

THE LEARNING ORGANISATION AND THE DEMANDS OF A KNOWLEDGE ECONOMY

RICHARD DOUGLAS, PH.D.
CENTRE FOR LABOUR MARKET STUDIES
THE UNIVERSITY OF LEICESTER

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Introduction

This paper sets out to accomplish two objectives: first to demonstrate a working knowledge of the concepts contained in this module, “Knowledge Management and the Learning Organisation.” Second, it attempts to address this research question:

To what extent do you agree that it is the learning organisation, rather than knowledge management, that properly addresses the demands of a knowledge economy?

To do this, a series of topics are discussed, including the terms “knowledge,” “learning organization,” “knowledge management,” and the “knowledge economy.” A comparison between the learning organization and knowledge management is undertaken, and a model for conducting realistic knowledge management is offered. Finally, a closing discussion of the research question is provided. It is suggested that differences between the two concepts are not as important as what can be implemented and why.

Knowledge Defined

What counts as knowledge? Managers in organizations are challenged with this epistemological question—especially with the decentralized and ongoing creation and use of knowledge at the point of action (Barnett, 2000). There seems to be as many definitions of the concept of “knowledge” as there are authors writing about it. However, a review of the literature reveals some common threads.

Knowledge, according to Giddens (CLMS, 2003), knowledge involves “structuration”; they produce and reproduce the social world and, by extension, knowledge. For organizations, this implies that knowledge is created by participating in the work itself. But created from what?

Information becomes the basis for knowledge creation. Increases in technology allow organizations to store and move information more quickly and in greater volumes than ever.

Information, combined with action, becomes knowledge (Tsoukas & Vladimirou, 2001). Also, information storage and transfer become the bases for knowledge storage and transfer (Argote, McEvily, & Reagans, 2003). "Information" can be defined as data placed into a relevant context, like the workplace (Mokyr, 2002). "Data" are bits of fact not yet put to use.

"What is key to effectively distinguishing between information and knowledge is not found in the content, structure, accuracy, or utility of the supposed information or knowledge. Rather, knowledge is information possessed in the minds of individuals; it is personalized information (which may or may not be new, useful, or accurate) related to facts, procedures, concepts, interpretations, ideas, observations, and judgments." (Alavi & Leidner, 2001)

In other words, knowledge is information highly personalized and used. Davenport and Prusak (1998) suggest a hierarchy that starts with Data, then continues to Information, Knowledge, Action, and ends with Experience (Davenport & Prusak, 1998). The implication here is that it is not sufficient to recognize that raw data can be turned into information and used as knowledge, but that knowledge can lead to action (workplace results) and experience (lessons learned for future use).

Besides placing knowledge in a hierarchy, the nature of knowledge itself can be examined. Nonaka (1991) cites the influential work of Michael Polanyi dividing knowledge into two types: Explicit and Implicit. Knowledge that has been identified, captured, recorded, and available for use by others is considered "Explicit." However, "we know more than we can tell" (Polanyi, quoted by Nonaka, 1991), meaning there is much more to knowledge than those things that can be made explicit. This "Implicit" knowledge is made up of all the things people need to know in order to perform in the workplace. It cannot be described or recorded. It cannot be

stored or used by others. (If it can be, such knowledge is transformed from Implicit to Explicit.) “Knowledge is not a thing that can be picked up and manipulated.” (CLMS, 2003, M2CU6 - 10) It is embedded in human relationships (CLMS, 2003, M2CU6 - 1) and is difficult to define. Yet it exists. And it is valuable.

The concept of “knowledge” can also be explored in how it is used. Created at the point of its application (Barnett, 2000), knowledge can be employed to solve problems and restore the status quo. Argyris and Schoen (from Easterby-Smith, 1997) called this “single-loop” learning. Double-loop learning, with its focus on gaining insight, is a “Rethinking of existing rules according to why things are being done” (Easterby-Smith, 1997, 1106), a questioning of why things are done a certain way and an emphasis on finding better ways of doing them. Finally, “triple-loop” learning envisions new, improved states of being and doing business—seeking a competitive advantage. It is about teaching people *how* to learn (CLMS, 2003, M2CU6 - 2).

