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**Blink or Blinkered? – Developing a Knowledge-Based Approach to Strategy
Formation in Support of CF Transformation**

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ABSTRACT

With the publication of the 2005 Defence Policy Statement, the Canadian Forces has embarked on an ambitious transformation initiative aimed at operational effectiveness, strategic responsiveness and organizational relevance. This initiative is a logical continuation of the 1999 vision, expressed in the Department of National Defence document *Strategy 2020*, that the CF become “an innovative, relevant knowledge-based institution.” However, rather than using strategy formation methodology to develop an implementation strategy for CF transformation, operational campaign planning methodology was employed instead. This approach will not be adequate to the task.

The paper considers the Information Age factors that drove the development of CF transformation concepts. It then examines knowledge theory in order to explore the articulation of a knowledge-based approach to strategy formation that could support CF transformation. Finally, some of the key aspects of this approach are presented.

There are known knowns. These are things we know that we know. There are known unknowns. That is to say, there are things that we know we don't know. But there are also unknown unknowns. There are things we don't know we don't know.
U.S. Secretary of Defence Donald Rumsfeld¹

INTRODUCTION

Blink. In the time it takes to blink an eye, the human mind is capable of analysing an astounding breadth of complex factors, identifying connections and relationships, considering options and determining the best strategy for action. According to journalist Malcolm Gladwell in his very popular treatment of the subject, this phenomenon has occurred throughout the history of mankind, over and over again; and yet this critical human subconscious process is poorly understood and often overruled by “rational” analysis.² How is this possible? To paraphrase Mr. Rumsfeld, is it that we don’t know what we know? Or is our modern fixation on scientific, rational thought processes simply making us overlook our instinctive, “gut feel” reaction, which is more often right than wrong? In other words, do we really know what we know?

“Knowledge is power” – when Sir Francis Bacon first coined that famous term in his *Religious Meditations* in 1597,³ he could not have foreseen how appropriate those words would be in a world 500 years in the future. Alvin Toffler, the renowned futurist of the late 20th century, wrote as early as 1970 in *Future Shock* that knowledge was the “fuel” of the new Information Age, a rich mixture that would accelerate change to

¹ BrainyQuote, “Donald Rumsfeld Quotes,” <http://www.brainyquote.com/quotes/quotes/d/donaldrums148142.html>; Internet; accessed 11 March 2006.

² Malcolm Gladwell, *Blink: The Power of Thinking Without Thinking* (New York: Little, Brown and Company, 2005), 12-13.

³ The Quotations Page, “Quotations by Author: Sir Francis Bacon,” <http://www.quotationspage.com/quote/2060.html>; Internet; accessed 11 March 2006.

unprecedented speed.⁴ Indeed, in recent decades the emergence of the “knowledge economy” of information-based services seems to have validated Toffler’s predictions. As the world adapted to these transformational changes, a growing interest in the role of knowledge led to the development of the field of knowledge management (KM), a new concept that rapidly spread throughout the 1990s and into the new millennium.

At the same time as the corporate forces of the business world were trying to adapt to the new dynamics of the knowledge economy, western military forces, including the Canadian Forces (CF), were coming to grips with the new dynamics of the post-Cold War era. Demands for a “peace dividend” were driving the largest demobilization effort since the end of the Second World War; the asymmetric challenge of non-state actors and warlord militias replaced the monolithic menace of the Warsaw Pact; the “revolution in military affairs” (RMA) replaced manpower intensive, analog processes with network-enabled, automated, digital systems; and efficiency and productivity imperatives forced best business practices (and bad business buzzwords) into traditional military cultures. All of these developments combined to create a chaotic and confusing environment that triggered transformational change in many militaries at about the same time, including the CF.

By the end of the 20th century, new ideas were beginning to take hold in Canada’s Department of National Defence (DND). According to a former Director General of Strategic Planning, the publication of *Shaping the Future of the Canadian Forces: A Strategy for 2020* in 1999 was a key indicator of the intent of the organization to grapple

⁴ Alvin Toffler, *Future Shock* (New York: Random House, 1970), 29.

with the realities of the coming millennium.⁵ In addition to embracing the concepts of RMA and capability-based planning, the document introduced the concept of KM and articulated a desire for the CF to become “an innovative, relevant knowledge-based institution.”⁶ This goal was echoed in the 2002 army strategy document *Advancing with Purpose*, which did not provide a precise definition of a “knowledge-based” institution but emphasized the importance of KM to success on the future battlefield.⁷ A belief in the importance of knowledge was taking hold in DND, but did the CF really grasp what KM was all about?

The process of CF transformation that began with *Strategy 2020* was fundamentally redirected in 2005 with the publication of the Defence Policy Statement (DPS) *A Role of Pride and Influence in the World – Defence*, which formed a part of the overarching International Policy Statement. DPS 2005 articulated several new capabilities and transformational objectives for the CF, not the least of which was organizational and cultural change.⁸ This led to the creation of a CF Transformation Team to “kick-start” the transformation process by accelerating the most immediate structural changes called for in the new policy. Nevertheless, despite the most direct leadership from the highest level, an overall strategy for the implementation of the

⁵ Lieutenant-General K.R. Pennie, “Strategic Thinking in Defence,” *Canadian Military Journal* 2, no. 3 (Autumn 2001): 22.

⁶ Department of National Defence,

transformation was not developed.⁹ On the other hand, detailed plans were produced, based mainly on military operational methodology known as campaign planning.

A clearly articulated strategy is essential to successful organizational transformation. General (retired) Gordon R. Sullivan, former Chief of Staff of the U.S. Army and co-author of the acclaimed *Hope is Not a Method*, equated strategy to the bridge that spans the gap between current reality and future vision.¹⁰ Built on a bedrock of solid organizational values, Sullivan wrote that “strategy is an intellectual construct linking where you are today with where you want to be tomorrow in a substantive, concrete manner.”¹¹ This understanding is immensely important and useful because it links the concept of strategy-making to the concept of knowledge (strategy is an *intellectual construct*).

This paper will argue that if the CF is to transform successfully to a knowledge-based institution, it requires a well-defined and articulated strategy that incorporates knowledge creation and sharing concepts, formed and executed by leaders who are able to innovate and improvise. Some experts have suggested that knowledge in itself provides the basis for a new theory of strategy. This paper will explore that possibility in the process of examining approaches to strategy formation and determining the most effective way to integrate knowledge concepts into an effective strategy for CF transformation. Starting with an examination of the environment that led up to the latest CF transformation initiative, the paper will go on to consider the development of KM

⁹ Mr. Steve Hallihan, Director General Strategic Change, and Lieutenant-Colonel Chris Blodgett, Director of Knowledge Management, interview with author, 17 February 2006.

¹⁰ Gordon R. Sullivan and Michael V. Harper, *Hope is Not a Method: What Business Leaders Can Learn From America's Army* (New York: Random House, 1996): 99.

¹¹ *Ibid.*, 98.

theory and the impact these concepts had on the evolution of thinking within DND. The subject of strategy formation will then be examined in order to develop an understanding of how knowledge is integrated into strategy-making in the modern context. Finally, the critical role of the strategist will be discussed, with a view to proposing an approach to strategy formation for CF transformation.

