A PRACTICAL APPROACH TO ORGANIZATIONAL UNLEARNING

Eric Laguë, Laval University, Quebec, Quebec, Canada
Khalil Rhaiem, Laval University, Quebec, Quebec, Canada

ABSTRACT

The purpose of this paper is to shed light on organizational unlearning as a part of managerial processes. Organizational unlearning has been gaining more attention in the last decade. Nevertheless, studies on organizational unlearning remain scarce compared to its counterpart, organizational learning. This paper aims to update current knowledge on unlearning and to reinstate its importance in the knowledge value chain/business model. We used portions of the literature that explicitly state “unlearning” as their main or subsidiary topic and produced a “scoping review” that highlights the different concepts associated with unlearning. Both the concept of organizational unlearning and its importance seem to be rather accepted in current literature as no new definition of O.U. has emerged in literature since last reviewed in 2008. The focus seems to have shifted from defining unlearning to defining its context and the parameters surrounding its application. This paper is an attempt to pursue the work of Zahra and Tsang (2008) where they review literature’s organizational unlearning concepts. In the current paper, we review suggested/identified barriers and facilitators related to the unlearning process.

Keywords: Review, organizational unlearning, organisational unlearning, barriers, facilitators

1. INTRODUCTION

In the knowledge economy, information and knowledge are recognized to foster performance, competitiveness and growth (Hitt et al., 2001). Firms are faced with an ever changing environment, therefore, firms need to evolve and adapt (Grossman and Helpman 1991). They revise their technology and processes to increase their flexibility, efficiency and performance (Grteis, 1995). Such modifications trigger needs which are answered through individual learning, which is then incorporated within the organization, thus becoming organizational learning. In current working environments, knowledge (embedded or not) has become a key factor in creating appraisable value for the client and contributes to firms’ performance.

From a managerial perspective, learning (increase in the organization’s stock of knowledge) has been mainly viewed as a process purposefully engaged in to level a mismatch between current outcomes and desired ones (Greve, 2002). Although committing efforts and resources, organizations are not always able to achieve the desired outcomes. Therefore, empirical studies have first suggested, and then highlighted, the need to foster unlearning as a component of managerial practice’s challenges and opportunities for managing knowledge and productivity in organizations (Ashworth, 2006). Bennis et al., (1976) have described unlearning as a “planned organizational change” that requires “conscious, deliberate, and collaborative effort to improve the operations of a human system”.

“Unlearning has thus been viewed as memory elimination in a system” (Greeno, 1971). Empirical researches has shown that the need to unlearn manifests itself at various degrees in the different levels of organizations (Chinowsky & Carrillo, 2007; Lynn, 1998). Furthermore, research has demonstrated that “unlearning” currently inadequate responses is a prerequisite to learning new or more adequate responses (Martin de Holan and Phillips, 2004; Becker 2008; Starbuck, 1996). Those findings also seem to propose that this need is present in most industries, at various levels. Unlearning is now perceived as being both essential to surviving in a competitive market and/or to develop a competitive advantage (Shankar et al., 2013).
“Unlearning” has been described from various perspectives (the concept of unlearning as it appears through literature is reviewed elsewhere in this paper). From an overview of the literature, unlearning is often associated to keywords such as forgetting, knowledge loss and knowledge destruction. Those are also often depicted in dyads: Unlearning/learning (Akgün et al., 2003), forgetting/retaining, knowledge loss/ knowledge acquisition, knowledge destruction/ knowledge creation.

Though there has been extensive development of literature on learning, its counterpart has been relatively ignored until early twenty-first century (Martin de Holan et al., 2004). To follow Tsang and Zahra’s work (2008), this paper is a review of a selected portions of the literature concerning unlearning (and a few related concepts as organizational forgetting and knowledge loss).

Tsang and Zahra’s paper is “theoretical” and aims to define the concept of unlearning. They also suggest that future research should include “conceptual development, processes, barriers and facilitators, as well as organizational and institutional contexts” and point out that “our knowledge about ways of facilitating organizational unlearning is limited and leads to contradictory recommendations”. Hence, we ought to seek better understanding of organizational unlearning and to survey barriers and facilitators of organizational unlearning.

