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Isabel D. W. Rechberg
CUNY College of Staten Island

Jawad Syed
University of Huddersfield

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Appropriation or Participation of the Individual in Knowledge Management

Isabel D. W. Rechberg
<https://orcid.org/0000-0003-0606-5668>
Chazanoff School of Business, Management
Department, City University of New York,
New York City, New York, USA
NY 10314, USA.
Email: isabel.rechberg@csi.cuny.edu

Jawad Syed
Suleman Dawood School of Business,
Lahore University of Management Sciences, Pakistan

Abstract

Purpose- This review paper examines whether there is a tendency towards appropriation or participation of the individual in the literature of knowledge management (KM).

Design/methodology/approach- This is a literature review paper. In terms of approach, appropriation in this paper is referred to as the KM tasks assigned to individual employees by the management whereas participation is referred to as KM tasks determined jointly by individuals and management.

Findings- The review suggests that while the participation of individuals is seen as important for KM, the KM discourse and practice is visibly oriented towards the appropriation of individual employees and their knowledge for better economic performance of organisations. The review suggests that an appropriation of the individual in KM serves neither employees nor organisations, and that individual employees are meant to be valued participants in the development and management of knowledge.

Research limitations/implications- The paper is concerned with the KM literature to study the appropriation or participation of individual employees in the discourse on KM. Therefore, other streams of literature that address individual employees are excluded from this study.

Originality/value- The paper initiates a new research agenda for KM where the emphasis shifts from the appropriation to the participation of the individual in the discourse on KM practices.

Keywords- Appropriation, individual, knowledge, management, participation

Paper type- Research paper

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Introduction

The term knowledge management (hereafter KM), presented as an organisational activity that leads to success (Sveiby, 1997), is a stimulator for discussion and subject to a wide range of interpretations (Akehurst *et al.*, 2011; Davenport *et al.*, 1998). Neff (1999) noted that KM could be “anything the client wants it to be” (p.115). Current studies on KM mainly address the management of individual knowledge by highlighting the role of technology and memory systems in KM (Choi *et al.*, 2010), knowledge governance (Coa and Xiang, 2012), and the role of human capital and social factors (Nonaka and von Krogh, 2009; Stevens and Helm, 2010; Thomas *et al.*, 2010). There is, however, very little attention paid to the role of individual employees’ participation in KM in organisations (Nonaka and Peltokorpi, 2006; Orlikowski, 2002; Rechberg and Syed, 2012; Swan *et al.*, 1999; von Krogh *et al.*, 2000; Wang and Noe, 2010), even though knowledge is recognised to be rooted in the individual (Argote and Miron-Spektor, 2011; Polanyi, 1998). Organisation theorists hold that the collective knowledge of individuals needs to be managed (Barney, 1991; Penrose, 1959), and generally, it is the senior managers who choose how to manage knowledge (Beijerse, 2000; Carrión *et al.*, 2004; Fahey and Prusak, 1998; Grant, 1996; Roomi and Mojibi, 2011; Salojärvi *et al.*, 2005). Overall, there is an excessive focus of the KM literature on knowledge appropriation as distinct from knowledge practice and participation. The present paper reviews the role individual employees may play in developing and implementing of KM, to identify if there is a need to redirect the current discourse on KM.

Informed by several pioneer studies in the KM discipline (e.g. Nonaka and Takeuchi, 1995; Sveiby, 1997; Wiig, 1993), we investigate the foundation of KM. The question asked is whether the appropriation or participation of the individual is needed for a successful KM strategy. Informed by Wilkinson’s (1998) critique on the empowerment literature, this study explores the due role of the individual (who we treat as knowledge carrier) in the discussion around KM strategies, considering possible implications to manage knowledge in organisations. By appropriation of individuals, we refer to situations where individual knowledge is claimed and KM activities implemented by management to enhance organisational effectiveness. Participation implies that individual employees are actively engaged in conceiving, designing and implementing the KM activities they believe to be critical, to enhance their individual as well as organisational effectiveness.

We begin this study by offering an overview of the discussions on knowledge and management. Subsequently, the notions of individual and individual forms of knowledge are introduced. This is followed by a discussion of the foundational grounds of KM, particularly in relation to the individual. A reflection on the drivers of KM allows for understanding whether there is a tendency towards an appropriation or participation of the individual in the KM discourse, which in turn will guide the recommendations and implications of this study.

Foundations of knowledge

The origin of the word knowledge is twofold. The word ‘know’ draws from the Latin word *noscere*, and means ‘to know’ while ‘ledge’ means ‘action’ and ‘process’ (Searle, 1969 in Senge *et al.*, 1999, p. 421). Knowledge consequently is to know an action or process. In this section some of the extensive literature on the philosophical foundations of knowledge is discussed followed by an interpretation of knowledge as a managerial tool, as it is used in management practices today.

Knowledge in classical philosophy

'What is knowledge?' has been debated in China since 550 B.C. in the lessons of Confucius, and in Greece since 430 B.C. in the doctrines of Plato. Through Plato's (427-347 B.C.) teachings, we learn that knowledge is a justified true belief (Cornford, 1957). To have knowledge, the justified true belief has to have an account – a theory or explanation – an idea or form that has been perceived by an individual (Campbell, 1883). Knowledge, according to Aristotle (384–322 B.C.) is derived at through an individual's perception and is thereafter personal. Not all humans see a 'form' in the same way (Allan, 1952); observation and judgments can vary and therefore the perceived understanding of a form as knowledge (Nonaka and Takeuchi, 1995; White, 1998). Aristotle further distinguished between 'knowing *what*' and 'knowing *how*' (Pears, 1971). The divergence is that knowledge can be attained through an individual's personal experience or by taking note of someone else's experience: beginning with the individual.

