INDIVIDUAL AND ORGANISATIONAL UNLEARNING: DIRECTIONS FOR FUTURE RESEARCH

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ABSTRACT

Within the literature, unlearning as distinct from learning, at both the individual and organisational level, is receiving increased attention. This paper explores unlearning in terms of its relationship to the existing literature on types of knowledge, how unlearning is suggested to occur within different levels of knowledge, and finally the link to individual and organisational learning. This analysis and synthesis of the literature in the areas of adult learning, organisational learning and management of knowledge is utilised to develop a model of unlearning. Given the lack of empirical research in this area, this model provides a framework to be used as the basis of future research of unlearning.

Keywords: unlearning, learning, knowledge, organisational learning, organisational culture, organisational memory.

INTRODUCTION

Although much has been written about the notion of unlearning, there is a genuine lack of empirical studies in the area of unlearning. Many of the more recent articles written on the topic of unlearning have been written by practitioners and consultants (Duffy 2003; Kerfoot 1999; Magrath 1997; Mariotti 1999; Sherwood 2000). Whilst these are based upon informed opinions and experience within organisations, more robust research in this area would assist in either support or disconfirming many of the assumptions, recommendations and theories offered relating to unlearning (Easterby-Smith & Araujo 1999).

Several authors have pointed to this lack of research. Easterby-Smith (1997, p. 1108) proposes that '..further work should be conducted into how individual and shared cognitive maps can change', whilst Delahaye (2000) notes:

> *'it is interesting to reflect that the concept of unlearning only recently has become a phenomenon worthy of consideration in adult and organisational learning. Centuries ago, an individual's knowledge would last a lifetime, indeed knowledge would be passed down generations and still be highly useful. This has changed during this century until, as we pass into the new millennium, knowledge becomes rapidly obsolete – hence the need to consider the unlearning process. Surprisingly, there has been very little written on the topic.'* (Delahaye 2000, p. 49)

Along the same lines, LePine, Colquitt and Erez (2000) suggest that to address the rapidly changing organisational environment, rather than providing training that can often be quickly outdated, organisations may choose to develop their employees in terms of their ability to adapt and handle change (or unlearn). They too caution that 'although this approach has great

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potential, research in this area is fairly new and there are many issues that need to be resolved before it can be used effectively in applied settings' (LePine et al. 2000, p. 64).

Based upon a review of the literature in the area, it is clear that although unlearning is being more regularly discussed, there are few theories confirmed by empirical evidence to identify how individuals unlearn and what factors may influence this unlearning. It is also clear that investigating this area within a broader organisational context and linking it to previously research, is critical. Tsang (1997) is critical of organisational learning and the learning organisation research agendas, commenting '…the studies are noncumulative in the sense that current studies seldom build on past research results. Each tries to dig a fresh hole in the field' (Tsang 1997, p. 82). Sun and Scott (2003) also believe that there has been a 'lack of attention paid to certain areas of the learning process (e.g. the link between individual and organizational learning)…' (Sun & Scott 2003, p: 207). The model offered in this article takes a first step by providing a framework tying together concepts from the adult learning, organisational learning and knowledge management literature.

This paper commences by providing an overview and amalgamation of the existing literature in the area of unlearning and outlines a model of individual and organisational unlearning (Windeknecht & Delahaye 2004). The model suggests that there exist key factors identified in the literature as impacting upon unlearning, and provides a basis for future research into unlearning.

DEFINING UNLEARNING

From the literature relating to unlearning, a number of definitions have been proposed. Hedberg (1981) suggests 'knowledge grows, and simultaneously it becomes obsolete as reality changes. Understanding involves both learning new knowledge and discarding obsolete and misleading knowledge' (Hedberg 1981, p 3). This process of discarding Hedberg (1981) refers to as unlearning. Newstrom (1983, p. 36) defines unlearning as '…the process of reducing or eliminating preexisting knowledge or habits that would otherwise represent formidable barriers to new learning'. In a similar vein, Prahalad and Bettis (1986, p. 498) propose unlearning to be '…simply the process by which firms eliminate old logics and behaviours and make room for new ones'. Finally, Starbuck (1996, p. 727) claims 'unlearning is a process that shows people they should no longer rely on their current beliefs and methods'. All of these definitions acknowledge the potential for existing knowledge or behaviours to interfere with learning and, therefore, recognise the importance of unlearning within the process of acquiring new knowledge and behaviours.