2. PAPER’S LAY OUT

Following the introduction, we will present the method we used to identify papers that are relevant to organizational unlearning and those further used in this scoping review.

We position various frameworks relevant to our understanding of organizational unlearning such as organizational knowledge, unlearning and forgetting before depicting the main topics encountered in organizational unlearning’s literature (section analysis of hindrances and catalyzers) and generating a comprehensive list of the different facilitators and barriers that are to be considered when trying to manage unlearning in an organization (see the tables). We conclude with few remarks that may be of further interest.

“The main strengths of a scoping study lie in its ability to extract the essence of a diverse body of evidence and give meaning and significance to a topic that is both developmental and intellectually creative. As with other approaches to research and evidence synthesis a more standardized approach is required.”

2.1. Method

Included articles were identified using select keywords: unlearning, organi(s/z)ational forgetting along with knowledge: destruction, forgetting, deterioration, extinction, loss) through ABI/Complete. This highlighted 1263 peer reviewed articles. Further screening was done using previously mentioned keywords but searches were limited to title and abstract field. 11 articles having unlearning in their title were identified along with 109 articles depicting keywords in their abstract (11 for Organi(s/z)ational forgetting, 73 for unlearning, 24 for knowledge loss and 1 for knowledge deterioration). Among the last 120 selected articles, 60 were available through either Université Laval or Université de Montréal accesses. Those articles constituted the pool of articles reviewed for this scoping review on organizational unlearning.

When reviewing the literature, keywords such as unlearning, forgetting, etc. are often encountered along with other terms like adjustive unlearning, reinventive unlearning or organized forgetting. We recognized the validity of the attempts to generate a set of keywords that may help depict the processes’ intensity that firms and organizations’ members are going through. However, we believe that those subtleties are not of interest to the current paper and the general idea that we are sharing.
3. CONCEPTUAL FRAMEWORK

3.1. Organizational knowledge

Knowledge can be explicit/codified/tangible just as it can be tacit/non-codified/intangible (Kim, 1998; Nonaka and Takeuchi, 1995). Organizational knowledge is mainly composed of tacit knowledge (Kim, 1998) which is critical in strategic decision making (Brockmann and Anthony, 2002) and innovation (Yamin and Otto, 2004).

Organizational knowledge is conceptualized as a stock resulting from the ongoing sum of flows as cleverly depicted by (Dierickx and Cool, 1989, DeCarolis and Deeds, 1999) in their bath reference. As a stock, organizational knowledge is encompassed as either repositories, routines or structures; whereas, as a flow, knowledge has to be considered in regard to its movement across the different boundaries. The first form of organizational knowledge is routines and patterns. These are structured knowledge passed on in the organization amongst employees. They are thought to be known best practices to perform a particular task (Nag et al., 2007). The second form of organizational knowledge is considered to be the organizational structures that are established rights, responsibilities, duties and communication lines within the organization (Walsh and Ungson, 1991). The third form of organizational knowledge are the repositories also known as organizational memory systems. They represent codified knowledge owned by the organization (Olivera, 2000). Theorization of knowledge as “flow” arises from the perceived instability of knowledge in organizations over time. However, further studies have demonstrated that this instability results from both forgetting and from changes in firms’ environment. Again, the bathtub comparison really helps to represent both forgetting (leakage) and changes in environment (added water) (Dierickx and Cool, 1989; DeCarolis and Deeds, 1999).

Knowledge is associated with innovation and the development of competitive advantage (Kaufmann and Tödtling, 2002; Lee et al., 2010). In order to develop or maintain that competitive advantage, firms and organizations have tried to foster learning and acquisition of knowledge (Nonaka et al., 2000). Although committing more and more resources to learning, organizations have not been able to achieve desired outcomes. This has proven that knowledge cannot simply be accumulated within the organization. From further analysis, evidences have shown that unlearning is required to incorporate new knowledge and achieve desired outcomes. This can be simply depicted as making room for new knowledge. Although
capacities are not the only reason to foster organizational unlearning, this simply illustrates that unlearning is a prerequisite for learning in organization.

