appropriative information use relates to a sense of fortuity in the original discovery of information rather than serendipity in the process of appropriation. The most 'accidents' in the analysed material could be described as being rather systematic (Garfield, 2004) (i.e. planned and expected) and related to relatively stable contextual affiliations. It is apparent that this context is often the own organisation. *Moses* described how he had been able to use information of the topical expertise of a colleague to appropriate her knowledge in his book club project. Other examples show, however, that the context does not have to be internal to an organisation. *Mary* had contacts within the local university she frequently used. Her museum had received a touring exhibition from a partner museum and rather quickly she realised that she knew a researcher who worked on that specific topic. The same kind of appropriation of information about the interests

and expertise of her academic contacts had helped her also in the development of earlier exhibitions: “NN just happens to write his doctoral dissertation on the same topic, by chance. It’s going to be finished this year and we got this exhibition this autumn”. The unexpectedness of the situation stood out in the interview of *Muller*. He described his work as a tour guide and how he generated personalised tours for different types of groups on the basis of a certain, mostly adequate, but still limited amount of information on a particular exhibition.

In contrast to the partly serendipitous coincidences described by *Moses* and *Mary*, *Harry* described how he used a specific library collection as a stock of information he used as a starting point for understanding a problem described by a visitor he was trying to help. He appropriated a selection of literature held by the library as sufficient information for understanding a particular topic. *Denham* shared the same premise of the informationality of a library collection, but described also how a book club can function as a similar provider of sufficient information on a particular topic for making educated decisions. These examples highlight another pertinent characteristic of situational appropriation. In contrast to the conceptualisations of information use as a form of satisficing or rational activity aiming at best existing knowledge, the situational appropriation of information builds on an assumption that an individual simultaneously both appropriates an informative thing as information and its sufficiency to explain a phenomenon or to solve a problem in a given situation. Similarly to how *Hardin* (2009) argues that almost all ordinary knowing is based on “good enough” rather than in most cases unattainable comprehensive knowledge, the premise of the situational appropriation of information is that the becoming of information is a part of making a decision of its goodness and sufficiency in a particular situation.

The origins of the information can also be infrastructural or obscure rather than explicit. *Ellen* described how she might search for information, in her words “randomly”, but at the same time very systematically with the help of her knowledge of the general possibilities to find things at her workplace: “if it would be something related to gasworks, I would look at the Energy board – they worked on these kinds of matters – I would go to the archives and see what’s in there. Then I would look at [search program] and use the full-text search”. Even if there would be deep systematicity in the randomness of searching, it can be difficult to explicate the origins of a particular piece of information. Several informants described vividly different information sources they tended to consult, but similarly to the informants of earlier studies (e.g., *Bouwman et al.*, 1987), for instance, *Tony* acknowledged that he seldom knew why he knew: “you don’t even think how did you found out about it for the first time. It’s just there somewhere and then like a book or paper or something comes”.

This process of situational appropriation involves a degree of foresight to be able to apply information in use, but in contrast to how sagacity is typically described as a capability to draw an unexpected connection (*André et al.*, 2009), appropriation is driven by a situation that can make theoretically any information useful and exploitable. Both *Matron* and *Slatter* told that they tend to find information by reading newspapers that turn out to be relevant in the context of specific archival documents and their offices of origin. In contrast to purposeful information seeking and use, the information was not necessarily *about* archival documents or archives



related matters, but described, for instance, policy changes (*Slatter*), a death of an individual with a personal archives at the archives institution (*Matron*) or on-going re-organisation of the public authorities (*Matron*) or other offices of origin that have impact on their archives and records management processes. *Mary* describes another instance of appropriation when she was collecting research material and because she had heard of a new study and research method, she knew how to collect the materials in a way that helped her colleagues to conduct an analysis using this new approach. In both cases, the information was not useful per se, but the informants could let the emerging situation *make it* usable.