Organizational Learning and the Learning Organization

As is with the term “knowledge,” there is very little consensus as to the meaning of the terms “organizational learning” and “learning organization.” (Gould, 2000) Additionally, organizational learning and individual learning are related (Popper & Lipshitz, 2000). But to what extent is this so? Organizational learning can be considered as an accumulation of individualized learning taking place in an organization. As such, it is impacted by individual workers’ “filters” like beliefs, insights, and personal reflection (Popper & Lipshitz, 2000). Or, organizations can be viewed as extant bodies that “continuously develop, capture, and pursue knowledge....” (Chinowsky & Carillo, 2007, 122) In fact, looking at the parts instead of the whole is a mistake, according to Senge (2006), who recommends exploring things as a whole since the world itself exhibits qualities of “wholeness.” (p. 9) Regardless of orientation,

organizational learning reflects the accumulation of knowledge, and is “the process of improving actions through better knowledge and understanding.” (Fiol and Lyles by Easterby-Smith, 1990, 24)

While organizational learning is the process through which learning takes place—and knowledge may be generated—the “learning organization” describes the characteristics of an organization that learns (Gould, 2000); organizations that engage successfully in behaviors that support their learning. An organization can have a learning strategy towards becoming a learning organization. These two concepts are compatible, not identical (King, 2001) Organizational learning describes a phenomenon where the organization learns and collects knowledge. The term “learning organization,” however, describes characteristics about the organization that, if present, might lead one to conclude that the organization fits the definition of a “learning organization.” It tells the observer what the organization is (or should be), rather than what it does (or should do). This distinction will be revisited later.

There are many models describing the learning organization. According to Gould (2000, 587), three “seminal texts” are:

- *Organizational Learning* by Argyris and Schon
- *The Learning Company* by Pedler, *et. al.*, and
- *The Fifth Discipline* by Senge (discussed below)

But even among these, there are significant differences in their depictions of the learning organization, as well as examples offered. But as Gould notes, “there is a fundamental tension between descriptive and prescriptive research in this area.” (p. 5) This difference is explored more fully later in this paper as the “Is vs. Do Dichotomy,” but is a running theme regarding the goal of being a learning organization and what it takes to reach it.

No discussion of the learning organization can be complete without commenting on Peter Senge's *The Fifth Discipline* (Senge, 2006). In it, Senge provides a model with five components ("disciplines") which, if mastered, fully describe a learning organization. These disciplines are ideals. Unfortunately, like many theorists, Senge falls short on practical solutions to use in reaching for these ideals. The reader is limited mostly to the concepts and some industry examples gathered to illustrate them. Neither is sufficient support for the practitioner seeking solutions that can be understood and applied. The five disciplines are Systems Thinking (looking at the entire situation, not just its individual components), Personal Mastery (People committed to lifelong learning), Mental Models (paradigms through which people see the world), Building Shared Vision (where organization members share the same goals), and Team Learning (building synergies by working and learning together). But how does an organization go about accomplishing these? This dilemma—the limits on operationalizing the learning organization concept—renders *The Fifth Discipline* an “unread bestseller,” a book many people own but few have finished.

An attempt to put the learning organization (as Senge views it) to work was published a few years later (Senge, Kleiner, Roberts, Ross, & Smith, 1994). Unfortunately, despite its protestations to the contrary, it is an extension of the theoretical discussion, rather than a tool kit for managers to implement Senge's model. While a second edition of *The Fifth Discipline* was published after 14 years, the *Fieldbook* has not been updated.

There is a real split between theorists' and practitioners' approaches to the learning organization, with theorists offering either ideas or broadly describe methods. Garvin (1994) in particular criticizes scholars for being vague in this area, specifically citing as violators Senge and Nonaka. “Sound idyllic? Desirable? Without question. But does it provide a framework for

action? Hardly. The recommendations are far too abstract, and too many questions remained unanswered.” (p. 19) This sentiment is also shared by King (2001) and others.

By moving away from the organizational learning/learning organization literature, one may find practical techniques for creating an organization responsive to the demands of the knowledge economy.