GETTING OFF THE TREADMILL: DND AND THE PARADOX OF ACTION¹²

The dramatic economic and social impacts caused by widespread dissemination of information technology were accurately predicted by futurists, scientists and authors of speculative fiction starting as early as the 1960s. In most of this body of predictive writing, the importance of human knowledge as a driving force of change was widely recognized. Nevertheless, few organizations heeded these warnings, and as a result many were overcome by the sheer breadth and speed of change when it eventually became obvious to all concerned in the 1980s and 1990s.

Alvin and Heidi Toffler, identified as two of the most influential futurists of the later 20th century, greatly affected popular thinking on the importance of knowledge as a fundamental of the Information Age.¹³ From 1970 to 1990, they worked on a collection of books that were to have a profound impact on how people viewed the changes that dominated the end of the 20th century and the beginning of the 21st. *Future Shock* (1970), *The Third Wave* (1980), and *Powershift* (1990) formed, according to Alvin Toffler, a coherent trilogy that considered the accelerating social changes facing the world through three “lenses”: *Future Shock* looked at the process of change; *Third Wave* examined the

¹² Full acknowledgement for these thoughts go to Sullivan, *Hope is Not a Method*, 24-26.

¹³ James C. Bennett, review of *The Toffler Trilogy*, by Alvin Toffler, *The Information Management Journal* (April 1999), 52.

direction of change; and finally *Powershift* dealt with the control of change.¹⁴ All three books were immensely popular in their day, and several examples of Toffler jargon, like “adhocracy” and “de-massification,” have entered the modern lexicon. Perhaps even more relevant to the subject at hand, the Tofflers followed up their literary success in 1993 with *War and Anti-War*, which applied the same concepts to the military environment and considered the impact of knowledge and its expression in the form of RMA as yet another symptom of the titanic social changes being experienced around the globe.¹⁵

Looking back with admittedly twenty-twenty hindsight, it is hard to understand why everyone did not heed these dire predictions. By the time *Powershift* was published in 1990, the Tofflers were becoming almost frantic in their efforts to convince the world that the third tidal wave of social change had truly arrived. They identified the emerging knowledge economy as “an explosive new force,”¹⁶ with knowledge as the key element of power. Such portents as “we stand at the edge of the deepest powershift in human history”¹⁷ could not have been expressed in more direct or ominous language. Indeed, going one further on good old Sir Francis Bacon, they coined the term “knowledge is power is knowledge”¹⁸ to emphasize the importance of knowledge in both the determination of power and the expression of power in the new economy. In *War and*

¹⁴ Alvin Toffler, *Powershift: Knowledge, Wealth, and Violence at the Edge of the 21st Century* (New York: Bantam Books, 1990): xix.

¹⁵ Alvin and Heidi Toffler, *War and Anti-War: Survival at the Dawn of the 21st Century* (Boston: Little, Brown and Company, 1993).

¹⁶ *Ibid.*, 10.

¹⁷ *Ibid.*, 11.

¹⁸ *Ibid.*, 178.

Anti-War, this concept was best summarized in the phrase “Knowledge is the ultimate substitute for other resources.”¹⁹

Of course, the Tofflers were not the only ones by any means to be expressing these notions, although their works were perhaps more readable than most. The esteemed Israeli military historian, Martin van Creveld, likewise identified the coming power shift that would fundamentally change the very nature of war as it had been characterized by Clausewitz’ “Trinitarian” relationship of the government (or state), the army (or military) and the people. Van Creveld recognized a number of social factors – similar to those identified by Toffler – that would likely bring an end to conventional war and would give rise to ever-increasing low-intensity conflicts waged by non-state actors.²⁰ Likewise, he also recognized the dramatic impact of knowledge on the diffusion of cheap and easily accessible information technologies – a phenomenon that drove Toffler to observe, “Knowledge is the most democratic source of power.”²¹

Management guru Peter Drucker became another prophet of the knowledge movement. In his 1993 book *Post-Capitalist Society*, he identified three distinct social revolutions (somewhat like Toffler’s three waves) that led to the “shift to knowledge” – the Industrial Revolution, the Productivity Revolution, and the Management Revolution.²² The final revolution, he wrote, had arrived as a result of the advent of the Knowledge Society:

That knowledge has become *the* resource, rather than *a* resource, is what makes our society “post-capitalist.” This fact changes – fundamentally – the structure of

¹⁹ Alvin and Heidi Toffler, *War and Anti-War*, 147.

²⁰ Martin van Creveld, *The Transformation of War* (New York: The Free Press, 1991), 194-223.

²¹ Toffler, *Powershift*, 20.

²² Peter F. Drucker, *Post-Capitalist Society* (New York: Harper Collins, 1993), 45.

society. It creates new social and economic dynamics. It creates new politics.
(author's italics)²³

Some got the message. Coming out of the dark years that followed its ignominious defeat in the rice paddies of Vietnam, the US Army embarked in the 1980s on a path of transformation that would bring it to decisive success in the first Gulf War of 1991. Impressed by the ideas of the Tofflers and other futurists,²⁴ the US Army commenced a dramatic technological, organizational and cultural transformation that was aimed at embracing the changes described in the Toffler trilogy. That transformation continued on into the 1990s and (some would say) continues today.

In an effort to explain the success of this incredible accomplishment, in 1996 former Chief of Staff of the US Army, General Gordon R. Sullivan, co-authored the profoundly influential book *Hope is Not a Method*. The wide popularity of Sullivan's book (it became a New York Times bestseller) was undoubtedly due in some part to its no-nonsense, plain language approach to the very complex subject of organizational transformation. With the expressed intent of offering advice and lessons to business leaders, Sullivan built his work around eleven basic rules for guiding change.²⁵ With this simple, hands-on style and with a host of practical examples, Sullivan succeeded in writing a text that was both highly readable and highly practical – so much so that it became required reading for senior members of the Land Staff²⁶ in the late 1990s.

One of the primary characteristics of Sullivan's book was its stress on human factors – the primacy of leadership, the importance of knowledge, and the role of culture.

²³ *Ibid.*

²⁴ According to the story told by the Tofflers themselves in *War and Anti-War*, 9-12.

²⁵ See Sullivan, *Hope is Not a Method*, 236-239.

To Sullivan, transformation was not simply a planning exercise solely focused on pure analysis and executed in a clinical fashion. He saw transformation as a “human drama” that demanded strong leadership, understanding and compassion from executives.²⁷ One of the key responsibilities of leaders was to create an environment that welcomed change and “continuous transformation.” Moreover, Sullivan stressed the importance of these human factors in the creation of a learning organization which could both adapt to its surroundings and add to its capacity for creativity by systematically incorporating and interpreting collective experience.²⁸ Fundamentally, Sullivan was able to demonstrate how strategy based on knowledge in the Information Age environment provided the flexible strategic approach that was essential for the US Army to find its way out of its darkest days and on to decisive victory. For this reason, in addition to his eleven basic rules, he added a twelfth imperative that superseded all others – the need to “take time to reflect, to put events into perspective.”²⁹ For any military audience, it was a compelling story.

At the same time, the need to come to grips with the profound changes of the later 20th century was becoming so obvious that even government bureaucracies could not ignore it. Accordingly, after wide consultation with stakeholders, and following “a classical procedure of strategy formulation,”³⁰ the leadership of DND agreed by consensus on a strategic framework for transformation in the new millennium. By this process, the document *Strategy 2020* reflected the thoughts, attitudes and culture of the

²⁶ After the reorganization of the Department of National Defence in the mid-1990s, the staff of Mobile Command, which had evolved into the headquarters of Canada’s deployable land forces, was moved to Ottawa and became known as the Land Staff.