Simultaneously with making information relevant, the situation also (re)defines the context of relevance of the information. *Fison* told about her reluctance to use email, for instance, to make critical remarks and suggestions on how projects are run because of the possibility that someone might forward them third persons who might in a particular situation take them as indicative of something they were not meant to be. She had earlier experiences of receiving forwarded messages that were personal, and as such suitable but clearly inappropriate for public distribution. The example shows how a situation (public vs. private) can change the nature of information. The studies on the social shaping of technology have shown how the appropriation of specific technologies can change their identity and essential meaning even if they would be encoded to have preferred forms of use and interpretation (Mackay & Gillespie, 1992). Similarly, even if a particular thing would have been created to be informative in a particular way, the situation when it is appropriated by another individual might change it to become informative in another way.

In addition to instances of situational appropriation, the interview material contains references to other forms of information seeking and use and serendipitous and planned discoveries of useful information. These instances are characterised by the primacy of information activity. *Marston* told that she often discussed with her colleague on different cultural studies related topics. They both shared interest in the field and she considered that these conversations provided her an important channel for obtaining new information and developing new ideas. Even if the discussions apparently helped both *Marston* and her colleague to obtain information and create new knowledge, the process was different from such cases when information was appropriated in an emerging situation.

## Discussion

We argue that the notion of situational appropriation is useful in describing such instances of information use when a situation makes such information relevant and useful that is already known by an individual or a group, or given by the context of their activity. This perception is in a direct contrast to orthodoxies of information seeking and utilisation on the primacy of an information need as a trigger for a process of seeking and searching for 'new' information. Similarly, it takes a diagonally different approach to objectifying paradigm of information (and knowledge) by underlining the role of a situation in how we make different things informative. It addresses the major gap in information science research related to the lack of understanding of the mechanisms of how knowledge happens, how specific information becomes exploitable,

usable and useful, and how information is used in a situation in hand (e.g., Savolainen, 2009a; Rowley, 2000).

In contrast to typical conceptualisations of information utilisation, the notion of situated appropriation of information shifts emphasis from the information, problem and task centric views to the direction of an affirmative rather than a negative perspective of information seeking and use. Similarly to, for instance, Kari and Hartel (2007) and Dörk et al. (2011), information activities are seen as 'positive' rather than problem-oriented phenomena. Instead of framing (particular) information as a (relevant) answer to a specific question, the perspective opens information as a creative exploitable resource for addressing different types of questions in daily information work.

Acknowledging the openness of information frames also another critical aspect of information and knowledge management research. As Budd with colleagues (Budd, 2013; Erdelez et al., 2011) underlines, information (or knowledge) is not simply given and it is not a solitary but a relational phenomenon without a determinate result. The premise of knowledge management of capturing knowledge within a organisation (both in the positivistic terms as 'objects', or in terms of organisational learning) can be described in terms of developing better opportunities for situational appropriation of different types of information. Enabling and fostering the processes of situational appropriation of information can be linked to improvements in organisational and individual performance. Similarly to how Carayannis (2011) underlines the significance of serendipitous appropriation of knowledge as a premise of sustainable entrepreneurship, we suggest that functioning practices of situational appropriation of information are necessary for the sustainability of daily work practices. The formal acquisition of knowledge has shown to be especially useful in knowledge-poor environments (Carayannis, 2011). It may be suggested that active information seeking can be similarly effective in information-poor conditions whereas the situational appropriation of information becomes a critical process in everyday work when information (in general) is plentiful.

Similarly to how pedagogical research has underlined the diversity of learning styles (Felder & Silverman, 1988 [2002]; Kolb, 1981) and systems research the need to support different kinds of use (Twidale et al., 2008), the present findings and the general perspective of the situational appropriation of information suggest of the benefits of planning for different kinds of information use. Similarly to how Mackay and Gillespie (1992) note that different technologies are encoded to facilitate particular, preferred ends and how information can be more or less "relevant" (Huang & Soergel, 2012; Hjørland, 2010) for particular tasks, it can be easier or more difficult to appropriate information for specific situations. The appropriability of information does not need to be directly related to specific uses, groups of users or their individual or social attributes but to the structure and dynamics of the situation when information is utilised. For instance, in the work of the interviewed professionals, museum professionals, visitors and researchers could all benefit of similar kind of information (e.g. objects in the collections) even if their other premises of using it were diagonally different from each other. To an even broader extent, different library user can borrow very different kinds of books to be used in highly similar situations of seeking entertainment, learning about a new hobby, starting a research project or solving a professional

problem. The same can be extended to the use of other potentially informative things from corporate contexts to private life.