3.2 Unlearning

Unlearning has been often defined in literature. When reviewing the 60 articles on our list, it seems to have first been described as an organizational trait by Greeno (1971): “Unlearning has thus been viewed as memory elimination in a system”. Greeno (1971) and Bennis (1976) have described unlearning as a “planned organizational change” that required “conscious, deliberate, and collaborative effort to improve the operations of a human system”. During the 80’s, unlearning was defined by various authors as “The process of reducing or eliminating pre-existing knowledge or habits (Hedberg, 1981; Newstrom, 1983), and beliefs” (Alba and Hasher, 1983; Goldman, 1986).

Unlearning was then closely related with learning in Tsang and Zahra’s (2008) article which states that unlearning is a “gradual, continuous process that occurs more or less simultaneously with learning. When old routines are replaced by new ones, they are gradually removed from an organization’s memory”. This illustrates Anand et al.’s idea (1998): “The disruption and re-creation of portions of the organization’s memory” and Bettis and Prahalad’s concept (1995) who described it as an essential part of learning: “strategic learning and unlearning of the kind involved in the dominant logic are inextricably intertwined”.

Becker’s group adds another dimension when they claim that unlearning can occur at an individual level: “the process by which individuals and organizations acknowledge and release prior learning (including assumptions and mental frameworks) in order to accommodate new information and behaviors” (Becker, 2005, p. 661).

On the other hand, many authors have been sceptical about the validity of the research on unlearning. John Howells, Nathalie Mitev and Joachim Scholderer are known detractors of research on unlearning. In their article: Forget Organisational Unlearning: A Sceptical Look at the Use of the Concept of ‘Unlearning’ in Organisational Analysis they have brought several arguments that support their claim. In their paper, they clearly demonstrated that the use of unlearning is improper because the correct meaning of unlearning is, as they report, to unteach, to remove from knowledge or memory and should describe actual reversal of learning (Oxford English Dictionary as cited by Howells et al. (2009).

In their claims, they do not recognize that unlearning (removal from memory) occurs, neither from a social perspective nor a technological perspective of memory. From the social perspective of memory (Cross and Baird, 2000) they argue that: “Upon learning, certain elements of the previous understanding are ‘discarded from application’ rather than discarded from memory; old knowledge is not unlearnt but retained, although no longer seen as applicable to current circumstances”. From a technological perspective of memory, they argue that “Discard occurs when new and substituting understanding of alternative practice has become compelling” (Howells, 2009).

We believe that unlearning has to be defined as an organizational dynamic capacity (Teece et al., 1990; Easterby-Smith, 2011) and/or process to remove no longer needed knowledge from memory. We do not deny that unlearning/removal from memory occurs at the individual level but it is unlikely that self-directed unlearning at an individual level requires planning. At the individual level, unlearning should be considered as a personal research of truth and inner alignment (Nonaka and Takeuchi, 1995).

From an operational perspective, unlearning can be seen as a noticeable change in organizational beliefs, norms, values, procedures, behavioral routines, and/or physical artifacts (Tushman, 1986; Walsh, 1991; Akgün et al., 2003; Sinkula, 2002).

As many authors before us (Martin de Holan, 2011), we feel compelled to distinguish between unlearning and forgetting. From a social perspective of knowledge (Cross and Baird, 2000), unlearning refers to the intentional discarding of knowledge in such that it requires both intentionality/will and requires voluntary actions (Tsang and Zahra 2008). Hence, unlearning implies carrying out a series of programmed tasks, whereas forgetting happens in spite of intentions and/or voluntary actions (Easterby-Smith, 2011). Therefore, forgetting cannot be targeted to a specific set of knowledge as it is an unconscious process.
In literature, forgetting is both happening at an individual and organizational level. In an organization it "relates either to losing the original rationale for establishing habits and organizational routines or to losing old routines, procedures, and systems themselves." (Easterby-Smith, 2011). Nevertheless, forgetting is an important concept with regard to unlearning as forgetting (either individual or organizational) can hinder or facilitate unlearning.

In the following section, we present elements that have been described in the literature that may act as either barriers and/or facilitators to unlearning.