Knowledge Management

Knowledge management has emerged as a response to technological developments in the workplace (Serban & Luan, 2002). No longer can companies expect to hoard knowledge and prevent their competitors from discovering it and using it. It is the organizations that can learn “in the moment” that can be flexible and responsive enough to compete successfully. Trade secrets are, largely, a thing of the past. Companies must constantly update, innovate, etc. What they know is quickly known by anyone else, so they have to keep moving. Knowledge management helps that by leveraging what is known and moving it around the organization to whomever needs to know and use it (CLMS, 2003, M2CU5).

While there are many models for knowledge management (Alvesson & Karreman, 2001) (Davenport & Prusak, 1998) (van Zolingen, Streumer, & Stooker, 2001) (Alavi & Leidner, 2001), there are some identifiable themes. Knowledge management can measure the intellectual capital of an organization, determining what it does and does not know (Gupta, Iyer, & Aronson, 2000). Knowledge management can also result in “knowledge mapping,” capturing and disseminating what people know (Gupta, Iyer, & Aronson, 2000, 17). With variations from author to author, typical activities include knowledge creation, storage and retrieval, transfer, and application (Alavi & Leidner).

Different from the learning organization, which focuses on describing a utopian ideal, knowledge management offers processes, methods, and tools managers and learning professionals may use to accomplish the goals of a company and create business results (Hatten & Rosenthal, 2001). It allows for the creation and use of knowledge so organizations can compete in the knowledge economy. In practice, knowledge management is blended into other managerial initiatives without concern for theoretical models or the distinctions drawn between it and the learning organization (Hatten & Rosenthal).

A key function of knowledge management mentioned earlier is its ability to facilitate the creation of knowledge “in the moment,” when it is needed. It was Gibbons who suggested “Mode 2” knowledge: knowledge being produced at the point of application--where people “do”—putting increasing pressure on having the right information and knowledge available to “doers” when they need it (CLMS, 2003, M2CU5-10). This is akin to “just in time” techniques used in fields such as inventory management and training, where the required product or solution is identified and implemented when it is needed, rather than purchased and stored for some future use.

Knowledge management has value in transferring knowledge by having it created and re-created in different contexts by different people (King, 2001). This is done by moving the *information*, and allowing its users to turn it into knowledge by using it in a particular workplace context:

“(K)nowledge management characteristically involves an attempt to convert tacit work-related knowledge into explicit codified representations which can then be shared, and further developed, particularly through technological applications.”
(CLMS, 2003, M2CU7-6)

As the quote above implies, however, knowledge management is not limited to technical applications like information management. It contains “softer” elements, like improving the organizational culture and teaching people how to take knowledge rather than passively receive it (CLMS, 2003, M2CU8).

Thus, the distinctions between the learning organization and knowledge management can become blurred, each borrowing from the other. Yet at least one significant difference remains, at least philosophically. The learning organization concept stresses what an organization *is*. The concept of knowledge management stresses what an organization *does*. Which is more valuable? The process of becoming a learning organization can be brought about by implementing knowledge management initiatives. The process of learning can create knowledge. And knowledge is the “thing” that managers can use to make decisions and remain competitive.

The Knowledge Economy

Peter Drucker keyed the terms “knowledge society” and knowledge workers” to portend the rise of the knowledge economy (CLMS, 2003, M2CU5-5).

Consider:

"In an agricultural economy land is the key resource. In an industrial economy, natural resources, such as coal and iron ore, and labour are the main resources. A knowledge economy is one in which knowledge is the key resource." (Houghton & Sheehan, 2000, 1)

While a review of the evolution of our economies is beyond the scope of this paper, it is safe to say that our societies have gone through a significant paradigm shift—away from creating things (through agriculture and industry) towards knowing things (and trading on that knowing). And this paradigm shift has a source:

"The Knowledge Economy is emerging from two defining forces: the rise in knowledge intensity of economic activities, and the increasing globalisation of economic affairs." (Houghton & Sheehan, 2000, 2)

The rapid pace of business affairs, the right-at-hand nature of knowledge—especially about competitors—the need to understand and react to changing environmental conditions and customer expectations, these all contribute to the notion that it is knowledge that is at the crux of business-making today. This is true not only for companies specializing in knowledge, like stock brokers, internet-based businesses, and others, but also for companies engaged in traditional (i.e., “industrial”) affairs such as manufacturing. Having representatives who can think and act “in the moment,” reacting to challenges and changes as they occur is a distinct competitive advantage.