Unlike the concepts of bricolage (Baker & Nelson, 2005; Garud & Karnøe, 2003), creativity (e.g., Smith & Paquette, 2010; Saulais & Ermine, 2012; Kuhlthau, 2008), sagacity (Cunha et al., 2010), bisociation (e.g., Dubitzky et al., 2012; Garud & Karnøe, 2003), Sense-Making (Dervin, 2003) and, for instance, innovation (e.g., Esterhuizen et al., 2012; Iacono et al., 2012), the situational appropriation of information is situation driven and based on the application of existing instrument (information) in an emerging situation. In spite of the existence of pre-programmed preferential uses, information can be applied in many different ways, and similarly to how Twidale et al. (2008) suggest that “a successful system is likely to be one that supports appropriation, where people use it in productive ways that the designers had never intended” it might be suggested on a more abstract level that a successful information ecology (as defined in Davenport & Prusak, 1997) is open to the situational appropriation of information. There is, however, a major difference between how certain situational factors provide perimeters for information use and the type of systematic appropriability (compare with the systematic serendipity of Garfield, 2004) embedded in a systematically designed appropriation-friendly information system or organisational ecology.

The proposition describing the emergence of knowledge as situational appropriation may be criticised of the same ignorance of symbolic systems and planned action (Bardram, 1997; Vera & Simon, 1993) as Suchman’s (1987) notion of situated action. It is necessary to stress that we are not suggesting that all knowing could be described from the premises of situations or appropriation. Other forms of information utilisation including learning, Sense-Making and creativity are appropriate for describing circumstances when, for instance, the role of situation is less prominent and the process itself does not conform to the notion of appropriation. An important topic for future research in knowledge management and information science is to analyse the relations of the diverse conceptualisations of information use, utilisation, creativity, learning and innovation, and on a more profound level, the social, cultural and cognitive mechanisms of how information and information systems are related to moments when knowledge happens.

## Conclusions

In contrast to the earlier objectifying, individual and information rather than context and situation centric approaches of framing information use, the present study proposes a radically different perspective to conceptualising information use as situational appropriation of information. Instead focusing on what information is being used in a context, it shifts the focus on how knowledge and information become (and are made) useful in a particular situation. Situational appropriation is not a catchall concept for explaining the whole variety of how information can be utilised in individual and social knowledge processes in the context of work and leisure. Instead, it helps to frame particular types of instances of information use that are not addressed within the objectivistic, information seeker or learning oriented paradigms of information and knowledge

management. At the same time, the situational appropriation provides an alternative mid-level concept for framing how the results of information seeking (information) are turned (or turns) to an informational ingredient of non-informational practices.

