Theory Y Leadership in the Knowledge Economy

Towards Tackling the Tacit Knowledge Transfer Enigma

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Abstract

The changing nature of the psychological contract between employer and employee has brought new challenges to leaders of organizations in the knowledge era. A major challenge for leadership now is what form of psychological contract will motivate people to share the knowledge held in the heads of knowledge workers, which is mostly tacit? Related to this is the setting up of an environment in an organization to facilitate knowledge transfer. It has been mentioned that in an age where organizations have become flat, networked and amorphous, leadership is actually distributed according to the circumstances. So setting up effective practices to develop many leaders is also an issue for organizations.
Long before industries caught up with the idea of knowledge as a resource, Universities had been in the business of managing knowledge. They provided an appropriate environment to facilitate creation, sharing and dissemination of knowledge based on collaboration and trust, and public recognition as a currency of exchange for using other people's knowledge. This may lead us to believe that the academic model of leadership is applicable to industry. The general management of academics and staff at the University seems to be catching up with the commercial world these days. Therefore it is futile to look for a new leadership model for the knowledge age in the University governance area. Could mentoring, coaching and the use of reflective practice, used successfully in the supervision of research in the University, provide clues to a model for leadership and leadership development that can be applied in industry in the knowledge age?

Keywords: Knowledge Environment, Knowledge Management, Leadership, Psychological Contract, Tacit Knowledge.

Can Knowledge Work be Managed?

As predicted by Machlup (1962) and Drucker (1968), the term 'knowledge worker' has come to describe most of the modern workforce, and managing the knowledge worker has become a critical issue for organizations. According to Drucker (2003), what the knowledge worker needs to know is 'What is the task?' rather than 'How it is done?' and managing the productivity of the knowledge worker will be the biggest challenge for management in the 21st century. Before we raise issues related to knowledge work we have to come to grips with what constitutes knowledge work.

One way of looking at knowledge work is to consider it as professional work similar to jobs performed by accountants, engineers, doctors and lawyers and, more recently, consultants, software programmers and public relations personnel. Reich (1991) uses the term 'symbolic analysts' to describe the work done by 'knowledge workers' – people who solve, identify and broker problems by manipulating symbols using analytic tools sharpened by experience.

Newell, Robertson, Scarborough and Swan (2002) state that knowledge is simultaneously the input, medium and output of knowledge workers. Their definition is based on knowledge workers being predominantly associated with computers or building innovative products or services. Davenport and Thomas (2002) contend that the term knowledge worker is difficult to define, and we may have to look at different categories of knowledge workers. This seems to indicate that managers have to distinguish between the various types of knowledge workers and manage them differently.

What is the best way to manage/lead knowledge workers? To explore this, one can look at what scholars of general management and leadership say about the appropriate style of management for the information and knowledge age, and also at what some of the knowledge management scholars are proposing about leading knowledge workers.

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Middle Managers Replaced by Brokers?

Von Krogh, Ichijo and Nonaka (2000) propose that to enable knowledge in an organization is to mobilise 'knowledge activists'. Knowledge activists are expected to motivate new projects, create links between projects, and between projects and the vision of the firm. The term 'knowledge champions' has also been used in the context of knowledge management. Wenger, McDermott and Snyder (2002: 214) who have promoted the use of communities of practice as a vehicle for creating, sharing and applying knowledge point out that 'a champion is a senior manager who believes strongly that communities of practice should be the primary mechanism for managing knowledge in an organization'. By their voluntary nature, communities of practice form by self-organized networks and resent command and control (Brown and Gray 2001). But organizations realise the value of communities of practice and are trying to find ways to tap their knowledge for the organization. Newell et. al. (2002), quoting Wenger, suggest the use of knowledge brokers such as boundary spanners, roamers and outposts help communities stay connected and share knowledge.

Does this mean that middle managers, who played a major role in organizations prior to the Information Age, are now being replaced by brokers or champions to facilitate knowledge management in organizations? If so, what is the implication for leaders and managers to manage these brokers?

Hands-Off Management of Knowledge Workers

From a recent book on leadership compiled from the *Leader to Leader Journal* by the Drucker Foundation (Hesselbein and Cohen 2003), the general recommendation from well-known scholars (Drucker 2003a, Handy 2003, Bennis 2003, Wheatley 2003), seems to be that people have to be managed differently in the knowledge society. The principles of management theories used with manual workers, such as scientific management, are not appropriate even though the goal of knowledge management and scientific management is to capture the knowledge held in the 'hands' and 'heads' of workers. The process of capturing the tacit knowledge held in the heads of knowledge workers has to be approached differently.