<table>
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<th>Table 1: Barriers influencing unlearning</th>
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<td><strong>Barriers</strong></td>
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<td><strong>Personal investment</strong></td>
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<td><strong>Distance to knowledge</strong></td>
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<td><strong>Illegitimacy of knowledge</strong></td>
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<td><strong>Perceived utility / necessity</strong></td>
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<td><strong>Lack of Incentive</strong></td>
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<td><strong>Personal motivation</strong></td>
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incentives, to address employee motivations and increase knowledge sharing within organisations.

| Anxiety | Moreover, at the individual level, learning anxiety and survival anxiety may inhibit people from unlearning what they know in order to learn something new. | Coutu (2002) cited by Tsang and Zahra (2008) |
| Low absorptive capacity | The unlearning arguments outlined above seem to contradict absorptive capacity theory. In fact, absorptive capacity is the principle that assimilating new knowledge requires prior knowledge (Cohen and Levinthal, 1990). Similarly, absorptive capacity can be conceptualized as a set of organizational abilities to manage knowledge, assimilate it, and apply it to their ends. | Zhara and George (2002) |
| Recency | “… new knowledge will dissipate quickly. Conversely, a recognition of the differences between new and old knowledge can lead to changes in the methods used to introduce it into the memory system (as was the case with a manager who decided to move away from the development of detailed rules in favor of situational training, …)” | Lopez and Sune (2013) and Martin de Holan et al. (2004) |
| Managerial processes | Problems. However, the stage-gate approach often produces unintended consequences that inhibit innovation. In some firms, the stage-gate process confers too much certainty on initial investment presumptions and encourages developers to march ahead more or less in lock-step. The binary “Go/Kill” decision, taken too literally, can inhibit the natural, often non-linear evolution of an emerging opportunity. | Hutchins & Muller (2012) |
| Refusal to Relinquish and prior need to acknowledge | “While at the individual level forgetting is operationnalised though awareness and relinquishing (Becker, 2008), at the organizational level relearning involves changing the way activities/routines are performed in the organization (Akgün et al., 2007). People can only relinquish inappropriate assumptions once they have admitted to making them (Nonaka and Takeuchi, 1995).” | Becker (2008), Nonaka and Takeuchi (1995) cited by Cegarra-Navarro et al. (2011) |
| Complexity/difficulty to transfer | The unarticulated knowledge gained on complex skills and processes during product development is not easy to capture. Retaining and transferring critical knowledge to the next generation of employees is recognised as an important but challenging task for managers (Parise et al. 2006). | Parise (2006) cited by Shankar (2013) |
| Knowledge properties | Argote et al. (2003) suggested that knowledge properties affect the rate at which knowledge is accumulated, how much is retained, where it is retained and how easily it diffuses within and across firm boundaries. | Argote (2003) cited by Fernandez (2009) |
| Long-term success | In particular, ‘long-term success weakens the ability to unlearn radically and to reorient strategically’ (Starbuck and Hedberg, 2001). | Starbuck and Hedberg, (2001) cited by Tsang and Zahra (2008) |
| The age of the organization | The age of an organization can become a barrier to unlearning. Despite our knowledge of such a relationship between organizational age and unlearning, we are ignorant about how different types of routines evolve and become entrenched as an organization grows old, and the effective ways of discarding routines in young versus old organizations. | Tsang and Zahra (2008) |
| | Age is a source of inertia inhibiting change (Ginsberg and Buchholtz, 1990), and a barrier to organizational unlearning. These people are generally older and less receptive to change. | cited by Tsang and Zahra (2008) |
Pfeffer (1983) also observes that an organization dominated by employees of long-standing tenure is not attractive to younger, ambitious individuals who may be receptive to new ideas.