There are other descriptions of the knowledge economy, like this one:

"We define the knowledge economy as production and services based on knowledge-intensive activities that contribute to an accelerated pace of technical and scientific advance, as well as rapid obsolescence." (Powell & Snellman, 2004, 199)

Powell and Snellman focus on the significant difference between the knowledge economy and its predecessors: "The key component of a knowledge economy is a greater reliance on intellectual capabilities than on physical inputs or natural resources" (2004, 201)

In practice, subject-matter experts (who are not experts in learning and knowledge) create and use new knowledge gained in real time while working with clients and other stakeholders (Kritzer, 2008). For a consultant, it is not enough to go to the client’s site and perform requested work. He or she must also be able to learn what else the client needs, consider those needs in terms of the company’s ability to meet them, and then pursue those needs as business

development opportunities. The design engineer does his/her job and returns. The learning expert not only does that, but applies that knowledge and experience to develop new opportunities.

In times past, companies jealously guarded their trade secrets. But today, what a company does well is known readily by its competitors. To stay ahead, a company must shift rapidly to changing conditions and new opportunities. Thus, trade secrets are, largely, a thing of the past. Companies must constantly update, innovate, etc. What they know is quickly known by anyone else, so they have to keep moving. Knowledge management helps that by leveraging what is known and moving it around the organization to whomever needs to know/use it (CLMS, 2003, M2CU5-9).

These conditions have given rise not only to the knowledge economy, but to knowledge management itself. "The rise of KM can be intimately related to a decline of manufacturing industries (particularly in the West) and the corresponding rise of service industries...." (CLMS, 2003, M2CU5-7) And this: "...the ideas related to knowledge management are understood to be more specifically attuned to the post-industrial 'knowledge economy.'" (CLMS, 2003, M2CU5-5)

It is also important to note that the decline of the manufacturing industries (at least, in the Western world), coupled with the corresponding rise of service industries, we consume not just "hardware," but "software," too (CLMS, 2003, M2CU5-5). We are knowledge buyers and sellers, too (Davenport & Prusak, 1998).

The "IS" vs. "DO" Paradigm

Leaders lead. Managers manage. Decision-makers decide. This idea is tautological, certainly. But it lies at the center of the debate between the learning organization approach and the one where knowledge management is used. And it is key to understanding the question that

forms the basis for this paper: which approach is better for organizations to meet the challenges of the knowledge economy?

In order for the organization to meet its objectives in any economy—“knowledge” or otherwise—its leaders must make effective decisions regarding a variety of issues, including how its capital will be invested. Its capital, in this case of generating learning to meet the challenges of the knowledge economy, includes its financial resources and its employees.

The “IS vs. DO” paradigm compares the approach of describing what a learning organization *is* and what it *does*. What it *does* is controlled by management—decision-makers. This paper is unabashedly Tayloristic. Knowledge investments are, for the most part, investments in the organization's success, even if the individual employee gains, too. For example, when an organization agrees to pay employees' college tuition regardless of the field of study pursued by the employee, it is a benefit. When the organization limits tuition paid to studying fields relevant to the employee's duties, it is an investment, even though the employee also benefits. It is a decision made by management to invest in its human capital which, it is hoped, will result in a more capable employee. It is what management *does*.

There are authors who warn about the “top-down” approach to knowledge management and the learning organization, suggesting it can be (or is) a tool used by management to suppress and control the workforce (Driver, 2002) (Kakabadse, Kakabadse, & Kouzmin, 2003). However, this notion seems quaint and archaic given decades of managerial thought to the contrary. From McGregor's Theory X/Theory Y (Hofstede, 1994) to situational leadership (Blanchard, Hersey, & Johnson, 2007), from breaking old rules about strengths and weaknesses (Buckingham & Coffman, 1999) to engaging employees (Wagner & Harter, 2006), there is widespread

recognition of the value in developing and empowering employees over repressing and controlling them.