A range of views have been expressed about what the Leader of the Future should be doing (Hesselbein, Goldsmith and Beckhard 1996):

- Setting examples (Drucker 1996);
- Distributing leadership within organizations (Handy 1996);
- Acting as internal networker who identifies line managers acting as organizational seed carriers (Senge 1996);
- Will emerge rather than being the appointed formal role (Schein 1996);
- Should be credible, and leadership is everyone's business (Kouzes and Posner 1996) and
- Ask to receive feedback and to solicit new ideas rather than to tell others what to do (Goldsmith 1996).

Leadership requires maturity, wisdom and trust argue Korac-Kakabadse, Korac-Kakabadse and Kouzmin (2001). They state that:

- Trust develops when leaders must behave in accordance with the messages they are sending. In other words there must be congruence between their espoused theories and theory-in-practice. (Argyris and Schon 1996).
- Leaders need to apply psychological ideas to be able to nurture and develop others. They should possess interpersonal intelligence, to appropriately handle the moods, temperaments, motives and desires of other people.
- Leaders should also possess intra-personal intelligence to be able to access their own feelings and discriminate among them to guide their own behaviour.
- Leaders must be able to persuade, rather than dominate, other people and be able to 'listen' to the voices.
- Leaders should realise that the nature of psychological contracts has changed in the Knowledge Age, and should now be based on a 'win-win' basis, as job security is a thing of the past. They should be able to build new socio-psychological contracts so that followers will voluntarily move towards common action even in the absence of the leaders driving the organization.

Based on what has been discussed so far, knowledge workers need more freedom, a different psychological contract, direction as to what to do, opportunities to learn and develop, and under certain situations to lead. Leaders need to have an optimistic – Theory 'Y' (McGregor 1960) – perspective of knowledge workers.

Creating the Right Environment for Knowledge Management

A key expectation from leaders of organizations in the knowledge age, is to create the right environment so that exchange of knowledge takes place. This requires the creation of the appropriate structure, establishing a knowledge sharing culture, and providing the resources and technology conducive to managing knowledge.

The knowledge environment comprises physical infrastructure such as people, technology and buildings; and non-physical or *virtual* infrastructure such as leadership, culture, structure, roles, routine,

and practices (Marr 2004). Research by Dilnutt (2000) and Jones (2001), on the knowledge environment elements of organizational structure, organizational culture and technology infrastructure, along with people's perceptions and expectations in the developing knowledge economy, provide a useful overview of the knowledge environment.

An organization's culture is shaped by the beliefs, values, customs, ideologies, philosophies, customs and work practices of the people that form the groups that form the organization; it is the way things are done and the attitudes about why things are done (Dilnutt 2000; Drucker 1993; Jones 2001; Nonaka and Takeuchi 1995). Culture varies between organizations, and between groups within the organizations. According to Drucker (1993) knowledge workers are influenced by two cultures, the culture of the organization in which they work, and the culture of the society in which they live but the organization's task will have more influence on its culture than that of the local or national community.

A knowledge 'friendly' culture is one of trust and collaboration that facilitates knowledge sharing. There must also be sufficient freedom for knowledge workers to take on challenges and advance their competencies. To want to share their knowledge, people need to regard themselves and their knowledge, to be of value to the organization. To share their knowledge and utilise the knowledge of others, knowledge workers need skills in collaboration, combined with a desire for personal growth (Dilnutt 2000; Jones 2001). Innovation requires a culture that tolerates failure (Drucker 1993), and that learns from its mistakes. It also requires a culture that is willing to continually reinvent the organization so it can adapt to the changing external environment (Nonaka and Takeuchi 1995). This requires a cultural predisposition towards challenging the status quo (Prusak 1996).

Bureaucratic organizational structures are seen as an impediment to free knowledge flow, due to their mechanistic and rigid hierarchical nature (Dilnutt 2000; Nonaka and Takeuchi 1995; Senge 1990). Hierarchical structures are often based upon multiple divisions or business units, which may lead to information politics (Davenport, Eccles and Prusak 1992). This occurs where there is an environment of internal competition or a lack of trust between functional groups.

Organic structures, with their characteristic of multiple communication channels, peer-to-peer communication, empowerment, decentralised decision-making and loose or limited control is more conducive to knowledge sharing and innovation (Dilnutt 2000).