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<tr>
<th>Facilitators</th>
<th>Definition</th>
<th>Reference</th>
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<tr>
<td>Organizational change</td>
<td>&quot;when current knowledge is perceived as an obstruction to new knowledge&quot;</td>
<td>Anand et al. (1998)</td>
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<tr>
<td>regular rotation of personnel</td>
<td>Regular rotation of personnel into and out of different positions and postings. It contributes to forgetting because most memory is situational; it depends on awareness of the particular context in which events took place. Hence, the introduction of systematic mobility reduces the connection between individuals and the settings in which their experiences took place.</td>
<td>Easterby-Smith and Lyles (2011)</td>
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<td>Managerial turnover</td>
<td>Managerial turnover or long-term absence is also found as a restraining factor in knowledge management</td>
<td>Durst et al. (2011) cited by Shankar (2013)</td>
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<tr>
<td>Change Business orientation</td>
<td>Provide other intermediate services such as supply assembly, technical coverings, metallic moulding (e.g. cut and fold services), thermal treatments, maintenance, and other technical services (e.g. design or soldiering), and therefore, many of them depend on the quality of the services provided</td>
<td>Cegarra-Navarro et al. (2011)</td>
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<tr>
<td>Leadership</td>
<td>It is found that if a knowledge-retention programme and strong leadership are not present, the organisation sub-optimises and becomes vulnerable to knowledge loss (Liebowitz 2011).</td>
<td>Liebowitz (2011) cited by Shankar (2013)</td>
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<tr>
<td>Disruption of organizational processes</td>
<td>&quot;While individuals may still remember their part in the organizational processes that led to a certain response to a particular situation, the web of organizational knowledge that produced a response to a specific situation has been disrupted.&quot;</td>
<td>Martin de Holan and Phillips (2004)</td>
</tr>
<tr>
<td>Crisis</td>
<td>'Episodic change' is infrequent, discontinuous and intentional (Weick and Quinn, 1999). Episodic change does not normally follow the model of variation and selective retention. Crisis is often the trigger of episodic change.</td>
<td>Weick and Quinn (1999) cited by Tsang and Zahra (2008)</td>
</tr>
<tr>
<td>Governance structure</td>
<td>One dimension of the context is the governance structure, such as joint venture versus wholly owned subsidiary. It has been well established that inter-partner dynamics affect learning in joint ventures (Inkpen &amp; Beamish, 1997) but we know little about the effect of these dynamics on unlearning</td>
<td>Inkpen and Beamish, (1997) cited Tsang and Zahra (2008)</td>
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4. ANALYSIS OF HINDRANCES AND CATALYZERS

Loss of information and knowledge over time is often referred in the literature as the effect of time passing. However, although very intuitive, that notion of passage of time is unable to account for all encountered loss of knowledge in organizations (White, 2012). According to the many definitions presented above, we do not see any relevant difference in knowledge loss and forgetting as both terms imply an unwillingness to let go of the knowledge. This is diametrically opposed to discarding knowledge, which implies a choice. As we judge knowledge loss and forgetting to be equivalent concepts, we will use them interchangeably herein.
The following sections describe the main factors found in our overview of the literature on organizational unlearning. As you read, you will see that those can either be perceived as barriers or catalyzers depending mainly on the outcomes desired and the underlying processes.

4.1 Forgetting caused by faulty memory systems

It has been suggested that the first occurrence of knowledge loss is usually related to memory systems. It is usually described as a dissipation of the knowledge’s pool cause by faulty or inadequate memory systems (Landry, 1999; Argote et al., 1990; Darr et al., 1995; Epple et al., 1991). Furthermore, “information may be degraded during storage, or storage capacity may be too small to hold all the desired information”, access may be compromised and “retrieval may fail owing to problems in identifying the exact place in which the relevant information is stored” (Shankar, 2013; Blackler et al., 1999; Easterby-Smith, 2011). In addition, the need to share and access information may lead to loss during processes of transformation which are often required due to the many formats in which information can be encoded (Shankar, 2013). The need to rely on memory systems to enact structures and procedures can ease the evolution of the organization that strongly rely on them. As structures and procedures are upheld by the use of those memory systems, their quick removal and replacement may disrupt organizational routines and therefore facilitate acceptance of new structures, if the new memory systems are properly designed and in accordance with the desired outcomes.

4.2 Unlearning through turnover

From our review, personnel turnover is mainly used a catalyzer of organizational unlearning. Although, some loss of knowledge may result from the process, managers seem to consider the practice as effective. However, the data on personnel turnover suggests that that practice is mainly (if not only) effective when applied to top management (Easterby-Smith, 2011). Personnel turnover at other level, in an organization seems to mostly result in organizational knowledge loss/forgetting.

