Capturing leadership tacit knowledge in conversations with leaders

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Abstract

Purpose – The paper seeks to capture leadership tacit knowledge mechanisms built throughout leaders’ careers. Learning to be a leader involves developing the tacit knowledge to give confidence in one’s decisions. Most of the knowledge required cannot be acquired from explicit documents – rather, it is built through action, experience and reflection. This research focuses on leadership in the innovation context where learning potentially occurs through a variety of knowledge building processes.

Design/methodology/approach – Narratives from 31 leaders who have achieved success in innovation leadership were collected piloting a tacit knowledge articulation methodology. From the narratives, a model is proposed which is embedded in the leadership career pathways of these innovation leaders.

Findings – The findings suggest that leadership tacit knowledge mechanisms evolve with organisations’ life cycle. A bi-focal (developmental and “locus of knowledge” factors) model was assembled to explain how successful leadership involves balancing “locus of learning” from internal and external sources and facilitating mind-shifts (e.g. collaboration and communication paradigms underlying relationship and networking processes).

Research limitations/implications – The study sample size was relatively small – further replications with a larger number of subjects and in different contexts are planned or under way.

Practical implications – This research has implications relevant to both leaders interested in bringing their organizations to their next developmental level and to practitioners because leverage points are identified at which interventions designed to share the lessons learned from successful leaders will be most effective.

Originality/value – Tacit leadership knowledge is not easily transferred into explicit “how-to” instructions for consumption by a prospective innovation leader, yet it is a major source of competitive advantage. It is more appropriate to view innovation leadership development as a tacit knowledge building process in individuals and groups, rather than a knowledge transfer from knowledgeable leaders to wannabe leaders. A developmental model is proposed that integrates the changes occurring in learning patterns while firms expand their loci of knowledge.

Keywords Leadership, Tacit knowledge, Knowledge capture

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Introduction
How is leadership learned? Leadership emerges out of a complex performance domain and necessitates a broad response repertoire from which to draw as well as the ability to learn and respond to a variety of everyday interpersonal and organisational problems (Hedlund et al., 2003). Such an approach integrates major parts of cognitivist (Bruner, 1977; Piaget, 1926), humanist (Maslow, 1968), behaviourist (Skinner, 1973) and social constructionist (Lave and Wenger, 1991) theories, studying learning on a continuum ranging from individual to inter-personal located within relationships between people and environments.

The present research focused on the contribution of knowledge building processes to leadership development. The research addressed the question of how leadership lessons can be captured in the innovation context by collecting and analysing narratives of leadership success. The stories gathered from successful leaders (experts in leadership knowledge) represent a rich reservoir of experience to inspire and inform upcoming leaders in the development of their own reservoir of tacit knowledge about leadership. Building on existing knowledge on the development of organisations and theories of leadership the present research focused on how leaders learn what they know through thematic analysis of these key interviews. From a theoretical perspective, this research draws from the bodies of work on the “tacit knowledge” and leadership development domains.

Background
Tacit knowledge building
Tacit knowledge (Nonaka and Teece, 2001; Polanyi, 1966) is the set of scripts in our brains which form the basis for our actions and confidence in doing those actions. It includes processes for scanning and script adaptation to changed environments. Individual tacit knowledge in an activity area is built up in our brains from “seed” foundations, which may come from environment, motivation, opportunity or exposure, but then is reinforced and expanded through trial and error experiences and reflection on lessons learned. As tacit knowledge iteratively builds through these trial usages, then so does confidence in the environment scanning, decision making and action taking linked to that knowledge. Unlike explicit knowledge found in manuals or books, tacit knowledge is not easy to articulate or codify, or able to be transferred directly from one person to another. Instead, tacit knowledge is built by an individual, rather than being transferred through documents or taught by experts (Matthew et al., 2005).

Tacit knowledge has also been defined as having complex relationships with other individual internal belief systems, such as goals and expectations (Hedlund et al., 2002). Though tacit knowledge is not easily accessible to consciousness, the use of appropriate interviewing techniques may allow stories acting as the carrier of the tacit knowledge of experts to be expressed and recorded. By using stories as a carrier for that expert tacit knowledge, the recipient can meld their own experiences with those in the stories, and actively build, refine and extend their own tacit knowledge. Novices who are building their personal tacit knowledge can benefit from experts sharing stories of successes (Hill et al., 2003). This sharing of stories works by either planting the seeds of tacit knowledge in the novice, or by assisting the novice in refining or expanding their existing embryonic fragments of tacit knowledge in that area.

In a synopsis interview of six top leadership thinkers (Bennis et al., 2003) leadership tacit knowledge was identified as a critical factor in leadership success. Burke's
assessments that the field’s most exciting new development lay in the discovery of new methods to surface tacit knowledge lends him to place in first position on his research agenda finding novel ways to tap into leadership tacit knowledge.