The limitations of hierarchical structures can be overcome through the use of cross-functional teams and taskforces (Dilnutt 2000; Nonaka and Takeuchi 1995). Nonaka and Takeuchi (1995) propose an organizational design called a hypertext structure that incorporates both the traditional bureaucratic hierarchy and project oriented task forces, with an organizational knowledge base. The theoretical basis for this structure is that hierarchies are efficient for the acquisition, accumulation and exploitation of knowledge, while the task force is the most effective for knowledge creation. The knowledge base is where the knowledge from the other two layers is re-categorised and re-contextualised. The knowledge base is both physical and meta-physical, in that technology supports explicit knowledge; while corporate vision and culture support and utilise tacit knowledge.

Dilnutt (2000, p. 164-168) found that with respect to structure:

- the absence of formal policies, procedures and processes constrains effective knowledge sharing;
- the quality of knowledge resources available, can be an enabler or inhibitor of effective knowledge management;
- the lack of formal means for measuring the use of and contribution to organizational knowledge is an inhibitor of effective knowledge management; and
- the lack of a structured approach to, and effective recognition of, staff development is an inhibitor to effective knowledge management.

Information technology is relevant to knowledge management for two fundamental reasons. First, information systems are now essential for the storage and retrieval of information and explicit knowledge (Davenport and Prusak 2000). In addition, IT is particularly useful in overcoming the barriers of distance and time affecting some knowledge workers (Nonaka 1991; Ruokonen 2001; Stough, Eom and Buckenmyer 2000), an increasingly important issue due to the impacts of globalisation. The convergence of computing and communications technology now allows people to collaborate and share knowledge and experience with the Internet, intranets, extranets, e-mail and video conferencing (Dilnutt 2000; O'Brien 1999).

Secondly, IT is relevant to this discussion due to its impact on the availability of information and the structure of organizations. Advances in IT have often resulted in reductions in staffing levels which, if not carefully managed, can result in loss of knowledge within organizations. The advent of electronic information systems has had a dramatic impact on the nature and structure of organizations. Information can now flow relatively freely and rapidly both within and between organizations (Dibrell and Miller 2002; Drucker 1993; Frenzel 1999). The balance of power within institutions, and the number of layers of management, have both been

radically changed (Frenzel 1999) resulting in the politics of information.

Although technology is an enabler of knowledge management, it is not the complete answer for solving knowledge management problems. Technology on its own does not create a knowledge sharing mindset; it merely facilitates the activities around sharing knowledge (Dilnutt 2000). An overemphasis on technology can actually inhibit effective knowledge management (Leonard 1998).

From these discussions it is apparent that to create an environment conducive to knowledge management, leaders have to create a culture of trust and collaboration, a structure that works freely across functional silos, or even change the structure to be more organic, and ensure that appropriate supporting technology is made available.

Leading Knowledge Workers

While there is great deal written about management of knowledge workers it is difficult to find literature that deals specifically with the leadership of knowledge workers (except for knowledge-intensive firms). There is even less literature about the changing of the psychological contract in leading knowledge workers.

According to Rousseau and Greller (1994), a psychological contract is defined as the individual's beliefs regarding the terms and conditions of an exchange agreement between that person and another party. A balanced psychological contract is a pre-requisite for an on-going and harmonious relationship between an employee and the organization. The "balance" of the psychological contract is largely dependent on two conditions. First, the balance depends on the degree to which employees' expectations of what the organization will provide, and what is owed in return, match the organization's expectations of what it will give and get (Sims, 1994) - labelled as "reciprocal expectancy". Second, the balance of the psychological contract depends on whether or not there is agreement on what is actually to be exchanged between the employee and the organization (Korac-Kakabadse and Korac-Kakabadse, 1998).

To get a clearer picture, let us consider some views by scholars about managing knowledge workers.

Interestingly, some suggestions made to manage knowledge workers have been traced to a management classic *The Functions of the Executive* (Barnard 1938), written by a practitioner - Chester Barnard. Gehani (2002) evaluates the relevance of Barnard's Executive to the knowledge-based firm. In proposing a theory of authority Barnard (1938:169) discusses the 'zone of indifference'. A person (worker) will follow the orders within this zone, with the zone being broader or narrower, depending on inducements exceeding the burdens and sacrifices that the person is willing to put up with to be part of the organization. The concept of the zone of indifference is probably close to the concept of a psychological contract. Barnard encouraged open cooperative systems in organizations, quite similar to what current scholars in knowledge management are suggesting, as a way to manage the knowledge-based firm. Pasternak and Viscio (1998) who propose a model of the 'centreless corporation' for the modern organization also propose a cooperative model of leadership and identify leaders in General Electric and Hewlett-Packard who have successfully achieved this.