²⁷ *Ibid.*, 164-166.

²⁸ *Ibid.*, 193-194.

²⁹ *Ibid.*, 239.

organization as a whole, including both military and civilian components. The collective leadership of DND developed a vision for the CF that read as follows:

The Defence Team will generate, employ and sustain high-quality, combat-capable, inter-operable and rapidly deployable task-tailored forces. We will exploit leading-edge doctrine and technologies to accomplish our domestic and international roles in the battlespace of the 21st century and be recognized, both at home and abroad, as ***an innovative, relevant knowledge-based institution***. With transformational leadership and coherent management, we will build upon our proud heritage in pursuit of clear strategic objectives.³¹ (emphasis added)

Was this a recognition of the importance of knowledge in the Information Age? Was DND and the CF really committed to becoming a “knowledge-based” institution? A cursory review of the document would have led one to believe so. Indeed, the defence leadership went so far as to proclaim that, “we must focus upon teamwork, intellectual capital, knowledge management and innovation in order to sustain the organizational experience, culture and excellence essential to operational effectiveness.”³² Despite the high hopes raised by this vision of the future, actions in the following years demonstrated that the organization as a whole lacked both the understanding and the will to achieve its goals. Rather than being adopted as a key component of strategy-making and strategic planning, knowledge was viewed simply as either a subset of information management or as a product of professional development.

For example, in the years following the development of *Strategy 2020*, a number of subordinate strategies were developed in order to amplify the detail and provide greater focus at lower levels. Two of these documents were the army strategy, *Advancing with Purpose*, and the personnel strategy, *Military HR Strategy 2020: Facing the People*

³⁰ Pennie, “Strategic Thinking in Defence,” 23.

³¹ DND, *Strategy 2020*, 7.

³² *Ibid.*, 8.

Challenges of the Future. Both documents echoed the knowledge goals set out in *Strategy 2020*, but neither fully incorporated knowledge as key driver of change. On the one hand, the Chief of the Land Staff envisioned the army becoming “a knowledge-based and command-centric institution capable of continuous adaptation and task tailoring across the spectrum of conflict.”³³ While not specifically defining what a knowledge-based institution might be, the army strategy nevertheless emphasized the critical importance of knowledge management as a key to success on the future battlefield, but only in the context of improved information technology and “the conversion of data into knowledge that will better support decision-making by commanders.”³⁴ At the same time, the Military Human Resources Group had developed a strategy that was replete with references to the importance of knowledge, but only within the context of professional development. It acknowledged that “Knowledge, know-how and the innovative ability of individual members provide the basis of continuous improvement within the organization,”³⁵ but failed to make the connection with the overall, collective intellectual capital of the organization and the need to create an environment that would promote knowledge sharing and generation. Moreover, while recognizing the dramatic impact of technology and globalization³⁶ – as one author suggested at the time, “all the things you’d have to have been in a coma to have missed”³⁷ – *HR 2020* neglected to follow up with the logical deduction that the “radical organization change” that it foresaw would demand a fresh approach to strategic thought, with knowledge as a key element.

³³ DND, *Advancing with Purpose*, 13.

³⁴ *Ibid.*, 31.

³⁵ Department of National Defence, *Military HR Strategy 2020: Facing the People Challenges of the Future* (Ottawa: DND Canada, 2002), 5.

³⁶ *Ibid.*, 12.

³⁷ Frances Horibe, “The Most Dangerous Gap,” *CMA Management* 76, no. 1 (March 2002): 48.

In essence, while DND appeared to be “talking the talk” on KM, it was not “walking the walk.”

In 2002, the same year that these strategies were being published, DND appeared to be making great strides to implement a knowledge strategy to support the vision for 2020. In that year, the department held a major symposium to explore the full breadth of KM and its relationship to defence. Unfortunately, DND was experiencing what Sullivan identified as the “paradox of action,” meaning that the organization was “doing the wrong things better and better.”³⁸ Just as it was launching on the strategic realignment necessary to realize its 20 year vision of development, the degree of uncertainty of the strategic environment increased almost exponentially with the events and the aftermath of 9/11. Essentially, the initial enthusiasm and drive for transformation became bogged down in the quagmire of ongoing operational demands and bureaucratic procedure. As the Chief of the Defence Staff summarized in his annual report for 2001-2002, “while our strategy for the future is sound, the status quo is not sustainable. Operational and personnel tempo remain high, we face significant recruiting and retention challenges, we are carrying a significant amount of aging infrastructure, and we need to modernize equipment and capabilities in key areas.”³⁹ Despite working harder and harder, progress was slowing; and the organization was “at a crossroads.”

A more optimistic viewpoint was presented in the following year’s CDS report *A Time for Transformation*. The departmental budget had been stabilized by an infusion of new cash; and while the 2002 report had focused on the post-9/11 operational demands,

³⁸ Sullivan, *Hope is Not a Method*, 25.

³⁹ Department of National Defence, *At a Crossroads: Annual Report of the Chief of the Defence Staff 2001-2002* (Ottawa: DND Canada, 2002), ii.

the 2003 report returned to the transformation theme, with a renewed emphasis on leadership in a network-enabled environment. The CDS reiterated that, “transformation itself is not only about technology. It is about changing human, organizational and warfighting behaviour.”⁴⁰ Nevertheless, with the invasion of Iraq and the significant demand of the operational deployment to Afghanistan, the tone of the leadership shifted once more, so much so that the 2004 CDS report, entitled *Making Choices*, was filled with equivocations and reflections of an uncertain future that included the unknown outcome of a major policy review.

In reality, the department lacked the strategic approach necessary to deal with this new and uncertain future. The “classical procedure of strategy formulation” used to develop *Strategy 2020* and its supporting strategies proved to be too inflexible and unresponsive to keep up with the rapid changes of the first years of the new millennium. Using an Industrial Age approach based on detailed analysis and bureaucratic process, DND was trapped on Sullivan’s “paradox of action” treadmill, producing ponderous plans that were almost immediately irrelevant and obsolete. Sullivan called this trap “Making Yesterday Perfect.” As he described it, “Making Yesterday Perfect is a particularly treacherous type of resistance to change within an organization because it is so easy to appear to be engaged in making changes.”⁴¹ Consequently, when the policy review of 2004-2005 was finally completed and a new defence policy was issued, the department lacked an adequate approach to be able to formulate and articulate an effective implementation strategy.

⁴⁰ Department of National Defence, *A Time for Transformation: Annual Report of the Chief of the Defence Staff 2002-2003* (Ottawa: DND Canada, 2003), II.

⁴¹ Sullivan, *Hope is Not a Method*, 32.