It is relatively easy to picture how the departure of a key employee or a knowledgeable individual may compromise both knowledge flows and knowledge stock (Argote and Epple, 1990). Yet the rapid hiring of a new employee is as likely to disrupt organizational knowledge and cause loss. Hong et al. (2006) relate to this by stating that “when knowledge is transferred from one group, or organization, to another, it is often necessary for the receivers to reframe knowledge into their own terms so that it fits with their existing experience and they acquire “ownership” of it”. Hence, exacerbating organizational knowledge loss through sequential and repetitive knowledge transfer (Hong et al., 2006). Furthermore, other evidences suggest that hiring leads to organizational knowledge loss as comprehensive transfer of the knowledge is not always possible (Schmitt, 2012).

4.3 Effect of “recency” on unlearning

Interestingly, some authors refer to a new attribute to knowledge that can explain part of the propensity to lose or discard knowledge. These authors use the term “recency” to qualify this dimension of knowledge. The “recency” of a piece of knowledge refers to the time elapsed since its entry into memory systems (Shafer et al., 2001). Newly acquired knowledge is simultaneously harder to incorporate and easier to lose (Martin de Holan et al. 2004). This dual nature of knowledge would appear to have a direct link with the passage of time. However, it is not related to time’s passing, but rather to knowledge integration processes and whether knowledge has move from short-term memory to long-term memory (Darr et al., 1995). Martin de Holan and Phillips stated: an “organization is unable to retain a piece of new knowledge that enters the organization through knowledge transfer or creation, but that has not been integrated into the memory system (e.g., has not been transformed into a standard operating procedure), and so is quickly lost” (Martin de Holan and Phillips, 2004). This process could be known as “failure to consolidate” e.i. “loss of knowledge before it can become embedded in the organization’s memory” (Martin de Holan and Phillips, 2004). So knowledge that has been accepted and practiced for a while becomes a barrier to unlearning. On the other
hand, innovation managers have found that it is possible to take advantage of that characteristic and used knowledge “recency” to remove a piece of knowledge “before it becomes embedded in the organization’s memory system” such as innovations (usually from knowledge transfer) having unforeseen and undesired effects on the organization or being inadequate in current organizational perspectives (Martin de Holan and Phillips, 2004).

We would like to suggest that this concept of “recency” of knowledge could actually be a more precise variable than the age of the organization in regard to the intensity of the unlearning process (Ginsberg and Buchholtz, 1990; Tsang and Zahra, 2008).

4.4 Effect of intervals

This is a critical aspect of the management of knowledge as it is one over which managers have the most power. It is accepted that repetition / use / reinforcement of knowledge leads to improvement of production capacity and better retention of knowledge (the counterpart of forgetting) (Argote and Epple, 1990). Once imprinted, this knowledge is harder to modify and hence constitutes a barrier to unlearning. On the other hand such technique/repetition will be most effective when trying to implant new method or behavior during unlearning/learning processes.

To overcome the barrier created by imprinting, managers can favor unlearning by modulating both the length of time spent away from previous activities and how that time is spent.

It has been proven that the length of the interval for which the knowledge has not been used has a proportional negative effect on production capacity (Ekstrand, 1967). Indeed, an interruption period, a reallocation or even just shift hours affect the knowledge retention and the production capacities. That is related to the activities undergone during that interval (White, 2012). This also suggest, that employees being reallocated to another project not using specific knowledge and skills previously required may also be at risk of forgetting key proficiencies (Smunt, 1987).