In an address at the Massachussets Institute of Technology, Barnard also advocated that executives need to develop their own skills, knowledge and judgement to be able to manage workers. This also matches current opinion that the executives themselves are to be involved in the creation of knowledge, in addition to leading knowledge workers. This view is certainly different from the roles of executives in the past, where they were expected to formulate a vision and then articulate it and let others carry out their vision. The role of the executive is becoming closer to that of a captain of a sports team, where the captain also has to be adept in playing the game to retain a place in the team.

Handy (1989) proposes that in knowledge-based organizations, which he refers to as Triple I organizations, everyone in the core of the 'shamrock' organization has to be a manager, but no one can afford to be only a manager. This also seems to resonate with others who feel that the modern manager is a 'working' manager and the modern organization is flatter, distributed and networked and uses very few 'permanent workers'.

Davenport and Prusak (2003) use the term 'idea practitioners' to distinguish people who provide creative ideas to a firm. As per Davenport and Prusak (2003) leaders have to recruit, nourish and reward people with ideas. Leaders should also encourage ideas, decide how aggressively the firm will pursue good ideas, set boundaries (out-of-bounds markers) for exploring ideas, and work with practitioners to turn ideas into reality. Once ideas have been accepted, the leaders have to facilitate the change required for their adoption. The leader's role described by Davenport and Prusak, resembles the role of a 'mentor'.

Some empirical research has been carried out to ascertain the role of leaders in the knowledge economy. Politis (2001: 362) who investigated the various leadership styles that are useful for knowledge management, came to the conclusion that self-management, transformational and transactional leadership styles are positively related to knowledge acquisition, but consideration leadership (the extent to which a person has job relationships characterised by mutual trust and respect for subordinates' ideas and feelings) was not.

Ribiére and Sitar (2003) have argued that leaders play a critical role in setting up a knowledge-supporting culture. They state that organizational culture is a major impediment to knowledge activities, and leaders should model proper behaviours for knowledge sharing to take place. Leaders should recruit the right knowledge workers, motivate them to share and use knowledge, create a learning and trusting environment, reward knowledge sharing behaviours, devote time to knowledge activities and issues, and walk the knowledge management talk.

The discussion so far indicates that there are some shared views about future leaders and leaders of knowledge workers.

Attributes Required to Lead Knowledge Workers

Although many of the views expressed by scholars about leadership and knowledge management make good sense, there is still lack of empirical evidence on whether these will actually work in practice. Some ideas clash, leaving us wondering what to do. We do not want to follow the path of 'business process reengineering', and propose knowledge management as a means to radically transform the organization, losing valuable knowledge, and credibility, in the process.

The general view of adopting knowledge management, which we advocate to MBA students at Southern Cross University, is to look at knowledge management as akin to continuous improvement, by auditing what knowledge processes already exist, and what gaps we need to fill to become a knowledge management organization, in line with the organization's strategies (Zack 1999). Hence, it makes sense to ask leaders to gradually adopt new ways of leading so that they can become better at managing knowledge workers.

Table 1 consolidates the various ideas that have been explored in this paper, to see if we can make some suggestions for leaders.

Table 1

A Theory 'Y' Leadership for Knowledge Management © (compiled by authors from the literature)

Summary of Attributes Required by Leaders in the Knowledge Economy	
Attributes of Knowledge Workers	**Managing Knowledge Workers**
▪ Like professionals ▪ Symbolic analysts ▪ Work predominantly with computers ▪ Build innovative products/services ▪ Need to be segmented according to their roles	▪ Mobilise knowledge activists/knowledge champions ▪ Encourage formation of communities of practice/networking ▪ Manage through brokers who will replace middle managers
Leaders of the Future	Leading Knowledge Workers
▪ Set an example ▪ Distribute leadership ▪ Network ▪ Credible ▪ Seek ideas, not tell ▪ Persuade – do not dominate ▪ Gain trust ▪ Walk the talk ▪ Create new psychological contracts	▪ Manage zone of indifference ▪ Cooperative model ▪ Develop own skills ▪ Be a 'working' manager ▪ Identify and cherish 'idea practitioners' ▪ Encourage good ideas but set boundaries ▪ Facilitate change to adopt ideas ▪ Transactional/Transformational/Self management style ▪ Create a knowledge supporting culture ▪ Develop knowledge workers ▪ Create a learning and trusting environment ▪ Network, but look after your own function
Creating a Knowledge Environment	
▪ Trust and collaboration ▪ Freedom within clear boundaries ▪ Personal growth opportunities ▪ Opportunities to challenge the status quo ▪ Support cross-functional teams ▪ Provide adequate resources ▪ Have formal policies/procedures to share knowledge ▪ Have a structured approach to knowledge management ▪ Measure contribution to sharing knowledge and reward adequately ▪ Provide adequate technology support but do not overemphasise	