Confucius (551-479 B.C.) differentiated between three knowledge sources: the mind, experiences through nature and experience through society. The 'cultivated mind' or *shili* is the source of knowledge where knowledge is gained through justification, logic and deduction (Mingers, 2008; Zhu, 2008). The *Lebenswelt* or life world where experience happens is a source of knowledge (Husserl, 1970). The investigation of nature, or *wuli* (Confucius 551-479 B.C. in Zhu, 2008), through individual senses of seeing, feeling, and touching can form knowledge. According to Russell (1911) natural phenomena, or *de re*, are the prime source for knowledge. "We should heed what our senses tell us" (Holmer, 1990, p. 202). And Nonaka and Takeuchi (1995) promote that "the most powerful learning comes from direct experience ... learning with the body not only the mind" (p. 10, see also Mingers, 2008, p. 71). Accordingly individuals are the vehicle to knowledge; sourcing knowledge through their senses.

Kant (1965) agrees that knowledge begins with experience, yet finds that it does not necessarily have to arise out of experience. Listening to a story can inform about a phenomenon. How the phenomenon actually *is* will however stay unknown to the listener. This social form of knowledge Confucius (551-479 B.C.) named *renli* (in Zhu, 2008). The social world or *verum* (Vico in Verene, 1997) is the basis of *de dicto*: knowledge that appears in form of books and other writing (Dretske, 1981). *De Dicto* is knowledge that has been separated from the individual and has been made explicit (Polanyi, 1998). As to Habermas (1971), it is this explicit knowledge, which has been freed from human interest and attitude that is the *only* true form of knowledge (Chia, 2003). Polanyi (1998, p. 64) advises, however, that such a promise of science is limited since "knowledge in science is not made but discovered" by individuals.

The argument is that knowledge, stored in books, the Internet and information technological (IT) systems is derived at *only* through individuals knowledge contribution and can only then be valuable knowledge if applied by individuals.

Knowledge for management purpose

Modern management studies have taken the concept of knowledge beyond the philosophical debate and into the market place (e.g. Drucker, 1993; Nonaka and von Krogh, 2009; Sveiby, 1997; Toffler, 1990; Quinn, 1992; Wiig, 1993). Drucker (1993) indicated that the new economy is the 'knowledge society' where knowledge is not one resource amid others (land, capital, labor) but *the* only significant resource. 'Knowledge is power' and essential for a successful business strategy (Toffler, 1990).

While the classical view of knowledge indicates that knowledge is the process or action of knowing an experience or associating with an experience through an individual's participation, the modern view on knowledge is associated with competitiveness and power. Knowledge is then of value when it can be measured in form of an asset (Glazer, 1998). Yet

“knowledge is really the ability to understand and explain why things are as they are” (Ackerman, 1965, p. 71); it is the principles and reasons acquired through individuals’ participations and not the thing itself. All forms of knowledge have a personal and tacit element that needs to be considered (Akehurst *et al.*, 2011; Polanyi, 1998). Since knowledge is derived at through individuals contribution to the workplace (Dzinkowski, 2000) and since individuals are an organisation’s main generator of wealth (Dean and Kretschmer, 2003; Earl, 2001), there is the argument to integrate individual knowledge carriers into the discourse on managing their knowledge.

The foregoing discussion on the foundations on knowledge, while not exhaustive, provides some indication that the individual is meant to be central to the discussion on knowledge. It is the individual’s participation, according to classical views on knowledge that is needed to generate and share knowledge. How have modern economically driven perceptions on knowledge influenced the KM discourse will be reflected upon later, first, the discussion is on the foundational principles of management.

Foundations of management

Management is to control, guide, coordinate, and communicate “collective patterns of interconnected actions, activities, and modes of knowing ... governed by a purpose, certain rules, formal and informal routines” (Clegg *et al.*, 2009, p. 4; Foyal, 1967). A short overview of seminal and more recent notions of management is provided to show its impact on KM, and the appropriation or participation of the individual thereafter.

Seminal notion of management

The seminal notion of management was introduced by Taylor’s (1911) ‘scientific management’. To increase effectiveness and productivity, Taylor set out to “formalise workers’ experiences and tacit skills into objective and scientific knowledge” (Nonaka and Takeuchi, 1995, p. 36). Planning was taken away from the workers and given to the managers. The appropriation of individuals’ work was meant to lead to better performance, save time and cost (Taylor, 1911).

The division of labour and appropriation of workers led to the oblivion of workers’ needs, perceptions, and judgments. Such an approach to management can hamper an organisation’s ability to manage knowledge as Adam Smith (1776) warned “that no matter how effective the division of labour might appear to be as a plan, when individuals ceaselessly perform mundane and repetitious tasks, it will in all probability bore them, make them irritable, and generally dissatisfied” (cited in Clegg *et al.*, 2009, p. 28).

In contrast to the scientific school, Mayo (1933) and his colleagues published a study conducted at the Western Electric Hawthorn plant to counter-argue the scientific revolutionists. They found that social factors such as morale, a “sense of belonging to a work group, and interpersonal skills” had positive effects on individuals’ performance levels (Nonaka and Takeuchi, 1995, p. 36). Managers were as a result asked to develop ‘social human skills’ to facilitate interpersonal communication. The work of Mayo and his colleagues greatly shifted the way management practices were perceived; organisations were to move from the scientific machine towards a social and cultural system where the individuals’ needs were to be recognised (Weick, 1979).