Therefore, the question of which approach—the learning organization or knowledge management—better equips organizations to compete in the knowledge economy can be answered by asking which approach is better suited for managers to make decisions and implement solutions.

Challenges Implementing the Learning Organization and Knowledge Management

The literature on learning organizations is rife with conceptual information—what a learning organization looks like and should be able to do (Senge, 2006) (Garvin, Edmondson, & Gino, 2008), but precious little on how managers can bring about such results. This provides two schools of thought, one considering the learning organization a metaphor, and another considering it a variable to be implemented (CLMS, 2003, M2CU2-6). It is the latter that is the focus of this paper.

But implementing the learning organization is more difficult than conceiving it. This is true even with Senge, who published a follow-up to *The Fifth Discipline*, a fieldbook which was an attempt to put the learning organization (as Senge views it) to work. Unfortunately, despite its own protestations to the contrary, it is an extension of the theoretical discussion, rather than an effective toolkit for managers to implement Senge's model. It is notable that *The Fifth Discipline* was updated after 14 years, the fieldbook was not. (Senge et al., 1994).

While the learning organization focuses on the “soft” human element, knowledge management is focused on the “hard,” manageable element: knowledge as an object (CLMS, 2003, M2CU5-6). It is this tangible element that, for the manager, leader, or learning professional, differentiates the learning organization from knowledge management.

In practice, the concepts of the learning organization and knowledge management begin to blur. In fact, in order to “operationalize” the learning organization, practitioners have begun to turn to knowledge management methods (CLMS, 2003, M2CU4-8). While learning may take place on an individual and/or organizational level (which describes the learning organization), knowledge management initiatives are launched by people empowered with decision-making authority (Sanchez, 2005). Even Senge noted that the nascent stages of the learning organization remain—they have been “invented,” but not implemented routinely (Senge, 2006, 5). The learning organization provides a model to assess whether or not one’s organization is a learning one (Garvin et al., 2008), but does not provide the means for becoming one. However, organizations that leverage knowledge management methods to create business results may, depending on the definitions or models used, find they have also created learning organizations.

Even if the argument that knowledge management is more tangible and more direct to implement than the learning organization, it is not without its own difficulties. Below is a table listing “3 Myths” of knowledge management (Malhotra, 2000), accompanied by this author’s “3 Realities.”

Malhotra’s 3 Myths About Knowledge Management Technologies	Douglas’ Three Realities About Knowledge Management Technologies
They can deliver the right information to the right person at the right time.	They can deliver information when asked, but it is humans who decide who is the right recipient and the right time.
They can store human intelligence and experience.	They can store information. Human intelligence and experience can turn that information into knowledge.
They can distribute human intelligence.	They can distribute information. Human intelligence and experience can turn that information into knowledge.

This distinction, that it is information that is managed, not knowledge, is a difficult one for managers to grasp, which can lead to outsized expectations and disappointments. The concept will be revisited later in this paper, but one additional point is necessary. Workplace initiatives (like Total Quality Management, 360 Scorecards, and Knowledge Management) are sought by many and understood by few. In that vein, knowledge management is in danger of being perceived as just another managerial fad (Scarborough & Swan, 2001). *It is the contention of this paper that the lack of practical applicability found in the learning organization concept has led to the conclusion that it is passé.* The same fate may await knowledge management if tangible processes are not implemented and useful results are not realized. Knowledge management initiatives can be perceived to be luxuries, not mission-critical (Storey & Barnett, 2000).

Learning Information Management

Knowledge is hard to define, much less manage (Alvesson & Kärreman, 2001). One way to lower expectations—get them to a reasonable level, really—is to strive to manage *information*, not *knowledge* (Tsoukas & Vladimirou, 2001). In the following model, information is moved from node to node, but knowledge is created by employees where they engage the work and other stakeholders (like customers).

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The left side of the graphic reminds the reader about the evolution that takes place from data to results. Raw *data* are tuned into information by placing them in an organizational context, which gives them meaning. *Information* is captured, stored, transferred, and used by the Learning Information System (LIM). Employees use the (explicit) information in the conduct of business, turning into *knowledge* (made up of explicit information and tacit knowledge held by the user). This creates workplace *performance* and, if properly applied, business *results*. The movement and use of information is depicted in the center of the graphic.