The general theme emerging from the matrix is that leaders in the knowledge age should attempt to:

- Guide, but not direct or set boundaries
- Create an appropriate environment – culture-structure-technology
- Encourage collaboration
- Create roles that act as catalysts for knowledge sharing and dissemination
- Put together a new socio-psychological contract to establish a 'win-win' relationship
- Create knowledge by themselves, as well as help others to do so
- Encourage distributed leadership
- Be trustworthy, credible and walk-the-talk
- Develop themselves and provide opportunities for others to learn and develop

If we examine the attributes of the leaders in a knowledge environment, some characteristics of leadership practised at universities and research establishments, where knowledge-related activities have been practised for centuries, could be useful to organizational leaders.

The relationship at universities and research establishments between the established and developing researcher is based on:

1. A healthy balance between the amount of knowledge possessed by the two parties at different points of their relationship.
2. A 'win-win' contract between the parties, with the fruits of research shared through joint activities.
3. Distributed, situational leadership.
4. Use of mentoring, coaching and reflective practice (Schon 1983)
5. Keeping up the relationship even after the student or developing researcher moves from the organization. Sometimes this

becomes a lifetime partnership to create knowledge in specialist areas.

The relationship between the two parties has knowledge sharing, creation and dissemination as the core characteristics of the relationship, which is also the essence of a knowledge-based organization.

Although some evidence would be required to test whether this suggestion succeeds, the authors of the paper feel confident that this suggestion has a fair chance of success due to their extensive experience in adopting coaching, mentoring and reflective practitioner roles in industry and in academia to transfer 'tacit learning'.

One of the authors of the paper (Sankaran 1999), has used 'action learning' in his three-year doctoral study, to develop engineering managers in a large multinational company involved in automation, using a 'reflective practitioner' approach. Although the focus of this research was on 'management learning' and not 'knowledge management', the research was successful in transferring 'tacit knowledge' from an experienced senior manager to the new managers, and trained them to take up leadership roles in their organization where the majority of workers in the engineering operation were knowledge workers. Two authors of this paper have also used 'action learning' in a Swedish multinational firm in Australia to develop future leaders, and have used techniques of 'coaching', 'mentoring' and 'reflective practice' and have observed that 'tacit knowledge' has been successfully transferred through this process.

The transfer of tacit knowledge is a challenging, yet an important task that demands leaders' attention in the knowledge economy. However, an interesting question remains to be answered: 'Can tacit knowledge be managed, or is it simply a case of managing the knowledge environment, to which Barnard alluded?'

Conclusions

It is suggested in this paper, that the current world of work is dominated by what can best be described as a knowledge economy, through what are now called knowledge workers. The identification and transfer of knowledge is a critical component of organizational behaviour, and highlights the need to think about how knowledge might be managed. Inevitably, but often neglected, is the resocialisation that might occur in organizations as a result of new 'methods of production'. As knowledge, knowledge work and knowledge workers evolve, so must leaders. Chester Barnard's prescient prediction that organizational environments and leaders would need to change, may well be correct.

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Paul James has over 32 years experience in asset management, working for a number of electrical distributors in New South Wales, Australia. During this time, he has held a variety of positions in the engineering side of the industry including being the Manager of Asset Operations at Great Southern Energy. More recently, he has been involved with the analysis, development and implementation of information systems required for the support of maintenance management, asset management and network operations. Out of this work, came an interest in knowledge management, due to the suboptimal results achieved from the information systems, and the loss of knowledge in the electricity industry through downsizing. Paul is currently undertaking a Doctorate with Southern Cross University, researching the areas of Strategic Management and Knowledge Management.

Alexander Kouzmin teaches courses in Strategic Management and Critical Issues in Management and supervises PhD/DBA candidates. He has published more than 265 research papers and book chapters. He is a founding Co-editor of Blackwell's international *Journal of Contingencies and Crisis Management*, published quarterly since March 1993. Since 1994, he has been listed with *Who's Who in Australia* and, since 2000, with *The International Who's Who in Management Sciences.*

Stewart Hase is a psychologist with an interest in work, and work and learning. He is fascinated by processes within organizations and particularly by expressions of intrapsychic phenomena and how to use psychotherapeutic methods to address them.