Contemporary theorisation of management

In the 1990s, the demand for a ‘new’ approach to management led to discussions on the resource- and knowledge-based theory of the firm (Senge, 1990). Awareness towards

knowledge as a resource drew a distinction between tangible resources and services (Penrose, 1959). The strategic implications of the knowledge-based view emphasised that ‘knowledge-based intangibles’ were to be used effectively (Barney, 1991; Grant, 1996; Quinn, 1992). In 1993, the *Newsweek* stated that “the future belongs to the people that use their heads instead of their hands” (cited in Nonaka and Takeuchi, 1995, p. 7). The focus on knowledge as a competitive strategy also had potential implications for the way management thought of overseeing individuals for organisational success. To what extent has the development of modern management affected the foundations of KM and the appropriation or participation of the individual will be discussed at a later stage. For now, the attention turns to the individual and individual forms of knowledge.

The individual and individual forms of knowledge

In this section, the concept of the individual in relation to the employment context is discussed. Further, three forms of individual knowledge are looked at to highlight the need for individuals’ participation in KM. The three forms of knowledge discussed serve as examples and do not represent all forms of knowledge that root in individuals.

The individual

Individuals engaged in employment and so potentially in discourses around KM can assume various roles, e.g. researcher, employee, employer, customer, manager, team leader, CEO, business partner, or consultant. Many of such roles may be overlapping or/and interdependent. Individuals engage in different roles in and around organisations and create the social reality of the organisation: particularly in the shape of the manager and the employee (Holmers, 1990). Our focus is on individual employees in the organisational context.

Every individual sees, hears, feels, and interprets things in a unique way that will inform sources and interpretations of knowledge. According to Chomsky (2002) “human beings have a genetically determined ‘initial state’, competence, or endowment, which is individual, intentional, and internal”; he called this the *I-language* that “provides the fundamental basis for learning” (in Felin and Hesterly, 2007, p. 202). The way we look at our own existence (Heidegger, 1927 and his concept of *Darsein* or ‘being in the world’) affects our approach to knowledge. Buber (1923), investigating the concept of existence, explains how an individual’s perception in relation to others changes; he called this the *Ich und Du* (I and Thou) and *Ich und Es* (I and It) principle. These principles state that each individual perceives and remembers a person according to their inner perspective, independent of the ‘real’ person. In addition, there is an issue of how an individual’s identity changes based on the social world and the roles he or she opts to play (Rousseau 1712-1778 in Bertram, 2004). Individuals’ knowledge and identity are flexible and can change according to their ability, willingness and interest to engage (Bertram, 2004). Felin and Hesterly (2007, p. 214) state that “there is a core self, which may to a large degree determine learning and knowledge outcomes”. The point to make is that the degree of knowledge an individual has is personal as is their ability and willingness to acquire, let alone share knowledge. The management intending to manage individuals’ knowledge needs to be aware of these factors and do well in understanding individuals’ needs.

Individuals are unique: identical clues will be interpreted diversely leading to varying outcomes (Clegg *et al.*, 2009; Murray *et al.*, 2009). This is, as Weick (2001) suggests, based on individual *sensemaking*: the way we make sense of the world. There is a relationship between the signifier (nom) and the signified (sens) (De Saussure, 1916; Ullmann, 1951). Polanyi (1998, p. 87) speaks of the “co-extensive with the text of which it carries the

meaning”. Individuals will concentrate on the meaning of the word, not the word itself, and past experiences of the word will inform its meaning, Polanyi (1998) calls this the *domain of sophistication*. It is important to recognise that individuals engage in knowledge processes in unique ways and that they interpret the world as to their own understanding. The appropriation of individuals meant to process knowledge in KM practices can therefore lead to problems where individuals are meant to participate in practices that carry little to no meaning for them.

Individual forms of knowledge

Informed by Polanyi's (1998) tacit knowledge, three forms of knowledge are assessed to illustrate the need for the participation of individuals in the KM discourse. Examining practical, situational and emotional knowledge will help evaluate if the appropriation of the individual is a suitable approach to KM. The authors are aware that knowledge takes forms that go beyond the three examples discussed here, they were chosen as the focus is on advancing understanding on the need for individuals' participation in the discourse on KM.

Practical knowledge: Practical knowledge is attained through *doing* something. It is a skill that is in itself not known (Polanyi, 1998). The *doing* is concrete and context specific. Practical knowledge is highly tacit and embodied; it is exercised through our body making use of unconscious “clues and tools that are not themselves observed” (Polanyi, 1998, p. vii). Practice is lived, not thought. While some forms of practical knowledge can be explained, others are in-dwelled and can never be completely elucidated (Bourdieu, 1998; Chia, 2003). Polanyi (1998, p. 87) calls this the *ineffable domain*: here the level of tacit knowledge predominates in such a way that it is virtually impossible to ‘formalise’ or describe it. Practical knowledge or ‘skilful doing’ is ‘skilful knowing’ (Polanyi, 1998). To obtain practical knowledge, the individual has to be present, able and willing to learn (Nonaka and von Krogh, 2009). To share practical knowledge, individuals have to participate and learn from one another how to do specific tasks (Argote and Miron-Spektor, 2011). Appointing and enforcing such knowledge sharing is understood to be hindering for KM.