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## References

- Andel, P. V. (1994). Anatomy of the Unsought Finding. Serendipity: Origin, History, Domains, Traditions, Appearances, Patterns and Programmability. *The British Journal for the Philosophy of Science*, 45(2), 631–648.
- André, P., schraefel, m., Teevan, J., & Dumais, S. T. (2009). Discovery is never by chance: designing for (un)serendipity. In *Proceedings of the seventh ACM conference on Creativity and cognition*, (pp. 305–314). New York: ACM.
- Baker, T., & Nelson, R. E. (2005). Creating Something from Nothing: Resource Construction through Entrepreneurial Bricolage. *Administrative Science Quarterly*, 50(3), 329–366.
- Bardram, J. E. (1997). Plans as situated action: an activity theory approach to workflow systems. In *Proceedings of the fifth conference on European Conference on Computer-Supported Cooperative Work*, (pp. 17–32).
- Baregheh, A., Rowley, J., & Sambrook, S. (2009). Towards a multidisciplinary definition of innovation. *Management Decision*, 47(8), 1323–1339.
- Bean, R., & Radford, R. W. (2001). *The Business of Innovation: Managing the Corporate Imagination for Maximum Results*. New York: AMA.
- Berry, J. W. (1997). Immigration, Acculturation, and Adaptation. *Applied Psychology*, 46(1), 5–34.
- Billett, S. (1995). Workplace learning: its potential and limitations. *Education + Training*, 37(5), 20–27.
- Billett, S. (1998). Appropriation and ontogeny: identifying compatibility between cognitive and sociocultural contributions to adult learning and development. *International Journal of Lifelong Education*, 17(1), 21–34.
- Bouwman, M. J., Frishkoff, P. A., & Frishkoff, P. (1987). How do financial analysts make decisions? A process model of the investment screening decision. *Accounting, Organizations and Society*, 12(1), 1–29.
- Brown, J. S., & Duguid, P. (2000). *The Social Life of Information*. Boston: Harvard Business School Press.
- Buckland, M. (1991). Information as thing. *JASIS*, 42(5), 351–360.
- Budd, J. M. (2013). Re-Conceiving Information Studies: A Quantum Approach. *JDOC*, 69(4).
- Carayannis, E. (2011). Knowledge Arbitrage, Serendipity, and Acquisition Formality: Their Effects on Sustainable Entrepreneurial Activity in Regions. *IEEE Transactions on Engineering Management*, 58(3), 564–577.
- Choo, C. W. (1996). The knowing organization: How organizations use information to construct meaning, create knowledge and make decisions. *International Journal of Information Management*, 16(5), 329–340.
- Choo, C. W., Bergeron, P., Detlor, B., & Heaton, L. (2008). Information culture and information use: An exploratory study of three organizations. *JASIST*, 59(5), 792–804.

- Coole, D., & Frost, S. (Eds.) (2010). *New Materialisms: Ontology, Agency, and Politics*. Durham, NC: Duke University Press.
- Cunha, M. P. e., Clegg, S. R., & Mendonca, S. (2010). On serendipity and organizing. *European Management Journal*, 28(5), 319–330.
- Davenport, T. H., & Prusak, L. (1997). *Working Knowledge: How Organizations Manage What They Know*. Boston: Harvard Business School Press.
- Dervin, B. (1992). *Qualitative research in information management*, chap. From the mind's eye of the "user": The sense-making qualitative-quantitative methodology, (pp. 61–84). Englewood Cliffs, CO: Libraries Unlimited.
- Dervin, B. (2003). Sense-Making's Journey from Metatheory to Methodology to Method. In B. Dervin, L. Foreman-Wernet, & H. Lanterbach (Eds.) *Sense-Making Methodology Reader: Selected Writings of Brenda Dervin*, (pp. 133–164). Cresskill, NJ: Hampton Press.
- Dörk, M., Carpendale, S., & Williamson, C. (2011). The Information Flaneur: A Fresh Look at Information Seeking. In *CHI 2011, May 7–12, 2011, Vancouver*.
- Dubitzky, W., Kötter, T., Schmidt, O., & Berthold, M. R. (2012). Towards creative information exploration based on Koestler's concept of bisociation. In M. R. Berthold (Ed.) *Bisociative Knowledge Discovery*, (pp. 11–32). Berlin, Heidelberg: Springer-Verlag.
- Erdelez, S., Budd, J. M., Rubin, V. L., Burkell, J., & Quan-Haase, A. (2011). Avoiding determinism: New research into the discovery of information. *Proc. Am. Soc. Info. Sci. Tech.*, 48(1), 1–2.  
URL <http://dx.doi.org/10.1002/meet.2011.14504801207>
- Esterhuizen, D., Schutte, C., & du Toit, A. (2012). Knowledge creation processes as critical enablers for innovation. *International Journal of Information Management*, 32(4), 354 – 364.
- Felder, R. M., & Silverman, L. K. (1988 [2002]). Learning and teaching styles in engineering education. *Engineering education*, 78(7), 674–681.  
URL <http://www4.ncsu.edu/unity/lockers/users/f/felder/public/Papers/LS-1988.pdf>
- Feyten, C. M., & Nutta, J. W. (1999). Mapping Space and Time: Virtual Instruction as Global Ritual. In C. M. Feyten, & J. W. Nutta (Eds.) *Virtual Instruction: Issues and Insights from an International Perspective*, (pp. 1–5). Englewood, CO: Libraries Unlimited.
- Garfield, E. (2004). Systematic serendipity: finding the undiscovered answers to science questions. In *Presentation at the Medical ignorance collaboratory, University of Arizona, Tucson*.  
URL <http://www.garfield.library.upenn.edu/papers/az072004.pdf>
- Garud, R., & Karnøe, P. (2003). Bricolage versus breakthrough: distributed and embedded agency in technology entrepreneurship. *Research Policy*, 32, 277–300.
- George, J. M. (2007). Creativity in Organizations. *The Academy of Management Annals*, 1(1), 439–477.
- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Hawthorne: Aldine.
- Hardin, R. (2009). *How do you know? : the economics of ordinary knowledges*. Princeton: Princeton University Press.
- Hedman, J. (2006). Högskolebibliotekariersinformationsökning i teoretisk belysning. *Svensk Biblioteksforskning*, 15(2), 1–14.
- Hirsjärvi, S., & Hurme, H. (1995). *Teemahaastattelu*. Helsinki: Yliopistopaino.
- Hjørland, B. (2010). The foundation of the concept of relevance. *JASIST*, 61(2), 217–237.
- Huang, X., & Soergel, D. (2012). Relevance: An improved framework for explicating the notion. *JASIST*.
- Iacono, M. P., Martinez, M., Mangia, G., & Galdiero, C. (2012). Knowledge creation and inter-