Many have criticized DPS 2005 as being more strategy than policy.⁴² Certainly, the details on capability development targets that make up a large part of the document would suggest that there is some basis for this criticism. In many ways, the DPS relates ends, ways and means in a classic strategic construct. This should not be surprising, given that the driving force behind the document was the very top echelons of the military-civilian leadership of the department. However, despite providing “the intellectual framework required to guide and shape the Canadian Forces to face the defence and security challenges of the 21st century,”⁴³ as a strategy the document stops well short of providing the direction necessary to successfully implement the new vision for the CF. Following the publication of the DPS in April 2005, the CDS established a Canadian Forces Transformation Team to develop courses of action for the implementation of CF transformation. This included the publication of a planning guidance document in October 2005.⁴⁴ Interestingly enough, rather than taking a strategic approach to this endeavour, the team was told to use operational planning methodology, including a modified form of military campaign planning, to develop an initial implementation concept.⁴⁵ While undoubtedly being more responsive and adaptable than the classic, consultative and consensual approach used for *Strategy 2020*, this operational approach has not been entirely successful at producing an effective strategy either. Operational planning processes applied at the strategic level for organizational transformation are generally inadequate because they tend to be focused on an

⁴² As a member of the DPS 2005 writing team, the author has relied on personal knowledge and experience to related reactions to the document.

⁴³ See the Message from the Minister in DND, *DPS 2005*.

⁴⁴ General R.J. Hillier, *CDS Planning Guidance – CF Transformation* (National Defence Headquarters Ottawa: file 1950-9 (CT), October 2005).

identifiable enemy, they get wrapped up in linear concepts such as decisive points and lines of operation, and they are too rigid to allow for truly innovative thinking.

Consequently, this planning approach has failed to provide the broad corporate guidance and direction necessary to coordinate action across DND and other government departments, and it has left many parts of the organization disenfranchised.⁴⁶

Is there a better way? Many have suggested that there are ways to better integrate knowledge concepts into strategy-making approaches in order to create a more effective, adaptable and relevant framework for planning and action. To study these alternatives, one must find the answers to two simple questions: what is knowledge, and what is strategy? More importantly, these questions must be answered in the context of organizational transformation in order to determine a better alternative to strategy formation that will meet the needs of DND and the CF.

KNOWLEDGE THIS, KNOWLEDGE THAT, AND MORE KNOWLEDGE WORDS

Knowledge; knowledge management; explicit, tacit and formative knowledge; knowledge champion; knowledge worker; knowledge inventory; knowledge strategy; knowledge-based view of the firm – the list of knowledge concepts that dominate business literature today is daunting for any novice. Nevertheless, despite what some may wish to think, this is not some kind of new fad. From Sun-Tzu and Confucius to Bill Gates and Donald Rumsfeld, the interest in the role of knowledge in human affairs has

⁴⁵ Department of National Defence, *CF Transformation Team Created/CDS Action Team Update* (CANFORGEN 098/05 CDS 045/05 301137Z MAY 05), 1.

⁴⁶ The campaign planning approach has relied on a small team of planners, ignoring the more traditional, matrix approach to strategy development, that includes a broader participation of the entire staff. Hallihan and Blodgett interview, 17 February 2006.

been a constant throughout history. But what does it all mean? And how can it help the CF to transform?

To begin with, what is knowledge? To some like Alvin Toffler, it is an all-bracing concept that includes that specific 003c01w6614.676

While arguably more of a description than a definition, DKM has managed to capture many of the more important knowledge concepts in this one passage: that it is a human attribute (as opposed to the information stored in a machine); that it can be acquired in a number of ways to a varying level of assuredness; that it is contextual; that it is linked to both information and understanding; and, most importantly, that it is at least partially intuitive (we do not necessarily know what we know) and therefore hard to measure.

It is important to understand that the knowledge movement has generally agreed that there are two types of knowledge: explicit and tacit. As Eisenhardt and Santos point out in their excellent analysis of knowledge as a basis for strategy, this distinction goes back to the ground-breaking work of the Hungarian scientist Michael Polanyi in the 1960s,⁵¹ who theorized that there was more to scientific reason than purely logical, rational “explicit” knowledge – that in the subconscious a much greater body of “tacit” knowledge was at work, applying intuitive value judgments to scientific deductions.⁵² In essence, man knows much more than he can express.⁵³ While explicit knowledge (what we know we know) can be relatively easily recorded and shared, it is much harder to capture tacit knowledge. Indeed, because of the expansive and elusive nature of tacit knowledge, some have come to the conclusion that it is impossible to manage knowledge at all.⁵⁴ To further complicate the issue, at least one team of experts from Japan has

⁵¹ Kathleen M. Eisenhardt and Filipe M. Santos, “Knowledge-Based View: A New Theory of Strategy?” In *Handbook of Strategy and Management*, edited by Andrew Pettigrew, Howard Thomas, and Richard Whittington, 139-164 (London: SAGE Publications, 2002), 140.

⁵² M. K. Smith, “Michael Polanyi and tacit knowledge,” *The Encyclopedia of Informal Education*, www.infed.org/thinkers/polanyi.htm. Last updated: June 4, 2005; Internet; accessed April 1, 2006.

⁵³ *Ibid.*

⁵⁴ Takuma Takahashi and Donna Vandenbrink, “Formative knowledge: from knowledge dichotomy to knowledge geography – knowledge management transformed by the ubiquitous information society,” *Journal of Knowledge Management* 8, no. 1 (2004): 65.

suggested that a third category of knowledge exists – formative knowledge.⁵⁵ The concept of formative knowledge suggests an evolutionary step between tacit and explicit knowledge, in which unrelated bits of knowledge transition from tacit to explicit states as a result of widespread, random sharing across a broad community of networked actors – a “community of practice.” While useful as a model for considering how tacit knowledge evolves to an explicit state, the concept of formative knowledge is not yet widely accepted outside of Japan. Therefore, for the purposes of this paper, we will concentrate on Polanyi’s original dichotomy.

With the increasing understanding of the importance of knowledge in the Information Age that developed throughout the late decades of the 20th century, the KM discipline emerged as a major force in the business management field in the 1990s. Based on organizational learning theory that has its origins as far back as the 1950s, KM has grown into an extremely influential and often controversial area of study, involving everything from psychology and sociology to economics and management theory.⁵⁶

DKM defines KM as:

“an integrated systematic approach which, when applied to an organization, enables the optimal use of timely, accurate and relevant information; it also facilitates knowledge discovery and innovation, fosters the development of a learning organization and enhances understanding by integrating all sources of information, as well as individual and collective knowledge and experience.”⁵⁷

Once again, while more descriptive than definitive, this explanation provides a number of useful clues for the neophyte. Firstly, KM involves both information and knowledge, recognizing the cognitive interface between the two. KM is concerned with fostering

⁵⁵ *Ibid.*, 65-66.

⁵⁶ Eisenhardt and Santos, “Knowledge-Based View,” 141-142.

⁵⁷ Blodgett *et al.*, “Mobilizing Knowledge,” 5.

discovery and innovation, and it is inclusive rather than exclusive in terms of categories of sources of information and knowledge. Finally, it includes both the individual level and the collective. Clearly, KM is a broad field of study with an ever-broadening hold over the thinking of the corporate world.

In addition, one should not fall into the error of thinking that KM is only focused on static knowledge. In fact, there is more literature today on the movement and sharing of knowledge than on its characteristics. An increasing number of experts consider KM to be more about the process of learning, knowing and forgetting than about the actual knowledge itself.⁵⁸ This group of theorists focus on social interactions and the movement of knowledge between groups and organizations. This is a very transactional approach that considers the complexity of the context to be as important as the knowledge being transferred.⁵⁹ The concept of context is significant in that it has given rise to developments such as communities of practice and a deeper understanding of the mechanics of knowledge transfer. For example, one study has shown that in fact transfer of tacit knowledge is more likely when there are weaker ties (i.e. less of a relationship) between the actors than when there are stronger ties. The authors of the study suggest that this is based on a human characteristic that prevents us from readily admitting weakness (or lack of knowledge) to someone we know as opposed to someone we do not know.⁶⁰ It is these sorts of studies that have begun to shed light on the whole phenomenon of knowledge sharing within and between organizations.