On the right side of the graphic, the reader is reminded of several principles appropriate to this approach to learning (knowledge) management:

- *Manage information, not knowledge (King, 2001)*. Knowledge is not a commodity, information is. Information management can help stave off

information overload by storing information, which can be turned into knowledge where and when necessary (Fischer & Ostwald, 2000).

- *Knowledge is information operationalized.* Combine the tacit knowledge the employee already has with the explicit information available and put it to use
- *Knowledge is situated.* It is created and used in the situation facing the employee (Fischer & Ostwald, 2000).
- *Knowledge is personal.* Two or more people can create their own versions of knowledge based on the same information. And it is socialized, with people learning from each other (Alavi & Leidner, 2001) and communicating (Hansen, Nohria, & Tierney, 1999).
- *Tacit knowledge can be transferred through action learning.* The knowledge management process is ongoing, recursive, and circular. It is not sequential, nor does it have a beginning and an ending (McAdam & McReedy, 1999). Learning can be experiential (Gould, 2000). It is important to realize that not only may information be moved throughout the knowledge system, *people* may also be moved to work together on projects and, thus, to learn from each other. "...Explicit knowledge is translated back into tacit knowledge that will then go on to yield yet another innovative solution." (Nonaka, 1991, 96)
- *Knowledge can be retained by retaining people.* Sometimes known as "brain drain," when organizations experience large amounts of personnel turnover, they lose significant amounts of tacit knowledge possessed by their employees, despite efforts to codify and store knowledge to turn it into explicit information.
- *Teach people how to learn.* It is not enough to make information available. Managers need to promote openness and to recognize and retain diversity (Newell, Scarbrough, & Swan, 2001). "Teaching people how to reason about their behavior in new and more effective ways breaks down the defenses that block organizational learning." (Argyris, 1991, 100)

So, information management is the basis for knowledge management (called "Learning Information Management" in the model above). Thus, knowledge management systems taking this approach will not differ greatly from other information technology/management systems (Alavi & Leidner, 2001). Managing information effectively will lead to greater knowledge generation, distribution, and use. This will, in turn, create better business results and make the organization more responsive to the demands of the knowledge economy.

Discussion and Conclusion

In some paradigms, the concepts of the learning organization and knowledge management are separate. A review of the literature reveals that both concepts have many

similarities, a blurring of the two has occurred. One might also say—as this paper argues—that implementing effective knowledge management processes leads to becoming a learning organization. **Whether one uses the term “learning organization” or “knowledge management,”** there are several knowledge economy imperatives that can be met using these principles:

- Citing Senge, Gould notes that companies need to keep abreast of change and innovate (2000).
- Knowledge management can be used to meet the need for companies to be “lean” and right-sized.” (Serban & Luan, 2002, 5)
- There are few real secrets in business—the competition knows what the company knows (Kim & Mauborgne, 1999). Companies need to be able to think and innovate in real time while facing their competition. That means employees need to be able to get information when and where it is needed, and in a fashion that it can be understood and used. Because of rapid technological advances in today’s knowledge economy, companies must share and use knowledge at an organizational level if they are to survive the competition (Chinowsky & Carillo, 2007).
- Information management is not sufficient to create knowledge management (Malhotra, 2000). People—and how they learn and use knowledge—must be considered, too.
- Companies in the future will be driven by information technology, which will demand *knowledgeable users who can transform information into knowledge* (Drucker, 1988). The learning organization provides the overall framework from which knowledge management initiatives are launched and sustained (Sanchez, 2005).
- Knowledge management creates the learning organization when the organization advances from individual learning to organizational learning (Chinowsky & Carillo, 2007).

The demands of the knowledge economy are based upon information, and it requires organizations to learn and use knowledge. Organizational knowledge is created using a variety of knowledge management processes. Successful implementation of these processes makes the organization more likely to meet the demands of the knowledge economy, and may result in it being considered a learning organization. Finally, this from Ikujiro Nonaka: **“In an economy where the only certainty is uncertainty, *the one sure source of lasting competitive advantage is knowledge.*”** (1991, 22) (Emphasis added)

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