It is apparent that in this range of definitions, sometimes reference is being made to unlearning encountered by individuals, and others are referring specifically to organisational unlearning. These definitions are similar in that they generally recognise unlearning as a process rather than a discrete event and, secondly, they also acknowledge the close link between learning or acquiring new knowledge, and unlearning. It may be argued that making a distinction between learning and unlearning is not necessary. However, at least some of the literature in the area of learning specifically, does not recognise the existence of previous knowledge and its potential for impact on the learning process. This lack of recognition of previous learning is referred to by Newstrom (1983) as the 'clean slate fallacy'; assuming that learners are a clean slate or empty vessel waiting to acquire new knowledge without the interference of previous learning. Therefore, whilst it is acknowledged that there is the

potential to see the concept of unlearning as nothing more than a play on words, it is contended that there is a distinct difference between the two processes of unlearning and learning, even though they may occur simultaneously. It is also emphasised that unlearning should not be viewed as an end in itself. The major reason for encouraging or engaging in unlearning is to allow the inclusion of new knowledge or behaviours, and as a means to assisting learning, innovation and change. The definitions offered by previous authors have been analysed, and for the purposes of the proposed research outlined in this paper, unlearning is defined as 'the process by which individuals and organisations acknowledge and release prior learning (including assumptions and mental frameworks) in order to accommodate new information and behaviours'.

CURRENT THEORIES OF UNLEARNING

Hedberg (1981) is recognised by many authors, as one of the seminal works in the area of unlearning. It is suggested by Hedberg (1981) that in predominantly an organisational sense, new knowledge replaces old knowledge as individuals learn more; much like overwriting. It is not considered to be the same as forgetting, where information is lost regardless of its usefulness. Hedberg (1981) sees the two processes as happening simultaneously proposing that knowledge both increases and becomes obsolete, or is discarded, as the situation changes. This discarding activity, often referred to as unlearning, is seen to be as critical as gaining new knowledge, and the lack of ability to engage in unlearning is reported as a 'crucial weakness of many organizations' (Hedberg 1981, p. 3).

However, a number of the researchers in the area of forgetting suggest that knowledge is not destroyed but remains. For example, Bouton (1994; 2000) in studying forgetting, extinction, and lapse and relapse makes the point that extinction of behaviour is not the same as unlearning, as lapse and relapse can occur when the context in which the individual finds themselves, is manipulated. Therefore, it is being proposed that extinction does not in fact remove the learning altogether, it simply reduces the likelihood of the behaviour in certain contexts. Hence, the proposal by Hedberg (1981) that new learning 'overwrites' old learning is not supported by this research.

In support of this alternate view of unlearning, Klein (1989) put forward a parenthetic model of unlearning, suggesting that the old knowledge is not erased, but maintained (in parentheses as it were) for situations where it is believed that the new knowledge does not apply. It is therefore suggested that a decision is made by an individual as to what behaviour is appropriate based upon the context of the situation. In part, there is caution expressed about the widespread use of the notion of unlearning. Klein (1989) believes that individuals learn new ways of choosing a response to a particular situation, rather than unlearning a particular response. The point is made that when it is suggested, in the context of unlearning, that one response replaces another, there may not be any improvement in outcomes. Klein (1989) is suggesting that to improve, develop and grow, it is essential to learn a new method for selecting responses in the first instance, and that simply replacing one discrete action/skill with another is insufficient. In this case, focussing upon the change of frames of reference/mindsets/theories of action is being advocated. Whilst it can be interpreted that Klein (1989) believes a focus on unlearning specifically is not necessary; others have identified that within the process of development, improvement and growth, it is still essential to recognise previous habits, knowledge and/or behaviours that are no longer optimal and relinquish them (Hamel & Prahalad 1994; Nystrom & Starbuck 1984).

In summary, the term unlearning has been used in a number of different contexts. Some have referred to this concept in relation to individuals undergoing a process of relinquishing old ways and embracing new behaviours, ideas or actions (Baxter 2000; Bridges 1991; Duffy 2003). Others have focussed more upon organisations, as a system, relinquishing previous methods and approaches in order to accommodate changing environments and circumstances internal to the organisation (Hamel & Prahalad 1994; Hedberg 1981; Klein 1989). The model of unlearning outlined in this article serves to integrate these two perspectives.