⁵⁸ Eisenhardt and Santos, "Knowledge-Based View," 141.

⁵⁹ See Paul R. Carlile, "Transferring, Translating and Transforming: An Integrative Framework for Managing Knowledge Across Boundaries," *Organization Science* 15, no. 5 (September – October 2004): 556-557.

⁶⁰ Daniel Z. Levin and Rob Cross, "The Strength of Weak Ties You Can Trust: The Mediating Role of Trust in Effective Knowledge Transfer," *Management Science* 50, no. 11 (November 2004): 1485-1486..

So KM is important, but how important? And is it important to the military? Bill Gates, arguably the richest man in the world and the founder of Microsoft, has some interesting things to say about KM. In his book *Business @ the Speed of Thought*, he wrote:

“As a general concept – to gather and organize information, disseminate the information to the people who need it, and constantly refine the information through analysis and collaboration – knowledge management is useful. But like reengineering before it, knowledge management has become infused with almost any meaning somebody wants to associate with it.”⁶¹

As a practical businessman with a genius for innovation, Gates was wary of management fads that did not add value to the organization. Therefore his thoughts are revealing, particularly coming from such a distinguished member of the information technology community. In the same book he went on to say:

“Knowledge management doesn’t even start with technology. Its starts with business objectives and processes and a recognition of the need to share information. Knowledge management is nothing more than managing information flow, getting the right information to the people who need it so that they can act on it quickly. And knowledge management is a means, not an end. The end is to increase institutional intelligence, or corporate IQ.”⁶²

Again, this passage is important for several reasons: it clearly separates KM from information technology;⁶³ it firmly puts the whole concept of KM into the context of human and business needs; and therefore it emphasizes that KM is not an end in itself (as some experts might at times suggest). Finally, it relates KM to the larger issue of what Gates calls “corporate IQ,” or what is more commonly called intellectual capital.

⁶¹ Bill Gates with Collins Hemingway, *Business @ the Speed of Thought: Using a Digital Nervous System* (New York: Warner Books, 1999), 238.

⁶² *Ibid.*, 238-239.

⁶³ A source of confusion that reflects a commonly held view in North America that the two are synonymous. Takahashi and Vandenbrink, “Formative knowledge,” 64.

Bill Gates is not the only one who is sceptical about the benefits of KM. According to a 1999 survey, in the early days of the KM movement, of all of the management tools available to corporations, KM was the least satisfactory; and of those who had adopted it, most companies dropped it as a useful methodology.⁶⁴ Frances Horibe, a noted expert in the field herself, has written, “in some organizations knowledge management has degenerated to the flavour-of-the-month level. Executives want ‘it,’ but have only a vague idea of what ‘it’ is.”⁶⁵ She goes on to point out that KM has two qualities that should give organizations pause: KM is resource intensive, and it is disruptive.⁶⁶ Her point is that KM is not a panacea; it must be approached judiciously, and it should only be adopted after a clear business case is made that justifies the investment of time, resources and effort. She concludes:

“In the process of implementing KM, at the very least employees will become annoyed; at worst, they will become cynics as they see so much time and money spent on what they correctly perceive to be another fad that will pass as soon as the higher-ups get bored. In those circumstances, KM becomes an answer looking for the right question.”⁶⁷

So why are so many companies and organizations, including DND, still on the KM bandwagon? Probably for the simple reason that, behind all of the hype and buzzwords, there really is something of substance that is important. Gates called it “corporate IQ,” but the rest of the world calls it intellectual capital. Intellectual capital is a subset of a broader category of resources that have come to be classified as “intangible assets.” As companies made the transition from the material-based economy of the Industrial Age to the knowledge-based economy of the Information Age, there emerged a

⁶⁴ *Ibid.*

⁶⁵ Horibe, Frances, “Step lightly before jumping on the knowledge management bandwagon,” *Canadian HR Reporter*, May 17, 2004, 19.

growing realization that an increasing percentage of assets were intangible. An important category of these assets was in fact the knowledge – both explicit and tacit – held by the employees and leadership of the company: the intellectual capital. Indeed, with the exponential growth of the Internet and e-commerce, many companies have arisen that have almost no tangible resources at all. How does one determine the value of organizations like Google and the other big “dot-coms” of the world? And how is it that traditional companies have lost market value with no change in their material value? The answer lays in intangible assets, and the measurement and management of these assets seems to have become the latest holy grail of the business world.

How is it that less than 30 percent of Honda’s market value is reported in financial statements? How is it that Microsoft reports an even smaller fraction in its reports?⁶⁸ The answer is that it is extremely difficult to accurately measure (and therefore value) intangible assets, and especially intellectual capital; and yet the numbers suggest that this very challenge is becoming more important than ever. As one European study has concluded:

“in an entrepreneurial environment such as the present one, characterized by market globalization, the intensification of competition and the high rate of technological change, tangible assets no longer provide sustainable competitive advantages. As firms are focusing on their intangible assets, intellectual capital can be viewed as the future basis of sustained competitive advantage.”⁶⁹

⁶⁶ *Ibid.*

⁶⁷ *Ibid.*

⁶⁸ Jan Mouritsen, Per Nikolaj and Bernard Marr, “Reporting on intellectual capital: why, what and how?” *Measuring Business Excellence* 8, no. 1 (2004): 46.

⁶⁹ Jesus Rodriguez Perez and Patricia Ordonez de Pablos, “Knowledge management and organizational competitiveness: a framework for human capital analysis,” *Journal of Knowledge Management* 7, no. 3 (2003): 82.

Once again, however, there are pitfalls here – some of them of considerable size and scope. As one expert has commented, “In the intangible world there are no guardrails.”⁷⁰

The problem is that an absence of effective management tools to track and control intangible assets has led to an absence of checks and balances in some organizations, creating the conditions for several spectacular business failures, perhaps the most noteworthy being the case of Enron.⁷¹

According to Michael Zack, an acknowledged expert in the field and a former visiting scholar to the Queen’s School of Business, it is essential that any organization fully understands the nature of its business before it embraces what has become known as the “knowledge-based view of the firm,” or KBV⁷². Once again, KBV grew out of the knowledge movement of the 1990s, essentially replacing the more traditional resource-based view of assets. KBV focuses on intangibles, and especially on the knowledge element of intellectual capital. According to Zack, categorization of an organization as “knowledge-based” is not determined by its focus on either products or services. From a study of over 30 companies, he identifies four characteristics for consideration: process, place, purpose and perspective. For example, he cites the global cement company Holcim Ltd. of Zurich as a case of a very material firm that has identified knowledge as its key resource.⁷³ Essentially, he suggests that it is not enough to simply declare oneself a “knowledge-based” institution (remember the *Strategy 2020* vision?); real effort is required and concrete (no pun intended) steps must be taken to apply knowledge concepts

⁷⁰ Jay Chatzkel, “The collapse of Enron and the role of intellectual capital,” *Journal of Intellectual Capital* 4, no. 2 (2003): 129.