Leadership tacit knowledge
Politis (2002) noted that leaders are central in “providing the vision and energy for knowledge sharing and to sustain effective knowledge management practice. Such leaders must contribute to the creation of a corporate knowledge culture and a managerial mindset that promotes the flow of knowledge throughout the organisation” (p. 194). Politis (2002) further showed how leadership could either enable or disable team knowledge building in teams and what consequences either had on performance levels. Given the importance of leader figures in this process, one may ask how do leaders build their own tacit knowledge about how to promote this organisational flow?

A number of studies have attempted to formulate leadership tacit knowledge into a scientific framework (Germain and Quinn, 2005; Hedlund et al., 2002; Hedlund et al., 2003; Larsson, 2002). Wagner (1987) also showed that practical intelligence, rather than academic intelligence, accounts for variance in leadership performance. Leadership tacit knowledge building is an interactive process involving acquiring tacit knowledge, applying it to new contexts (action), and evaluating the outcome of the actions (reflection). When previously acquired tacit knowledge is applied through action in response to new experience, the action tests the implications of that tacit knowledge that result in modifying or complexing the cognitive network of domain-specific tacit knowledge (Matthew et al., 2005). In summary, the authors believe that leadership tacit knowledge is based on experience and built through reflection and action.

Larsson (2002) demonstrated that a constant comparative method (Glaser and Strauss, 1967) could be used to extract tacit knowledge and leadership lessons learnt from historical material (recorded from General Grant’s experience during the US Civil War). Primary analysis of this material produced 71 categories of specific meaning units that could be used for tacit knowledge building. Other studies demonstrated that stories shared by leaders – whether via direct one on one interaction (Reamy, 2002) or via movie characters (Hill et al., 2003) were effective in helping upcoming leaders build their own tacit knowledge.

What are the gaps in these three domains?
Gummesson (2006) warned about the lack of research addressing the organisational realities of complexity, context and persona, and qualitative appraisal of the impact of tacit knowledge as outside of the mainstream organisational research. Whist Connell (2004) demonstrated the value of longitudinal data collection in describing firm learning adaptation, there is a lack of clarity about what empirical framework this data can fit in. In particular, are leadership lessons unique individual experiences, as reflected by their highly individual interpretation and context specificity (Shamir, 2004). Alternatively, are there common elements from leadership lessons that can be organised into a broader coherent framework, such as a development organisational lifecycle framework? In spite of the progress made by organisational life cycle theories (Chandler, 1962; Quinn and Cameron, 1983), there is a dearth of empirical evidence to support processes through which tacit knowledge can fit into a developmental perspective (Bryman, 2004).
Methods
Following the method devised by Tschannen-Moran, Nestor-Baker and colleagues (Nestor-Baker and Hoy, 2001; Tschannen-Moran et al., 2000) a group of experts in this knowledge was identified by a taskforce consisting of officials and innovation scholars. The taskforce compiled a master list of 35 leaders who had successfully commercialised scientific and technological innovation internationally and of “up and coming” leaders (leaders having shown potential towards international commercialisation, with some preliminary successes) within a balance of commercial sectors.

Of the 35 candidates, 31 interviews were able to be arranged and conducted. Most were face-to-face and video recorded, except in five cases, which were conducted over the phone. Interviewees’ ages ranged from 26 to 60, with a median of 55. Amongst them, 22 were “established” leaders (having reached and sustained international achievements) and nine were “up and coming” leaders (emerging on the international innovation and commercialisation scene). Two interviewees were women and 29 were men, which reflected the general leadership distribution in this sphere of business.

An interviewing methodology was especially designed adapted from the work of tacit knowledge researchers (Horvath et al., 1994) targeting critical turning points in conversation with leaders about their leadership career path and retrospective sensemaking (Nestor-Baker and Hoy, 2001). The resulting interview methodology was piloted with five leaders who were interviewed twice, once for data collection and a second time to review and provide feedback on the researcher’s conclusion. “Tacit knowledge” was sought from their narratives as the knowledge which gave them confidence in their actions (Janson and McQueen, 2003).

Working from an interpretive perspective, interviews were transcribed and analysed (Cheney, 2000; Lee, 1991; Putnam, 1983). Thematic analysis (Janson, 2002; Owen, 1984, 1985) was conducted on the interview transcriptions. Thematic analysis uncovers themes shared between different participants or different parts of one participant’s discourse by observing recurrence of threads of meaning, repetition of keywords, phrases or sentences and the emphasis applied in a text or narrative. Thematic analysis also takes into account what is absent from the narrative and should be investigated further. Message content is the main focus in thematic analysis and the aim of the analysis is to identify issues through the speaker’s lens or point of view. Owen’s original thematic framework is very much relevant to organise and analyse perceptions of interviewees in a variety of interpretive research settings (Glynn et al., 2003; Richardson et al., 2005; Zorn, 1998). In the context of the present research, thematic analysis was used to categorise and qualify elements of leadership success. Themes were grouped according to main themes and sub-themes emerging from the narratives. The result of this iterative process provided a profile of information and commentary that was of priority to participants.