Situational knowledge: Knowledge develops in situations that are themselves developing (Blackler, 1995). This notion of emerging knowledge is closely related to Heidegger's (1927) concept of *Dasein* or ‘being in the world’. To obtain situational knowledge, an individual has to be physically present in the contextual environment. Experiencing the ‘now’ if memorised and reflected upon, ‘after’ is not the same. The re-creation of the knowledge, no matter how many facts and related facts one has available, will not be possible (Garfinkel, 1976 in Hassell, 2007). Taking situational knowledge outside its context will convert it to information. That an individual is present is not self-evident, the individual has to be willing and able to participate in the situational space to create and/ or share knowledge. Nonaka and Konno (1998) identified such a space as *ba*: a space where knowledge share and creation can occur (this concept is discussed in more detail later). Organisations are recommended to create such a space for situational knowledge to emerge as opposed to enforcing individuals to participate in situational dependent knowledge creation.

Emotional knowledge: The third example of individual knowledge is that gained through emotional intelligence. Damasio (2000) analysed the role of emotions in reasoning and found that the emotional centre of the brain is crucial in the decision making process. An individual's ‘gut feeling’ can, for example, influence the understanding of situations and their willingness to engage (Andre *et al.*, 2002). Emotions can manifest reasons to understand complex issues, which can turn into knowledge (Cairns, 2000; Fiol and Lyles, 1985). The emotional intelligence of an individual will influence not only their understanding and use of knowledge, but their understanding and knowledge about KM processes. The approach taken

to manage knowledge will influence individuals' emotional knowledge on the practices: whether the appropriation of KM practices is an appropriate choice is therefore debatable.

The three examples of intangible knowledge sources highlight the importance of Polanyi's (1998) 'personal' element in knowledge. Knowledge is what individuals embrace through their ideas, capabilities, values, and emotions (Nonaka and Takeuchi, 1995; Nonaka and von Krogh, 2009). There is not one right way for an individual to engage in knowledge processes; rather there are several distinctive ways dependent on the individual's core self and willingness to participate. How individuals participate, feel and are aware of circumstances will determine the quality and amount of knowledge gained, shared and created (Clegg *et al.*, 2009; Murray and Chapman, 2003). Appropriating individuals so they obtain and share knowledge to enhance organisational effectiveness is seen to be restricting. Identifying how individuals would like to participate in knowledge processes can on the other hand be supportive for knowledge to be managed for both individual and organisational gain. Next the dominating trends of KM are discussed to see how the notion of participation of the individual in the discourse around KM is integrated into the discipline.

Knowledge management

An overview of the origins of KM and how it developed into a discipline is offered to investigate whether the KM discipline is embracing the complexity of tacit forms of knowledge, embedded in the individual. Afterwards, the integration of the individual in the KM discourse is mapped out and the tendency towards an appropriation or participation of the individual identified.

Evolution of the KM discipline

Wiig (1997) treats the formation of KM as an evolutionary step in the development of societies and organisations. Mass literacy and the push for education from the 1750s till 1950s (Vincent, 2000), the industrial revolution, and the push for organisational learning (Argyris, 1993) stimulated the KM discourse. The 1990s brought the perception that 'knowledge work' and 'knowledge workers' will lead to success, triggering the immense wave of development in discourses and technologies of KM (e.g. Bell, 1978; Drucker, 1993; Toffler, 1990; Quinn, 1992).

Through the contributions of key scholars such as Nonaka (1991), Nonaka and Takeuchi (1995), Sveiby (1986, 1990, 1997) and Wiig (1993) the movement for managing knowledge established into a discipline. Nonaka and Takeuchi (1995, p. 71) suggest possible strategies to manage knowledge. The authors identified the organisational knowledge creation theory - the knowledge spiral – as a strategy for knowledge creation through socialisation, externalisation, combination and internalisation. In addition, the authors put forward that a five-phase module can lead to the transformation of tacit knowledge into explicit knowledge, if a middle-up-down management is put in place (Nonaka and Takeuchi, 1995, p. 127). Nonaka and Takeuchi (1995) is one example of scholarship that promoted the notion that knowledge can be managed, inviting academics and practitioners to pay serious attention to the KM discipline.

Scholars in organisational science such as economics, sociology, philosophy and psychology, scholars in intellectual capital, artificial intelligence, engineering and computing, and scholars in organisation studies including strategic management and human resource management contributed to the development of the KM discipline (Baskerville and Dulipovici, 2006; Prusak, 2001; Swan *et al.*, 1999). Kakabadse *et al.* (2003) identified various schools of thought that developed out of such variant interest groups. Such scholarship helps in understanding what knowledge workers are and what motivates them, or

how operations to integrate knowledge (e.g. via codification techniques and IT systems) could be optimised.

Interpretations and applications of KM

O'Dell and Jackson (1998, p. 4) offer a well known definition of KM: "conscious strategy of getting the right knowledge to the right people at the right time" so individuals "share and put information into action in ways that strive to improve organisational performance". The purpose of KM, is "to make the enterprise act as intelligently as possible" (Wiig, 1997, p. 1), through the appropriation of "business processes, information technologies, knowledge repositories and individual behaviour" (Eschenfelder *et al.*, 1998 in Kakabadse *et al.*, 2003, p. 79). The foremost interpretations for KM suggest that KM is associated to IT, the firm level, and organisational strategy. A review of these dominant paradigms will show the inclination to the appropriation of the individual in KM.