⁷¹ *Ibid.*

⁷² Michael H Zack, “Rethinking the Knowledge-Based Organization,” *MIT Sloan Management Review* 44, no. 4 (Summer 2003): 67-68.

⁷³ *Ibid.*, 68.

to process, place, purpose and perspective. To quote from the CDS 2003 report, “First, we must transform the way we perceive and think.”⁷⁴

Drucker defines a knowledge-based organization as one in which “all members have to be able to control their own work by feedback from their results to their objectives.”⁷⁵ Basically, he equates knowledge to responsibility and makes the logical deduction that such a revolution in organizational thinking will have a dramatic effect on hierarchies. Such a dramatic move, he asserts, requires “that all members act as responsible decision makers. All members have to see themselves as ‘executives’.”⁷⁶ According to Drucker, such a creation of what the CF has called a “mission command” environment, in which knowledge workers are free to use their own judgment to find the best way to achieve organizational objectives, opens the way for three types of new knowledge: improvement of current processes and products; exploitation of existing knowledge to create new product developments; and genuine innovation.⁷⁷ Nevertheless, as Zack also points out,⁷⁸ Drucker concludes that, “Knowledge does not come cheap.”⁷⁹ A shift to a knowledge-based organization demands significant investment and considerable effort.

According to *Strategy 2020* and the subordinate strategies that followed it, the CF aspires to be “an innovative, relevant knowledge-based institution.” This vision was reconfirmed by the CDS in his annual reports to Government in 2003 and again in 2004. We have explored the knowledge concepts that underpin this vision, a vision that still

⁷⁴ DND, *A Time for Transformation*, II.

⁷⁵ Drucker, *Post-Capitalist Society*, 108.

⁷⁶ *Ibid.*

⁷⁷ *Ibid.*, 185.

⁷⁸ Zack, “Rethinking the Knowledge-Based Organization,” 70.

⁷⁹ Drucker, *Post-Capitalist Society*, 186.

remains intact after the publication of DPS 2005. As the Vice Chief of the Defence Staff reiterated recently, “I encourage all of you to explore new ways of creating, transferring and sharing knowledge to help foster DND/CF’s transformation to truly become a learning organization.”⁸⁰ So how does DND and the CF get from here to there?

According to Zack, “Companies that succeed over the long term align their knowledge-management processes with their strategy.”⁸¹ So what is strategy and how is it formulated in the first place?

SEEING THE ELEPHANT⁸² – WHAT IS STRATEGY ANYWAY?

Strategy: the word has become such a common part of our everyday lives that we hardly give it a second thought. Everyone has a strategy for everything. Sports teams have strategies for winning games; corporations have strategies for increasing their market shares; and of course militaries still have strategies for defeating their enemies. Indeed, as a result of this process of generalization, the word has almost become meaningless, except in its more technical connotations. There seem to be as many definitions of strategy as there are people writing about it.⁸³ In general, the spectrum of possible approaches is defined by pure art on one end and pure science on the other. Some schools of thought, most notably those following in the footsteps of the great Clausewitz, have emphasized the moral or unquantifiable aspects of strategy; while others following in the tradition of Jomini have dwelt on the geometric rationality of

⁸⁰ Vice-Admiral Ron Buck, “Thoughts from the VCDS,” *bravo Defence* 5 (Summer 2005): 4.

⁸¹ Zack, “Rethinking the Knowledge-Based Organization,” 69.

⁸² Henry Mintzberg quotes the poem “The Blind Men and the Elephant” by John Godfrey Saxe to illustrate his point that strategy means something different to everyone. See Henry Mintzberg, Bruce Ahlstrand, and Joseph Lampel, *Strategy Safari: A Guided Tour Through the Wilds of Strategic Management* (New York: The Free Press, 1998), 2-3.

⁸³ *Ibid.*, 3.

“real” strategic thinking.⁸⁴ There is, however, at least one basis for consensus on the question of strategy – it is important, perhaps even critical, to the success of any endeavour.

What is strategy? To find the answer to that question, it is useful to look to one of the most eminent theorists in the field of strategy, Dr. Henry Mintzberg of McGill University. Mintzberg identified no less than five definitions of strategy in broad use in the business community – what he called the “five Ps.”⁸⁵ He explained that strategy can be a plan that articulates an intended course of action, or it can be a pattern that describes a connected series of actions repeated over time. In addition, a strategy can be a position that identifies the relationship of a particular stance or product to the rest of the competition or market, or it can be a perspective of an organization that determines its approach to its business. Finally, a strategy can be a ploy that is essentially a deliberate manoeuvre against the competition to gain advantage in a negotiation. By describing these five potential views of strategy, Mintzberg helped to define the full range of understanding of strategy in the general literature. Perhaps more to the point, he demonstrated that the traditional military view of strategy as a plan encompassing ends, ways and means is but one outlook on a very complex subject.

Some of the more enthusiastic proponents of KBV have suggested that knowledge itself has become so important that it can now be considered the basis for a theory of strategy. In a prize-winning essay for the American National Defence University Institute for National Strategic Studies, one US Army officer proposed an evolution of

⁸⁴ This passage refers to two works: General Carl von Clausewitz’s *On War* (1832) and Antoine-Henri Jomini’s *The Art of War* (1838).

⁸⁵ Mintzberg *et al*, *Strategic Safari*, 9-15.

the US Army War College model of ends, ways and means to incorporate knowledge concepts. Lieutenant-Colonel Fast concluded that, “it is difficult to apply the ends, ways and means paradigm of strategy to information age security.... Clearly, we need a new framework for formulating information age knowledge strategies.”⁸⁶ While approaching the problem from a military cyber war perspective, Fast nevertheless developed an interesting revision to the classic strategy equation that bears consideration. He hypothesized that knowledge strategy seeks the ends of cooperative and dynamic competition, using the ways of nodal control and organizational adaptation methodology through the means of valued information enhanced by experience.⁸⁷ Many of his ideas were echoed by like-minded KBV converts in the business world.⁸⁸

On the other hand, there are compelling arguments that knowledge theory is not yet mature enough to provide a sound basis for strategy in its own right. In their detailed analysis of the subject in 2002, Eisenhardt and Santos determined that KBV theory lacks sufficient empirical evidence to prove that in fact knowledge is the only source of sustained competitive advantage.⁸⁹ Moreover, they deduced that for the most part KBV treats knowledge as just another (although important) resource, rather than as a viable alternative to resource-based thinking. In the end, their study concludes, “KBV offers a wide-range of important insights that are relevant for improved understanding of many strategic processes. But, it is not as yet a new theory of strategy or of organization.”⁹⁰

⁸⁶ Lieutenant-Colonel William R. Fast, “Knowledge Strategies: Balancing Ends, Ways and Means in the Information Age,” Chap. 1 in *Sun Tzu Art of War in Information Warfare*, edited by Robert E. Neilson (Washington, DC: National Defense University, 1998), 5.

⁸⁷ *Ibid.*, 8.

⁸⁸ Similar views are presented in J.-C. Spender, “Making Knowledge the Basis of a Dynamic Theory of the Firm,” *Strategic Management Journal* 17, Winter Special Issue (Winter 1996): 46.

⁸⁹ Eisenhardt and Santos, “Knowledge-Based View,” 158-159.

⁹⁰ *Ibid.*, 159.