- organizational relationships: the development of innovation in the railway industry. *Journal of Knowledge Management*, 16(4), 604–616.
- Isaacs, W. N. (1993). Taking flight: Dialogue, collective thinking, and organizational learning. *Organizational Dynamics*, 22(2), 24–39.
- Jonsson, A. (2007). *Knowledge sharing across borders : a study in the IKEA world*. Ph.D. thesis, Lund Business Press, Lund.
- Kari, J., & Hartel, J. (2007). Information and higher things in life: Addressing the pleasurable and the profound in information science. *JASIST*, 58(8), 1131–1147.
- Koh, A.-T. (2000). Linking learning, knowledge creation, and business creativity: A preliminary assessment of the East Asian quest for creativity. *Technological Forecasting and Social Change*, 64(1), 85–100.
- Kolb, D. A. (1981). Learning styles and disciplinary differences. *The modern American college*, (pp. 232–255).
- Kuhlthau, C. C. (2008). From Information to Meaning: Confronting Challenges of the Twenty-first Century. *Libri*, 58(2), 66–73.
- Law, J., & Hassard, J. (Eds.) (1999). *Actor Network Theory and After*. Oxford: Blackwell.
- Leontyev, A. N. (2009). *The Development of Mind*. Pacifica, CA: Marxists Internet Archive.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. Beverly Hills: Sage.
- Mackay, H., & Gillespie, G. (1992). Extending the Social Shaping of Technology Approach: Ideology and Appropriation. *Social Studies of Science*, 22(4), 685–716.
- Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review*, 23(2), 242–266.
- Newell, S., Robertson, M., Scarbrough, H., & Swan, J. (2009). *Managing knowledge work and innovation*. Basingstoke; New York: Palgrave Macmillan, 2 ed.
- Orlikowski, W. J. (1992). The Duality of Technology: Rethinking the Concept of Technology in Organizations. *Organization Science*, 3(3), 398–427.
- Pérez-Bustamante, G. (1999). Knowledge management in agile innovative organisations. *Journal of Knowledge Management*, 3(1), 6–17.
- Pickering, A. (1995). *The Mangle of Practice: Time, Agency, and Science*. Chicago: University of Chicago Press.
- Pun, K. F., & Nathai-Balkissoon, M. (2011). Integrating knowledge management into organisational learning: A review of concepts and models. *Learning Organization*, 18(3), 203–223.
- Ramiller, N. C., & Chiasson, M. (2008). The Service Behind the Service: Sensegiving in the Service Economy. In M. Barrett, E. Davidson, C. Middleton, & J. I. DeGross (Eds.) *IFIP The International Federation for Information Processing*, vol. 267, (pp. 117–126). Springer.  
URL [http://dx.doi.org/10.1007/978-0-387-09768-8\\_8](http://dx.doi.org/10.1007/978-0-387-09768-8_8)
- Rogoff, B. (1995). Observing sociocultural activities on three planes: participatory appropriation, guided appropriation and apprenticeship. In J. V. Wertsch, P. D. Rio, & A. Alvarez (Eds.) *Sociocultural studies of the mind*, (pp. 139–164). Cambridge: Cambridge University Press.
- Rowley, J. (2000). From learning organisation to knowledge entrepreneur. *Journal of Knowledge Management*, 4(1), 7–15.
- Rubin, V. L., Burkell, J., & Quan-Haase, A. (2011). Facets of serendipity in everyday chance encounters: a grounded theory approach to blog analysis. *Information Research*, 16(3).  
URL <http://informationr.net/ir/16-3/paper488.html>
- Saulais, P. J., & Ermine, J.-L. (2012). Creativity and Knowledge Management. *VINE*, 42(3), 416–438.
- Savolainen, R. (2009a). Information use and information processing: Comparison of