KM and IT: Several scholars in the IT field have contributed to the development of KM (e.g. Alavi and Leidner, 2001; Lindvall *et al.*, 2003). Scholars have shown how IT tools may be used to codify, generate, store, and transfer knowledge as a value-adding strategy for KM (Hedlund, 1994; Kakabadse *et al.*, 2003). They have shown how IT in KM can enhance communication between knowledge seekers and 'sources of knowledge'. In addition, the storing of explicit organisational knowledge and the identification and connection of key knowledge carriers can lead to an effective KM strategy (Alavi and Leidner, 2001). There is also an argument that knowledge is embedded in the systems and tools utilised in the organisational space (Argote and Miron-Spektor, 2011; Birkinshaw *et al.*, 2002).

However, there are some questions about the practical implications of IT and how the tacit and intangible aspects of knowledge can be addressed (e.g. Metaxiotis *et al.*, 2005; von Krogh *et al.*, 2000). Prusak (2001, p. 1002) finds that scholars in IT 're-bash' information and data management methods as KM tools: a misinterpretation of KM. In fact, the "obsession with tools and techniques" will hijack KM (Swan *et al.*, 1999, p. 25). Problems that arise when associating KM with IT are related to location, time and the alteration of original meaning. Locating knowledge can be difficult as it can be scattered across organisations (Zack, 1999). Codifying knowledge can result in a loss of meaning as knowledge is taken outside of its context (Earl, 2001). Also, knowledge is constantly evolving where 'true' knowledge of the past is not necessarily true in the present or future, making it difficult to store accurate knowledge (Brown and Duguid, 1998; Orr, 1990).

Fahey and Prusak (1998, p. 273) argue that "although IT is a wonderful facilitator ... it can never substitute for the rich interactivity, communication, and learning that is inherent in dialogue." Associating knowledge with an entity separated from the individual that can be managed through technology, is seen to be misleading. Knowledge, even if coded in IT systems, originates through individuals and it is only through individuals' use of IT systems that the system can add value to KM. The appropriation of the individual to express and share knowledge is a costly and risky route for organisations to take, as individuals' participation in IT practices cannot be guaranteed.

KM and the firm: The notion of knowledge being managed on the firm level is a common interpretation (e.g. Felin and Hesterly, 2007; Kogut and Zander, 1996). The view is that "knowledge is intrinsically the common property of a group or else nothing at all" (Kuhn, 1970, p. 210). According to this view, knowledge cannot be reduced to the individual as it has limited value if not clustered in some way (Argote and Miron-Spektor, 2011; Kogut and Zander, 1996).

Holmers (1990, p. 218) criticises the collective view on KM as all "public knowledge must have a private base". Nonaka and Peltokorpi (2006) did, however, find that very few scholars considered the individual in the debates around knowledge creation, integration, and

transfer. Interpreting knowledge as a common good, valueless if not communally shared, leads to assume that individuals are to be managed so organisational goals can be met, neglecting the opinions of the individuals who carry the knowledge. The firm, ultimately, is the vessel within which individuals meet to participate in knowledge processes. That knowledge is owned by the community, not the individual, moves the focus of knowledge ownership from the individual to the organisation. This de-privatisation of individuals' knowledge can lead to de-motivation and reluctance to process knowledge (Michailova and Husted, 2003).

KM and strategy: The strategic interpretation of KM is that knowledge is a good that is to be managed and sold to gain competitive advantage. According to Hansen *et al.* (1999), selling knowledge is exactly what the 'deliberate KM school' has in mind. Chae and Bloodgood (2006) find that the idea of selling knowledge exists since the late 1980's and 1990's where consulting services, pharmaceuticals, and research and development functions 'sold' knowledge as a service. To facilitate competitiveness, Wiig (1997) identified four KM managerial strategies that organisations can implement; these are: "top-down monitoring and facilitation of knowledge-related activities; creation and maintenance of knowledge infrastructure; renewing, organising, and transferring knowledge assets; and leveraging (using) knowledge assets to realise their value" (p. 2).

Schultze and Stabell (2004, p. 557) suggest that knowledge is no "object that can be separated from the knower." Clearly, individuals are managed in organisations since the beginning of the industrial revolution, yet can management control, guide and allocate individuals to share and create knowledge? According to Alvesson and Kärreman (2001, p. 1113) management strategies are more likely to "operate in a way that eliminates and substitutes knowledge, rather than maintaining and creating it." That organisations seek to appropriate and sell the knowledge individuals bring to the jobs, by the appropriation of individuals' knowledge, is understood to have significant ethical concerns (Rechberg and Syed, 2013).

The three dominating views of KM in relation to IT, the firm and strategy may be seen as restricting the true potential of the individual in KM. Of course, knowledge is not always tangible, nor can it be limited to information management. Often, knowledge is difficult to be located or appropriated and its development may rather suffer through the attempt to manage it. Apparently, organisational approaches to manage knowledge are not much different from the way management thinks about engaging individuals. That there is a need for the participation of the individual for a successful KM strategy is discussed next, citing those scholars that are conscious about the matter.

Knowledge management and the individual

By virtue of its very construction, KM is meant to start with the individual (Blackler, 1995). Seen from this angle, organisations are to act as knowledge facilitators: a place where knowledge can be created and shared. Wiig (1997, p. 2) found that "there are emerging realisations that to achieve the level of effective behaviour required for competitive excellence, the whole person must be considered". In this respect, the focus not only needs to be on generating individuals' knowledge, but also on drawing on individuals' insight to develop the best possible KM practices. In this section, the benefits of the participation of individuals in KM are explained and how they can be realised.