If knowledge theory is not a new basis for strategy, then how does it integrate into existing strategic theory? As early as 1990, Mintzberg identified and began analysing ten schools of thought on strategy formation.⁹¹ The value of this approach is that it reveals all sides of the strategy “elephant” and the many viewpoints that have been expressed by various experts and groups over time. In *Strategic Safari*, Mintzberg and his colleagues described, analysed, and criticized these schools in detail. In brief, they are:⁹²

- a. The Design School – sees strategy formation as a process of conception;
- b. The Planning School – sees strategy formation as a formal process;
- c. The Positioning School – sees strategy formation as an analytical process;
- d. The Entrepreneurial School – sees strategy formation as a visionary process;
- e. The Cognitive School – sees strategy formation as a mental process;
- f. The Learning School – sees strategy formation as an emergent process;
- g. The Power School – sees strategy formation as a process of negotiation;
- h. The Cultural School – sees strategy formation as a collective process;
- i. The Environmental School – sees strategy formation as a reactive process;
- and
- j. The Configuration School – sees strategy formation as a process of transformation.

Mintzberg groups these schools into three categories: the first three are prescriptive in that they are more concerned with how strategy should be made than what it should look

⁹¹ Henry Mintzberg, *The Rise and Fall of Strategic Planning: Reconceiving Roles for Planning, Plans, Planners* (New York: The Free Press, 1994), 3.

⁹² Mintzberg *et al*, *Strategy Safari*, 5.

like; the next six are descriptive in that they describe how strategies actually get made in real practice; and the last stands on its own in trying to integrate all of the others to demonstrate how organizations evolve over time. While all of these schools of thought offer insights into how strategy is developed and what strategy is, of particular interest to the issue of CF transformation is Mintzberg's revelations concerning the Planning School in his classic work, *The Rise and Fall of Strategic Planning*.

In *Rise and Fall*, Mintzberg set out to expose the myths and realities of strategic planning. In doing so, he offered what is perhaps the clearest concept of strategy formation that has ever been developed. Key to his concept was identifying and explaining the difference between strategy-making and strategic planning. In analysing the latter, Mintzberg showed how the whole discipline had evolved from factory work studies of the early 1900s that had influenced management studies of the 1970s.⁹³ In essence, modern management theory had applied factory assembly line analysis to strategic management processes in an effort to create absolute control over predictable results. As Mintzberg demonstrated, this led to ever more elaborate models of systems analysis of ever-increasing detail, largely built around four hierarchies: objectives, budgets, strategies and programs.⁹⁴ Essentially, forms of strategic planning emerged to try to integrate these four hierarchies; unfortunately, as Mintzberg shows through an analysis of available evidence, more often than not, strategic planning has failed to meet expectations.

To be fair, there is a role for strategic planning and planners, as Mintzberg is quick to point out. Nevertheless, in what he has termed the "grand fallacy" of strategic

⁹³ Mintzberg, *Rise and Fall*, 21-22.

planning, Mintzberg identified the real reason for strategic planning failure – that analysis cannot produce synthesis.⁹⁵ As Mintzberg concludes:

“Because analysis is not synthesis, strategic planning is not strategy formation. Analysis may precede and support synthesis, by defining the parts that can be combined into wholes. Analysis may follow and elaborate synthesis, by decomposing and formalizing its consequences. But analysis cannot substitute for synthesis. No amount of elaboration will ever enable formal procedures to forecast discontinuities, to inform managers who are detached from their operations, to create novel strategies. Ultimately, the term “strategic planning” has proved to be an oxymoron.”⁹⁶

This does not mean that Mintzberg would get rid of planners and their analyses altogether. Far from it. In his work, he sees a key role for planners in the input, the support and the articulation of strategy-making; but his main point is that strategy formation is something quite different from the detailed analysis that has emerged in business planning, budgeting, and other like disciplines.

Mintzberg ultimately saw strategy formation as something analogous to a “black box,” because for the most part he saw it as an intuitive process, either visionary or cognitive, that largely occurs through the genius of the manager, or strategist.⁹⁷ In other words, the successful strategist is able to synthesize large amounts of explicit – but more importantly tacit – knowledge and intuitively create strategies appropriate to the environment and context. Planners provide the strategist with analytical data, support the strategy-making process with analytical tools if required, and articulate the strategy in a way that allows follow-up to the degree appropriate to the organization; but planners do not operate in the “black box.”

⁹⁴ *Ibid.*, 67-77.

⁹⁵ *Ibid.*, 321.

⁹⁶ *Ibid.*

⁹⁷ *Ibid.*, 317-320.

Perhaps the most important job for planners is to identify emerging strategies, a concept that is also key to Mintzberg's model. The idea that strategies can evolve within the organization without the conscious control of management is perhaps anathema to some schools of thought – especially the Planning School – but this is nevertheless the case. By identifying these trends, planners can provide important support to leaders by allowing them to see the broader picture of organizational development.

Mintzberg was not alone in identifying the critical role played by the intuitive manager/leader/strategist in strategy formation. In *Hope is Not a Method*, Sullivan also came to the same conclusion, although clearly from a different direction. Sullivan emphasized the need for 21st century leaders “who can see patterns where others cannot and have the courage to decide and act quickly.”⁹⁸ He called them “learning leaders,” and he used the jazz band metaphor to articulate the importance of improvisation and innovation.⁹⁹ While leadership in the Cold War period was likened to orchestrating all of the instruments in a large symphony which required close attention to strict rules and well-rehearsed manoeuvres, Sullivan underlined the need for the “Jazzman” strategist in the 21st century – a passionate leader who could create, innovate and improvise rapidly.

Of course, Sullivan is not the only author to use this jazz metaphor to describe these modern strategist traits. In 1998 the journal *Organization Science* devoted a special issue to the topic of “Jazz Improvisation and Organizing.” In one of the articles that made up the issue, Frank Barrett (who is both a professor of systems management and an accomplished jazz musician) identified seven characteristics of jazz improvisation that

⁹⁸ Sullivan, *Hope is Not a Method*, 220.

⁹⁹ *Ibid.*, 216-217.

make it relevant to organizational learning:¹⁰⁰ that it promotes “provocative competence” or the ability to inspire learning by disrupting old habits; that it embraces error as an opportunity for learning; that it takes a minimalist approach to structure and therefore encourages maximum flexibility; that it relies on negotiation and dialogue to achieve synchronization; that it relies on the ability to discern emerging patterns or strategies; that it creates communities of practice; and that it offers a model of shared leadership in which participants take turns soloing and supporting. Through this process of analysis, Barrett provided a powerful argument for the applicability of the jazz metaphor to the role of the modern strategist, citing many of the same features that Sullivan identified as essential in the “learning leader” of the 21st century.

Some would push this concept even farther, suggesting that the jazz metaphor still does not capture the full requirement for improvisation and innovations. In his critique of the jazz issue, Michael Zack went so far as to suggest that this metaphor needed to be stretched even beyond the known forms of the jazz genre, into a truly unconstrained field of real improvisation that depended upon the free interchange of tacit knowledge between gifted musicians (or, in other words, strategists).¹⁰¹ As Zack concludes:

“The jazz metaphor is extremely useful, but we must push it further. We need to unpack the metaphor so that we don't end up using it merely as a vehicle into which we force-fit our existing ways of thinking merely because jazz is different, and using it as a metaphor sounds hip, hot, or cool. Let's *really* improvise.”¹⁰²
(author's italics)

¹⁰⁰ Frank J. Barrett, “Creativity and Improvisation in Jazz and Organizations: Implications for Organizational Learning,” *Organization Science* 9, no. 5 (September-October 1998): 606.