4.5 Distance to knowledge and incompatibility

These two factors affecting knowledge retention and loss are known as the “distance to previous knowledge” (Newstrom, 1983) and “incompatibility with previous knowledge” (Dougherty and Hardy, 1996; Dougherty and Heller, 1994). These two factors are major components of the barrier created when trying to unlearn. Though related, these two concepts are not the same. They actually exist on a continuum, incompatibility being at a pole and distance representing a degree of incompatibility. The two are found both on individual basis and organizational basis. Distance to previous knowledge is proportionate to the spread that exists between the newly acquired knowledge (or attempting to acquire) and existing knowledge that is used and believed in (in every previously discussed forms of knowledge) (Martin de Holan and Phillips, 2004). This is explained, in part, by the need of individuals to have clear understanding of the purpose of modifying their responses and behaviors, which comes from the capacity to seize new knowledge and tie it into previously and still required knowledge with a minimum of uncertainty. The bigger the spread, the more difficult it will be to acquire and retain the new knowledge (Martin de Holan and Phillips, 2004). As previously stated, the distance to knowledge may arise from any aspect of organizational and individual knowledge.

4.6 Commitment to learn

Commitment to learn could be considered as a state of mind that goes beyond motivation. In his article “Agency in Voluntary Organizational Forgetting” (2011), Martin de Holan suggests that learning “is subject to intentionality and, consequently, to managerial agency”. Similar observations have been made by Will (2011), Baloff (1970) and Gershoni (1971), which suggests that commitment to learn is a trait that can be perceived at the individual and the organizational level (Spraggon and Bodolica, 2008). Knowledge retention, and hence knowledge forgetting studies have shown that “learning-by-doing”, though useful and
indispensable for some activities, has a counter-intuitive effect on knowledge retention. Research demonstrates that learning and retention have a component that requires active commitment from the individual (Martin de Holan and Phillips, 2004). The individual is required to feel the need to both learn and retain the information and knowledge. Otherwise, knowledge dissipates faster when unused (Shankar, 2013). Again this is clearly depicted when observing data on pull-driven versus push-driven assimilation of knowledge. Pull-driven knowledge is retained more effectively than pushed knowledge (Shankar, 2013), most likely because the users feel the need to learn and have already created a rationale (the why and the what is it good for) that will help them overcome most of the hurdles that they might encounter. In sum, personal and organizational commitment to learn (and unlearn) is a facilitator. This could mean that, in the current environment, one of the best choices for managers who try to input changes is to create the need to learn, display the expected conduct and support their employees in their learning.

6. CONCLUSION AND DISCUSSION

Knowledge loss seems inevitable as loss is a natural process occurring when no energy or resources are expended to compensate for it. Unfostered knowledge will eventually lead to knowledge loss or knowledge obsolescence, increased reaction time and loss of capacities that can disrupt organizations’ ability to react to changing environments (Martin de Holan, 2011). Knowledge loss/forgetting can be considered (most of the time) as a facilitator to the unlearning process as it diminishes the strength of the different hindrances. The attributes of knowledge from a social perspective make it possible to replace knowledge at the individual level and avoid re-emergence of the application of discarded knowledge in the organization.

Due to the many characteristics of the different knowledge used in an organization, knowledge management offers uncommon opportunities. If properly understood, organizational knowledge can be a key asset with which to create leverage and value. On the other hand, if not fostered, knowledge can quickly become a hurdle and may jeopardize the survival of the organization. Literature highlights many cases of contradictory outcomes of knowledge management, thus highlighting the need to better understand which parameters constitute either a hindrance or a catalyzer to the desired outcomes. Managers who recognize the hindrances may take advantage of individual and/or organizational knowledge characteristics. However, we conceive that it may be difficult to implant a new culture in an organization. It requires both resources and some kind of faith. It may also be more difficult if prior efforts have not lead to the desired outcome.

“Outcomes of learning efforts are uncertain because their value and usefulness to solve particular problems cannot be evaluated ex ante fully, not only because the outcomes of that learning may be remote in the future or too complex to be understood but also because the retention of what has been learnt is imperfect” (Martin de Holan, 2011).