Organisations would not exist if it was not for individuals' "ability to integrate multiple knowledge streams" (Conner and Prahalad, 1996 in Sabherwal and Becerra-Fernandez, 2003, p. 229). Individuals are meant to actively participate in KM as learning begins with the individual and "all learning takes place inside human heads" (Simon, 1991, p. 125). Individuals have the ability to create meaning of things, reflect, and interpret situations.

Individuals' experience, value, sense, and judgment can be added to a discussion (Baxter and Montgomery, 1996); it is this realisation, recreation and reflection on nature that can plan and make effective strategy.

Knowledge creation is based on personal interaction. Nonaka and Takeuchi (1995, p. 72) developed the spiral process to enhance knowledge creation; it begins on the level of the individual and moves towards the organisational level. According to Huber (1991, p. 89) "an organisation learns if any of its units acquires knowledge". An organisation can accordingly only engage in learning if its employees participate in searching, selecting, and making use of knowledge (Simon, 1991). Organisational knowledge is dependent on the social relationships of individuals (Kogut and Zander, 1996), and Argote and Miron-Spektor (2011) state that knowledge is transferred by moving individuals from one unit to another within the organisation. How individuals are asked to participate in the organisational context will therefore matter (Elkjaer, 2003). Nonaka and Konno (1998) find that the space provided by an organisation for individuals to create and share knowledge is important. The authors call this space *ba*, which exists only on bases of individuals' participation: *ba* can be physical, virtual and /or mental (Nonaka and Konno 1998, p. 41; Sveiby, 2007).

Gergen (1994) finds that sharing the same contextual knowledge, such as beliefs and practices, in a *Gesellschaft* or social society is favourable for KM. Organisations are meant to understand and integrate individuals' cultures to build trust (Murray *et al.*, 2009; Newell and Swan, 2000). According to Politis (2003, p. 64), "a 'trustworthy' intention among co-workers is the chief ingredient for knowledge acquisition and knowledge sharing". Good organisational intentions, increasing autonomy, a creative chaos, variety and limited redundancy can set the grounds for a 'knowledge-creating company' (Nonaka and Takeuchi, 1995, p. 76-82). The right organised setting can facilitate "individuals' active participation and interaction with tasks, technologies, resources, and people within a particular organisational context", which can then lead to a successful KM strategy (Bartel and Garud, 2003, p. 326). Leadership can help to facilitate the space "for body and mind to come together in an originating *ba*" (Nonaka and Konno 1998, p. 54; Sveiby, 2007; Useem 1998). In particular, communities of practice (CoP) can promote knowledge exchange and creation (Cox, 2005), as a sense of community will not only enhance the building of trust, but will also increase communication and the possibility to meet (Hansen, 2002; Kakabadse *et al.*, 2003; Tagliaventi and Mattarelli, 2006).

Realising that individuals are the key knowledge carriers and reviewing the notion of knowledge being an organisational holding, can enhance an atmosphere in which an effective strategy can be set. The emphasis is to be on creating a space for the 'knowledge crew' in which individuals will create and share knowledge (Nonaka and Takeuchi, 1995, p. 19). Therefore, for knowledge to be processed and for KM to be an effective strategy, the individual is meant to not only be considered as a part of the process, but as an active participant in the strategy developed for KM.

Appropriation or participation of the individual in knowledge management

A reflection on the dominant trends in KM shows there is a tendency towards an appropriation of the individual in the KM debate. Our investigation of the foundations of knowledge did however highlight the need for individuals' participation in the KM discourse. Appropriating individuals by trying to regulate, assign and manage knowledge to comply with managerial rules for organisational success was seen to be rather restricting. Instead, allowing individuals to participate in the debate around KM by identifying what they need to feel at ease to share and create knowledge, may be seen as a useful way to organise KM as an activity that can enhance individual and organisational effectiveness. One can argue that KM

follows the management principle where anything that is occurring within the organisational sphere is to be managed; knowledge, however, is different. As investigated above, knowledge is rooted in individuals and it is only through their participation in KM that knowledge can bring an organisation value. Individuals' participation and their consent on how to manage knowledge, is needed for KM to be effective.

KM inherits a multidimensionality that if neglected, can cause a misinterpretation of the discipline. Inspired by Chae and Bloodgood (2006) and incorporating Van de Ven and Poole's (1989) advice on illustrating paradox, the paradox between organisational and individual knowledge, and the paradox between management and knowledge, is elaborated upon. These paradoxes are considered as constitutional to KM, provoking the dilemma between the appropriation versus participation of the individual in the KM debate.

The organisational and individual knowledge paradox

By investigating the foundations of knowledge, it was established that knowledge in any form begins with tacit knowledge, which is resident to the individual. Organisational knowledge is not a simple multiplication of individual knowledge, yet dependent on individuals to be created (Spender, 1994). Organisational knowledge is the "interactions between technologies, techniques, and people" (Bhatt, 2001, p. 70). **For individuals to gain or share knowledge, they need community** (Argote and Miron-Spektor, 2011; Lave and Wenger, 1991). There is a mutual dependence or even amalgamation between organisational and individual knowledge, where "the individual and collective do not exist as a real, separate entity" (Felin and Hesterly, 2007, p. 200; Elkjaer 2003). In Japanese customs, this belief is common where the understanding is that nothing exists in isolation. Instead, everything is part of the whole 'collective self' (Nonaka and Takeuchi, 1995). Nonetheless for the collective knowledge to be created, individuals need to willingly make their contributions.