- conceptualizations. *Journal of Documentation*, 65(2), 187–207.
- Savolainen, R. (2009b). Small world and information grounds as contexts of information seeking and sharing. *Library & Information Science Research*, 31(1), 38 – 45.
- Schneider, A. (2003). On appropriation. A critical reappraisal of the concept and its application in global art practices. *Social Anthropology*, 11(2), 215–229.
- Sinkula, J. M. (1994). Market Information Processing and Organizational Learning. *Journal of Marketing*, 58(1), 35–45.
- Smith, S., & Paquette, S. (2010). Creativity, chaos and knowledge management. *Business Information Review*, 27(2), 118–123.
- Suchman, L. (1987). *Plans and Situated Actions*. Cambridge University Press.
- Todd, R. J. (1999). Back to our beginnings: information utilization, Bertram Brookes and the fundamental equation of information science. *Information Processing & Management*, 35(6), 851–870.
- Twidale, M. B., Gruzd, A. A., & Nichols, D. M. (2008). Writing in the library: Exploring tighter integration of digital library use with the writing process. *Information Processing & Management*, 44(2), 558 – 580.
- Valentine, M. A., Staats, B. R., & Edmondson, A. C. (2012). The Rich Get Richer: Enabling Conditions for Knowledge Use in Organizational Work Teams. Tech. rep., Harvard Business School, Cambridge, MA.
- Vera, A. H., & Simon, H. A. (1993). Situated action: A symbolic interpretation. *Cognitive Science*, 17(1), 7–48.
- Wenger, E. (1998). *Communities of Practice: Learning, Meaning, and Identity*. Cambridge: Cambridge University Press.
- Wenger, E., McDermott, R., & Snyder, W. M. (2002). *Cultivating communities of practice : a guide to managing knowledge*. Cambridge, MA: Harvard Business School Press.
- Widén, G., & Holmberg, K. (Eds.) (2012). *Social information research*. Bingley: Emerald.
- Widén-Wulff, G., Ek, S., Ginman, M., Perttilä, R., Södergård, P., & Tötterman, A.-K. (2008). Information behaviour meets social capital: a conceptual model. *Journal of Information Science*, 34(3), 346–355.
- Zach, L. (2006). Using a Multiple-Case Studies Design to Investigate the Information-Seeking Behavior of Arts Administrators. *Library Trends*, 55(1), 4–21.