DEVELOPING A MODEL OF UNLEARNING

Based upon the existing literature and research in relation to unlearning, and taking into account the factors impacting unlearning at both an individual and organisational level, a model (shown as Figure 1) has been developed to draw together a range of concepts. The model suggests that, at an individual and at an organisational level, there are a number of factors considered to be parallel, that will impact upon learning and unlearning.
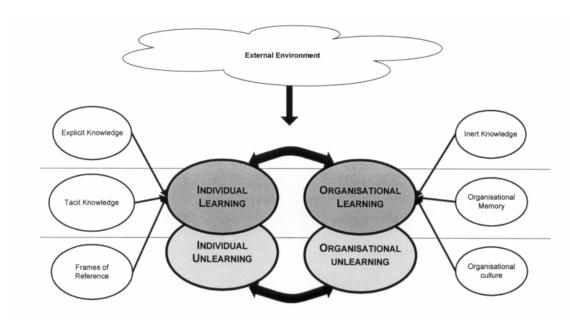
Figure 1: A model of individual and organisational unlearning (Windeknecht & Delahaye 2004)

Explicit knowledge
At the individual level, researchers and writers have identified the difference between explicit and tacit knowledge (Durrance 1998; Newell, Robertson, Scarbrough & Swan 2002; Nonaka & Takeuchi 1995; Roy & Roy 2002). Explicit knowledge is widely accepted as knowledge that is recognised by the individual and is therefore easily expressed or articulated (Durrance 1998; Newell et al. 2002; Nonaka & Takeuchi 1995; Roy & Roy 2002). Explicit knowledge is sometimes referred to as codified knowledge.

Explicit knowledge forms over time as an individual learns more, and is the basis of many decisions made by individuals within organisations. Whilst this knowledge is easily articulated and therefore challenged by others, it still serves to shape an individual's thinking

and learning. The model of adult learning introduced by Knowles (1980) suggests that an individual's experience and prior knowledge should be viewed as valuable to any learning process. However, it may also be the case that this knowledge can serve to inhibit unlearning as proposed by Lyndon (1989) when referring to the psychological phenomena known as proactive inhibition. Proactive inhibition has been shown to protect knowledge already acquired by an individual by disregarding conflicting information. Lyndon (1989) identified that the major issue preventing learning or the transfer of knowledge was the existence of prior knowledge, not an absence of knowledge—again suggesting that relinquishing previous learning is a critical issue.

Inert knowledge

At an organisational level, explicit knowledge is generally found captured in a static form. This knowledge, which is easily articulated and therefore documented, can be found in organisational policies, procedures and processes, as well as in documentation such as performance management systems and position descriptions. The model suggested utilises the term inert knowledge (Delahaye 2005) to indicate the relatively stable nature of such information, and the fact that it can be captured, stored and shared either in hard copy or electronically (Connell, Klein & Powell 2003). Collective explicit knowledge has been recognised to exist in organisations, just as it does in individuals (Starke, Dyck & Mauws 2003). Therefore, just as explicit knowledge may influence learning and unlearning in an individual, it is probable that inert knowledge has an influence on organisational learning and unlearning, and indirectly therefore, on individual learning and unlearning.

Tacit knowledge

Tacit (or implicit) knowledge, relates to information not easily explained or documented, and is often referred to as know-how (Nonaka & Takeuchi 1995). Tacit knowledge has been the focus of many studies at both an individual and organisational level. In particular, of interest to researchers, are the ways in which tacit knowledge is created and shared. Swap, Leonard, Shields and Abram (2001, p. 95) suggest that 'knowledge with rich tacit dimensions, is transferred informally through processes of socialization and internalization'. In relation to the creation of tacit knowledge in the first instance, however, whilst not explicitly stating the fact, many researchers have eluded to the fact that tacit knowledge is accumulated through personal experience over time (Brockmann & Anthony 2002; Bryant 2003; Nonaka & Takeuchi 1995). This leads to the question of the role of this personal experience in not only the acquisition of new knowledge, but also in the discarding of old knowledge.

Whilst for purposes of the model, explicit and tacit knowledge are treated separately, recognition is given to the fact that these are not easily separated. It has been suggested that those considered to be experts in a particular field may be the worst at unlearning as they have invested a lot of time and resources into their current knowledge and therefore may have quite entrenched beliefs (Zell 2003), most of which are internalised at the level of tacit knowledge. Knowles and Saxberg (1988) also suggest that those who have invested heavily in their current knowledge may not be willing to unlearn. Linking back, particularly to some of the earlier adult learning theories, concepts such as the Laws of Exercise and Effect (Thorndike 1914, as cited in Vincent & Ross 2001) suggest that those who have acquired and used knowledge over a long period of time, with the behaviour having been reinforced or rewarded, are more likely to have a strong commitment to such knowledge and behaviour. This then raises the question as to whether, due to this use and reinforcement, it may also be more difficult for an individual to unlearn. It would stand to reason that long-held views and

knowledge acquired and reinforced over a long period of time may be considered more difficult to unlearn than recently acquired knowledge, to which the individual has less of an emotional attachment.