A 'together' rather than 'either or' thinking is suitable for the debate on the paradox between individual and organisational knowledge. Organisations are a collection of individuals who themselves choose to share knowledge (Felin and Hesterly, 2007). Since the locus of knowledge lies in the individual, organisations are dependent on the individuals employed and learn through individuals' positive as well as negative experiences (Grant, 1996; Sabherwal and Becerra-Fernandez, 2003). Individuals are not 'assigned to a setting', but rather choose the setting they work for (Schneider, 1987). Appropriating how individuals contribute to KM practices is seen to be counterproductive. Organisations are instead invoked to attract and further empower individuals to work together, "harmoniously as a collective self" (Nonaka and Takeuchi, 1995, p. 31), to create KM practices that are beneficial for the individuals and for the organisation they are working for.

The management and knowledge paradox

Jasimuddin *et al.* (2005, p.107) address that explicit and tacit knowledge are inseparable, yet that there exists a paradox that the former can be managed whereby the latter will be lost. The problem is that rigged 'command and control' organisations are likely to cause a disruption to the opportunity and validity of knowledge sharing (Bhatt, 2001; Sveiby, 2007). The question that arises is: which elements of knowledge can be managed (Metaxiotis *et al.*, 2005)?

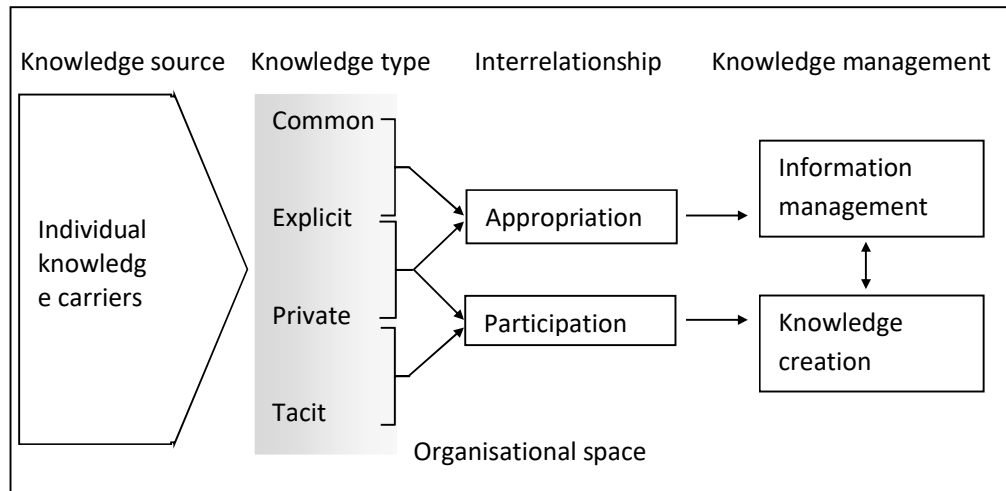
Documents can be controlled, as can information, knowledge itself cannot. KM is not equal to information management, opposing individuals' integration and participation (Hassell, 2007). **Knowledge is continuously created and re-defined, it is ambiguous and difficult to capture, control, organise and coordinate** (Alvesson, 2001). As management can turn valuable knowledge into information or nothing at all, a new approach is needed (Alvesson and Kärreman, 2001; McDermott, 1999): An approach to managing knowledge that is intoned by individual knowledge carriers.

To understand the paradox inherent to KM, and the need for individuals' participation in the discourse on KM, the interrelations and complexity between different knowledge types needs to be reflected upon. Tywoniak (2007) differentiates between tacit and explicit, and common and private types of knowledge and shows an interrelationship that needs to be understood and integrated into KM practices. In that respect, technology can be a useful tool to shepherd explicit knowledge such as data and information, which is however not possible for tacit knowledge types that are private and inherent to individuals. Fundamentally, all knowledge is perceived and processed by individuals and can only be managed when made explicit. If management practices incorporate Follett's (1868-1933) definition of management as "the art of getting things done through people" (in Barrett 2003, p. 51), all four types of knowledge may be integrated into a KM approach that successfully manages knowledge through individuals' participation.

The appropriation and participation dilemma

Appointing individuals to share knowledge will be difficult. Providing a space for individuals to participate in **knowledge creation activities can**, on the other hand, be beneficial. The influence of management typologies has created the impression that KM is the storing of information, communication via technology and a strategy to enhance corporate asset. Management based on a command and control mechanism adopts the approach for the appropriation of the individual. Examining the meaning of knowledge and different individual forms of knowledge did however show that even common organisational knowledge has a private base. Restricting to the managerial streams of thought and being oblivious to the private and tacit element of knowledge, may lead to the impression that the appropriation of the individual is a suitable approach to promote the management of knowledge. To enhance knowledge creation and to enhance KM effectiveness, there is the need to consult the individual. Murray and Chapman (2003), for example, find that high involvement in decision making leads to operational improvements. The emphasis is to be on individuals' needs and what they require to feel trust and comfort to share knowledge, as it is only through the participation of individuals that knowledge can be processes and created.