Organizational learning is very important in the present knowledge economy. Firms and organizations have deployed lots of resources to increase their organizational knowledge and subsequent capacities. Though increasing the sum of knowledge and capacities available to the organization is to be considered “a good thing”, empirical research has demonstrated that knowledge features can hinder learning and subsequent development of capacities (both at the individual and organizational level). Therefore, it has been suggested that unlearning specific/targeted portions of the integrated knowledge may be a prerequisite to efficiently learning “new” knowledge that is incompatible to integrated knowledge. Furthermore, findings illustrate that unlearning is inefficient (or cannot happen) if the void created by the unlearning efforts is not filled by new knowledge which further integrate with still useful knowledge. Learning after unlearning cannot only be seen as an act of grafting new knowledge to fill a void. Learning and unlearning are co-happening processes; learning will occur spontaneously as unlearning progress. The “void/emptiness” created by the unlearning process cannot remain and will be filled either by new knowledge or by a return of previously integrated knowledge that was targeted to be eliminated (Martin de Holan and Phillips, 2004). This is probably due to individuals’ varying levels of resilience to uncertainty and to the necessity/requirement to act without the luxury to wait (see Coutu, 2002).

Even so, Tsang and Zahra (2008) theorize that unlearning and learning are two distinct concepts and that unlearning can happen without concomitant learning. From our analysis, we support their claim that
unlearning and learning are distinct concepts with regard to the nature of the process. As such, unlearning goes beyond learning: unlearning requires more personal capacities and resources than learning alone; furthermore, “learning can occur without unlearning” (Tsang and Zahra, 2008). However, contrary to Tsang and Zahra, we only conceive that unlearning can happen independently of learning when organizations are faced with survival or implementing a strategic reorientation. Still, contrary to Tsang and Zahra, we believe that organizational unlearning is linked to learning and therefore cannot be treated as distinct from it. Furthermore, we believe that unlearning in the strict sense (i.e. removal from memory) is not a suitable aim as the knowledge removed from practice may be of importance in an unforeseen future as depicted by Anand et al. (1998) or may be basis to further innovation when synergizing with new knowledge. Therefore, knowledge should be repositioned and responses/behaviours to stimuli should be invalidated and replaced by more adequate/desired responses. Unlearning is not a goal, unlearning is a process aimed at reducing identified hindrances’ strength impeding the adoption of the new knowledge (Bettis and Prahalad,1995). Unlearning is a process that is planned and organized. It is part of the knowledge value chain; it requires energy but improves the efficiency of learning.

Although “individual unlearning is an imaginary concept and not an empirical process”, unlearning at the organizational level can be easily grasped. Therefore, the term can be used to share and communicate the need and nature of the process throughout the organization. Managers using “unlearning” to refer to the process may gain significant impact and acceptance through general preconceived world view as described by Floyd (Floyd 2009). However, if we follow Howells et al. resolve, we would use the terms “discard of practice” as a consequence of learning new and better fitted responses and not “unlearning” to describe the process. Albeit, we are not sure that “discard of practice” could be applied to the organizational knowledge that are values and culture.

Research seems to depict a discrepancy between unlearning/learning aimed towards innovation versus aimed towards improvement of production. Though some could consider that the latter is incremental innovation and that the former is abrupt innovation, we do not support the difference. Rather, we believe that the difference between those two aims in terms of unlearning/learning process is related to maintenance of knowledge instability (Argyris and Schön, 1978; Senge, 1990). Hence, in the process of favoring innovation/abrupt innovation, an organization will attempt to maintain instability in knowledge and foster a culture of uncertainty (to a certain extent) whereas others will try to reach the objectives and revert to stability. This could easily relate to the emerging concepts of “unlearning context” described by Cegarra-Navarro, & al. (2011).

Further empirical research, should aim to better define the conditions/context in which unlearning is fostered. It could also be interesting to see if there are discrepancies in tolerable uncertainty levels (Zahra and George, 2002; Coutu, 2002) with respect to the sector of activities or the organizational structure units. In the same manner, it would be interesting to calculate the quantity of resources expended to maintain both acquired knowledge and disequilibrium/uncertainty within the organization.

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8. REFERENCES


9. **Author Profile(s):**

**Eric Laguë**, Ph.D. candidate at the University Laval, Quebec expected in 2013. Currently enrolled in graduate program of the Faculty of medicine and MBA graduate of Faculty of Business Administration.

**Khalil Rhaiem**, M.Sc candidate at the University Laval, Quebec expected in 2014. Currently enrolled in graduate program of Faculty of Business Administration.