A contrary viewpoint, however, was provided by Balogun and Jenkins (2003) when discussing ability to absorb new knowledge, claiming that 'absorptive capacity will be higher when there is already prior knowledge of a particular specialist area, making it easier to absorb new knowledge about this specialism' (Balogun & Jenkins 2003, p. 249). This, however, appears to be a contradiction of the previously identified claim that proactive inhibition caused by the existence of prior knowledge results in inability to take on new information or knowledge (Lyndon 1989). It could be argued that as long as the new information or knowledge does not create dissonance then absorptive capacity will be higher, and resistance may be lessened. Nonetheless, regardless of whether it is of assistance to unlearning or a hindrance, it would appear that previously acquired knowledge is recognised as having some influence on unlearning. Tacit knowledge in particular raises issues in relation to unlearning due to the fact that it is less easily identified or articulated, meaning it may be less easily challenged as a part of the unlearning process.

Organisational memory
Generally, tacit knowledge is discussed only as it exists within individuals. It is suggested, however, that in a broad sense, the more recent focus on organisational memory within the organisational learning literature in many ways reflects tacit knowledge at an organisational level. More has been written about organisational memory in the information technology field than in the general management literature. These take a systems focus to the issue of organisational memory, inferring that information and data can be captured and stored to aid organisational memory. However, this gives little credence to the recognition of the contribution of tacit knowledge to organisational memory. In contrast, however, Anand, Manz and Glick (1998) discuss systemic memory (equated with organisational memory) as distinct to group or individual memory, and suggests that being able to access 'soft knowledge' (ie. tacit knowledge, belief structures, etc.) is essential for organisations to function effectively. Argyris and Schon (1978) likewise acknowledge the role of organisational memory recognising that '…in order for *organizational* learning to occur, learning agents' discoveries, inventions, and evaluations must be embedded in organizational memory' (Argyris & Schon 1978, p. 19).

Stein (1995) defines organisational memory as organisations having 'the means to retain and transmit information from past to future members…'. (Stein 1995, p. 17). Stein (1995) also emphasises that organisational memory has implications for and relates directly to learning and unlearning. Along similar lines, Levitt and March (1988) define organisational memory as 'how organizations encode, store, and retrieve the lessons of history despite the turnover of personnel and the passage of time' (Levitt & March 1988, p. 319). Furthermore, Paoli and Prencipe (2003) suggest that organisational memory comprises both schemata (intangible elements such as mental models) and standard operating procedures (tangible elements). All of these recognise that organisational memory is not just explicit knowledge that is captured; but importantly, that organisational memory also has a tacit dimension. When acknowledging that organisations possess this explicit and tacit knowledge within organisational memory, it then can be assuming that this knowledge will impact upon the ability of the organisation and its member to unlearn.

Individual frames of reference

Finally, the third level considered within the model focuses at an individual level on frames of reference, and organisationally on culture. Mezirow (2000) defines frames of reference as those deep-seated underlying values and belief systems that guide, shape and dictate the everyday attitudes and behaviours of the individual. He suggests that what we do and do not perceive, comprehend and remember is profoundly influenced by our frames of reference.

Mezirow (2000) specifically uses the term, frames of reference, however, many other terms can be found in the literature, such as mental models (Kim 1993), cognitive maps (Huber 1991), schemas (Barrett, Thoman & Hocevar 1995), theories of action (Hedberg 1981) and paradigms (Markoczy 1994). These are considered to manifest themselves through 'perceptual frameworks, expectations, world views, plans, goals, sagas, stories, myths, rituals, symbols, jokes, and jargon' (Nystrom & Starbuck 1984, p. 55), indicating some overlap with what is commonly referred to as culture at an organisational level. Barrett, Thoman and Hocevar (1995) suggest that these mental models play a large part in successful change, emphasising 'effective change requires that organisation members alter their cognitive schemas for understanding and responding to organisational events' (Barrett et al. 1995, p. 356).