Figure 1 is an illustration of knowledge as existent within an organisational space. It shows that knowledge emerges if individuals engage in the organisation. Knowledge stored in databases will then become valuable if processed by individuals. Individuals are fundamentally the source of any of the four knowledge types identified by Tywoniak (2007). The interrelationship between the four types of knowledge shows that not all forms of knowledge lead to explicit and common knowledge that can be managed through the appropriation of the individual. **As illustrated, private and tacit forms of knowledge can lead to knowledge creation if individuals are participating within the organisational space.** While the appropriation of individuals in KM may limit individuals' willingness to engage, only knowledge that has been made explicit and is common in nature can be managed. Information can be regulated and controlled. To incorporate private and tacit types of knowledge and to enhance knowledge creation thereafter, the participation of the individual is needed (see Figure 1). Private explicit knowledge may be controlled, for example, via management practices that enforce information sharing. Mentoring practices and an organisational culture where interpersonal correspondence is monitored can also enhance private explicit knowledge sharing. To enhance corporate effectiveness through highly valuable tacit knowledge, organisations will, however, have to invite individuals to participate in practices that **can enhance knowledge share to stimulate knowledge creation.** To create the right environment for individuals to participate in KM practices, individuals are meant to participate in the very designing and implementing of KM activities.

Figure 1. Appropriation v. participation of individual in knowledge management

The appropriation of the individual in KM will lead to information management while an approach towards the participation of the individual can inspire individuals to engage in knowledge sharing, even if it is private and tacit in nature. Individuals are social beings and knowledge does not form without community. Organisations are therefore encouraged to provide a space so individuals can meet and share experiences, ideas and ideals on establishing an effectual approach to KM.

Implications and limitations

Implications for practice

There are several practical implications of the current study that could be incorporated in organisations to promote knowledge processing. Since appropriating individuals, to obtain and manage knowledge for organisational gains, is seen to be restricting, organisations are encouraged to integrate individuals into designing and implementing KM practices. The integration can begin by asking individuals about their views on knowledge and its management. Allowing individuals to contribute to the decisions made around KM may contribute to their feelings of empowerment and recognition. Identifying what individuals need to process knowledge may consequently make them feel at ease to share and create knowledge.

Realising that individuals are the key knowledge carriers and revisiting the notion of knowledge in organisational settings may enhance an atmosphere in which an effective approach to KM could be devised. This may in turn help in creating an organisational culture that provides for a sense of community, sense of belonging and trust, which can promote knowledge flow through social networking and communication (Alvesson and Kärreman 2001; Hassell, 2007; Hansen, 2002'; Newell and Swan, 2000; Politis, 2003; Wiig, 1997). Creating such an organisational *Gesellschaft* or social society favourable for KM, where beliefs and practices and common contextual knowledge are shared, may attract, retain and motivate individuals to engage in knowledge creation.

To inspire knowledge creation, organisational rearrangements might be needed not only in terms of culture, but also in terms of management, structure and practices (Sveiby, 2007). Organisational knowledge is dependent on the social relationships of individuals and individuals can create common organisational competitive knowledge (Hansen, 2002; Kogut

and Zander, 1996). Organisations are therefore asked to create a space for situational and practical knowledge to emerge. Earl's (2001) notion of an organisational street may be useful in understanding human interaction at the workplace, and so can Nonaka and Konno's (1998) analogy to organisational 'systems' and 'ecologies' in which knowledge can emerge freely as individuals have the chance to meet purposely as well as arbitrarily.

Management, beyond acting as a facilitating practice, can organise knowledge by managing knowledge overloads (Schultz and Leidner, 2002). Yet, management has to realise "that knowledge needs to be nurtured, supported, enhanced, and cared for" (Nonaka and Konno, 1998, p. 53). Management thus has to become flexible enough to conform to the complexity of knowledge, adopting an innovative view on management to facilitate knowledge processes, by giving voice to the individuals meant to participate in the practices.

Implications for research

Scholars may wish to investigate whether there is a management strategy that allows for knowledge creation. Scholars can investigate how organisations can create environments where knowledgeable individuals *like* to meet and are willing to create, share and implement knowledge for productive gains. It would be interesting to determine how an organisation that emphasises on individuals and knowledge creation, and less on management and technology, would be structured. How can leadership play a role in individual-owned knowledge processes and how will the empowerment of individuals affect their engagement in the processes? Furthermore, it would be interesting to investigate how the complexity of individuals and the increasing trends towards flexibility at work might influence KM. Lastly, a study on the ethical implications of KM and the question of knowledge ownership may bring valuable insights for the KM discipline to understand what causes knowledge loss.

Limitations

Since this study pertained to the appropriation or participation of the individual in KM, its focus is limited to the individual. The focus was on the literature that paid attention to the role of the individual in regards to KM. It is, however, recognised that there may be other forms of explicit knowledge that may need management. The focus was on the KM literature and the participation of individuals in the discourse on KM, to identify if there is a need to redirect the line of inquiry. Therefore the vast discussion on employee empowerment in organisations has been excluded.

Conclusion

In this theoretical paper, the appropriation versus participation of the individual in the KM discourse was investigated. Based on the philosophical foundations of knowledge, the individual is considered as a legitimate participant in KM. The foundations of management, however, show that the individual employees and their knowledge remain appropriated in the workplace. The complexity of the individual and three individual forms of knowledge were explained to highlight that the participation of individuals is important, since knowledge resides in the individual. A reflection on the dominant trends in KM showed that a managerial tendency to appropriation of the individual has decidedly influenced the KM discipline.

KM inhabits paradox that contributes to the confusion around the discipline. In this study, it became clear that an appropriation of the individual is unsuitable not only for individuals, but also for organisations. Instead, the individual is meant to be an active participant in the KM discourse. It can be concluded that a successful KM strategy cannot exist without individuals' participation. In fact, disregarding individuals' role in KM may not only hinder knowledge creation, but may also lead to a decline of organisational knowledge

due to individuals' non-participation. Organisations may, therefore, need to focus on integrating individuals in KM, taking into account their need to feel at ease to willingly share and create knowledge.

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