¹⁰¹ Michael H. Zack, “Jazz Improvisation and Organizing: Once More From the Top,” *Organization Science* 11, no. 2 (March-April 2000): 228-231.

¹⁰² *Ibid.*, 233.

A KNOWLEDGE-BASED APPROACH TO STRATEGY IN DND AND THE CF

Commenting on the current iteration of CF transformation, one team of authors has suggested that:

“... to overcome the “bureaucratic fog” that inherently exists at National Defence, which creates inherent resistance to change, it will be essential for this CF transformation to maintain high momentum. This will likely be best achieved through the establishment of short-term focused goals that perpetuate rapid incremental changes, and by the reinforcement of new roles, behaviours and processes consistent with the main themes espoused for this transformation effort.”¹⁰³

As described earlier in this paper, the CF Transformation Team was tasked with developing a strategic implementation plan to maintain this momentum but used operational campaign planning methodology and essentially a Planning School approach. This paper has presented reasons why neither of these tools is appropriate to the task.

In order for CF transformation to succeed, it really must come to terms with what it means to be “an innovative, relevant knowledge-based institution.” Most importantly, DND needs to adopt a knowledge-based approach to strategy formation. This has to start by fully adopting the knowledge strategy proposed by DKM, with a complete understanding of the need to integrate and align this approach into departmental processes. As Zack points out, this is not easy, but it is doable.¹⁰⁴

The DKM model is constructed on the fundamental principle of the need to share information and knowledge – especially tacit knowledge – throughout the organization.¹⁰⁵ From a knowledge theory perspective, this model captures all of the key concepts and deserves serious consideration. Crafted in typical Canadian fashion in the

¹⁰³ Brigadier-General Daniel Gosselin and Doctor Craig Stone, “From Minister Hellyer to General Hillier: Understanding the Fundamental Differences Between the Unification of the Canadian Forces and Its Present Transformation,” *Canadian Military Journal* 6, no. 4 (Winter 2005-2006): 13.

form of an Inuit *Inukshuk* (Figure 1), the DKM model for a CF KM strategy acknowledges the roles played by technology and culture in facilitating and fostering knowledge sharing in the institution, but more importantly it emphasizes the key role of leadership.¹⁰⁶ This refers to the kind of “Jazzman” strategist identified by Sullivan, Zack and Mintzberg – the kind of strategist who can

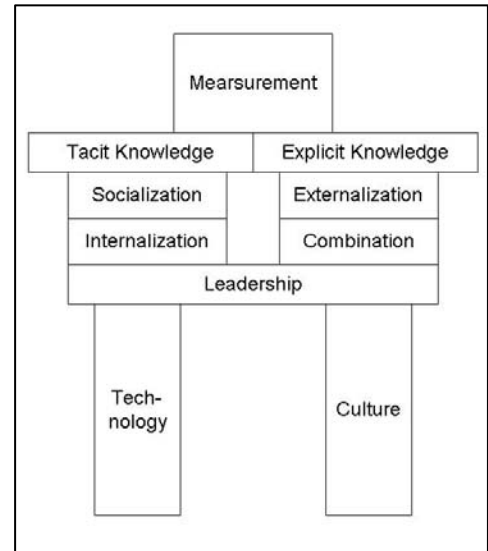


Figure 1 - DND KM Strategy Model

thrive in the uncertain and ambiguous 21st century environment described in DPS 2005.

At the same time, the organization needs to adopt a more integrated model of strategy formation. Campaign planning in itself is not the problem. Indeed, even Sullivan talks about the utility of campaign planning methodology, but only in the right context. As he points out, “The campaign plan may be supported by analysis and financial projections, but it is the ideas behind these elements – not the numbers – that are its essence.”¹⁰⁷ Essentially, Sullivan was making the same point as Mintzberg but from a military perspective. For Sullivan, the campaign plan is the strategy, a series of ideas that link actions to objectives. The current problem in CF transformation is that campaign planning has become caught up in classic Planning School analytical methodology, so that the plan becomes an end in itself.

¹⁰⁴ Zack, “Rethinking the Knowledge-Based Organization,” 70.

¹⁰⁵ Blodgett *et al.*, “Mobilizing Knowledge,” 6.

¹⁰⁶ For the best explanation of this model see Girard, “Defence Knowledge Management: A Passing Fad?” 21-23. Figure 1 is based on a diagram from Blodgett *et al.*, “Mobilizing Knowledge,” 6.

¹⁰⁷ Sullivan, *Hope is Not a Method*, 133.

To avoid what Mintzberg identified as the pitfalls of planning, DND and the CF should consider using a more integrated approach to strategy formation, such as the one suggested by Mintzberg at the end of *Strategic Safari*.¹⁰⁸ In this model, Mintzberg incorporated all ten schools of strategy formation into a single construct that exploited the strengths of each to achieve a more synergistic effect. The other nine schools centre around the Cognitive School, which is the only one to attempt to explain what occurs in the “black box” of strategy-making. While the Positioning School provides historical context, the Planning School articulates the output in a traditional planning format. The Cultural School and the Environmental School help by providing general context, while the Learning and Power Schools look at the details of implementation. The Design School and the Entrepreneurial School look for general context.

CONCLUSION

Upon his return from duty in Afghanistan in the fall of 2004, General Hillier developed a vision for the future of the CF based on the principles of operational effectiveness, strategic responsiveness, and organizational relevance. His vision comprised fundamental change to CF structures, capabilities and cultures, with a clear focus on operational output. Even as DPS 2005 was being written, he embarked on an ambitious process of strategy formation by using small teams of staff analysts to help him to refine his strategy for implementing his vision. To maintain momentum, he established a more permanent staff team to complete the strategy for implementation.

Unfortunately, operational and campaign planning methodology was chosen to develop the implementation strategy for CF transformation, rather than some of the other approaches suggested in this paper. This methodology is inadequate. In addition to being too enemy-centric and focusing too dogmatically on warfighting concepts like centres of gravity and decisive points, it ultimately falls into the main pitfall of strategic planning: inhibiting innovation by following a rigid, linear, analytical thinking process. Moreover, while the CF has paid some attention to knowledge management, knowledge is currently viewed as a subset of information management or simply a product of professional development. In order to truly become “an innovative, relevant knowledge-based institution,” DND and the CF need to embrace KM and incorporate it into the main strategy formation processes.

In order for CF transformation to succeed, the CF requires a well-articulated and effective strategy that incorporates the key role of leadership in innovative strategy-making. Command-centric strategy-making, as opposed to staff-centric strategic

planning, requires “learning leaders” – strategists who can manage uncertainty in the modern, complex environment by developing effective strategies, often through “rapid cognition.” As a knowledge-based, command-centric institution, the CF requires a transformational strategy focused on generating “Jazzman” leadership. In order to successfully transform to meet the needs of Canada in the 21st century, the CF needs leaders able to think strategically, create, innovate, and improvise. They must make the right decisions in the blink of an eye and not be blinkered by the rigidity of their own doctrinal planning methods.

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