Acknowledging the existence of these frames of reference, or cognitive schemas, helps to address the misconception that when trying to implement individual change or to encourage learning; and unlearning, new information can simply be presented and will be integrated into current knowledge and/or behaviours; referred to a the 'clean slate fallacy' (Newstrom 1983). On the contrary, Newstrom (1983, p. 37) suggests that trainees 'do not have a clean slate, but a deeply entrenched behavioural pattern that has been reinforced for years'. Therefore, it can be argued that these frames of reference have the potential to influence an individual's unlearning. As Hedberg (1981, p. 18) suggests, 'unlearning makes way for new responses and mental map'", and thus may also 'threaten…a learner's theory of action' (Hedberg, 1981:19). Therefore, for effective unlearning to occur, ways to identify and address existing frames of reference must be found.

ORGANISATIONAL CULTURE

Culture at the organisational level can be likened to the previously discussed frames of reference at the individual level. Huber (1991) in fact uses the term organisational frames of reference when referring to organisational culture. Culture has long been seen as the shared or commonly held beliefs, assumptions, values and taken-for-granted norms and behaviours that govern organisations (Cameron & Freeman 1991; Goodman, Zammuto & Gifford 2001; Schein 1996). Balogun & Jenkins (2003) believe that culture is really a reflection of tacit knowledge held within the organisation and Finne (1991) suggests that organisational routines which either assist or hinder change embody a large amount of tacit knowledge. Walsh and Ungson (1991, p. 63) advocate that 'culture embodies past experience that can be useful for dealing with the future' and also see culture as one of the retention facilities of organisational memory.

Levitt and March (1988) also take into account the impact of past experience, suggesting that organisations learn 'by encoding inferences from history into routines that guide behaviour. The generic term "routines" includes the forms, rules, procedures, conventions, strategies and

technologies around which organizations are constructed and through which they operate. It also includes the structure of beliefs, frameworks, paradigms, codes, cultures, and knowledge that buttress, elaborate, and contradict the formal routines' (Levitt & March 1988, p. 320). This acknowledges the existence and influence of inert knowledge, organisational memory and organisational culture in the organisational learning process.

Dominant logic is another term used by Prahalad and Bettis (1986) to suggest that frames of reference exist not only at the individual level, but also at the organisational level. Dominant logic is defined as 'a mind set or a world view or conceptualization of the business and the administrative tools to accomplish goals and make decisions in that business. It is stored as a shared cognitive maps (or set of schemas) among the dominant coalition' (Prahalad & Bettis 1986, p. 491). Markoczy (1994) similarly refers to paradigmatic routines which exist in organisations and 'reflect a cognitive structure developed by members of a group or organization in a given social, institutional context' (Markoczy 1994, p. 10). These are often taken for granted by those within an organisation, but can have profound impact on attempts to implement changes, and may make organisations more resistant to change, in an effort to maintain these routines. Just as frames of reference may influence learning and unlearning at the individual level, it is suggested that organisational culture as a reflection of inert knowledge and organisational memory, may play a part in organisational learning and unlearning.

FUTURE RESEARCH

From the review of the background literature in the area of unlearning, there are a number of individual concepts within the model described that have been extensively researched in isolation. However, in terms of researching the factors discussed in relation to their influence on unlearning, the literature provides little direction, and these have been highlighted within the model. Of particular interest is how factors such as tacit knowledge, explicit knowledge, and frames of reference at the individual level; and inert knowledge, memory and culture at the organisational level, influence individual unlearning in organisations.

It is, therefore, proposed that empirical research be conducted addressing broadly, the nature and extent of the individual and organisational factors that influence unlearning within the workplace. In particular, the focus of this research will be on four issues:

- How individuals unlearn in various work organisational contexts
- The nature of the relationship between the three levels of individual knowledge presented in the model and individual unlearning
- The nature of the relationship between the three levels of organisational knowledge presented in the model and individual unlearning
- Identification of other contingent factors that may influence individual unlearning such as age, gender, length of service, or type of industry.

Based upon these areas for research the proposed research will involve a mixed methods study relating to factors influencing individual unlearning within work organisational contexts. The model presented in this paper will provide a theoretical framework to be utilised to guide this study.

CONCLUSION

As the pace of change continues to accelerate, the importance of learning and unlearning at both the individual and organisational levels are recognised as critical to the ongoing success of organisations. The model in this paper provides an explanation of links between concepts considered to be important during the processes of learning and unlearning, at both the individual and organisational level. It suggests that it is important to address the interface between individual and organisational learning in order to better understand the relationships and interactions. Whilst the literature to date has provided a sound basis for development of this model, it is also clear that further empirical research is required to inform the debate about unlearning at the individual and organisational levels.

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