“Mini case studies” were compiled encapsulating the knowledge from the stories collected during the interviews to describe more in depth one specific challenge that leaders learnt to deal with during their career. Mini case studies were written, of about 500 words each, which were intended to encapsulate only those elements that were instrumental in making up the particular lesson learned by the leader. A format and structure was developed for the mini case studies which included a short introduction, a problem description, the solution tested, and a “lessons learned” final paragraph which showed the particular insight drawn by the participants from their experience
(see the Appendix). The interviewer probed to get to this knowledge, as it was not immediately available to the interviewee. This shorter format was developed to share findings as a bridge between traditional tertiary teaching methods and innovative teaching of up and coming entrepreneurs.

Following preliminary analysis of the interview data, participants were sent a draft report explaining how the themes were identified and invited to participate in an online discussion to challenge the initial interpretations of the data. This procedure was intended to minimise the researchers’ biases, by taking into account Zorn and Ruccio’s (1998) contention that “any thematic analysis is itself a social construction, an interpretation by the researchers and influenced by their experiences”. Initial thematic categorisation was presented to interviewees by this procedure and the interpretations and analyses of the researcher were further refined during follow up interviews (Zorn and Ruccio, 1998). Participants’ feedback was sought on the themes that were identified. They mostly felt that the conclusions that had been tentatively reached “resonated” with their views, but in some instances, additional clarification was recorded and incorporated into the final report.

Results and discussion

Thematic analysis surfaced five main themes (leadership characteristics, developmental stage, tacit knowledge building, enablers and leadership context) and two sub-themes (factors manifestation and principles).

Assembling thematic patterns for leadership tacit knowledge building into a developmental framework

The five main themes were analysed forming the basis for a bi-focal developmental model. Three of the five main themes were present throughout the leadership learning process (leadership characteristics, enablers and leadership context). These main themes are summarised in Table I.

Leadership characteristics. The above findings corroborate research on traits and characteristics of knowledge workers (Mykytyn et al., 1994) and of leading figures in the innovation domain (Westley and Mintzberg, 1989). Politis (2002) notes, however, that knowledge acquisition and performance interact with personal traits and organisational mechanisms. Because these findings have already been extensively described in the leadership literature (Bass and Avolio, 1990), the focus of this research on the developmental parts of the model was deemed appropriate.

Enablers and disablers. Mentors develop long-term relationships with their protégés, while enablers get involved and use their influence to assist at an important leverage point. Enablers appear to fill a function as critical as that filled by the “weak ties” (Granovetter, 1983) in the larger network theory and may come from different disciplines, occupations and positions than those of the people assisted.

An example of a disabler is an individual in a key role in a lending institution (i.e. nominated by their banks as experts at evaluating who to invest in) who can sometimes “disable” the ideas of an aspiring innovation leader. This happens in the case where the disabler’s risk-averse attitude entirely controls their decision making. Some key transitions described by successful innovators involved bypassing a disabler through a change of financial partner: at least half of the leaders interviewed had changed bank once – mostly because the company was seeking more funding in a
high growth period while their bank was still operating under the previous impression they had formed on the company.

The bank still related to me as the apprentice I was when I first opened an account there. We needed to find more suitable financial partners, and so we “interviewed” different banks – they came back to us with proposals, as opposed to us submitting plans to them (Int24).

**Leadership context.** Leadership context factors are those dependent on cultural and societal norms prevalent in the country where leaders evolve. They are those factors influenced by the national environment the leaders operate in: economic and political factors, such as standard of living and government innovation policies or geographic factors such as market size and distance to markets. In the present analysis, these are factors operating in the “macro” scale. Factors vary with national priorities and individual leaders cannot affect them in short time spans. Because of space limitations,
the present article will focus on developmental stages and locus of learning to describe the interaction between the two factors in the leadership development pathway.

Developmental stages and transitions. Secondary analysis showed that two of the main themes (developmental stages and tacit learning) were perceived as those upon which leaders could influence the most. These formed the basis of the bi-focal model as described below. Successful leadership tacit knowledge building included evolving their role to accompany the company’s development, requiring significant career transitions as described below. Developmental stages follow the basic pattern of the organisation life cycle (Chandler, 1962) with its documented transitions. The present research adds the locus of learning dimension to the developmental stages as in Table II.

Locus of learning. How do leaders acquire and share the precious business knowledge that will grow their company? They lead a balancing act between “learning from within” (including self and awareness-raising) and “learning from without” (using sources of learning originating from outside the company). Often as the company is created, its founder is its knowledge bank (Thompson, 1994). The first pull (middle column) is an ongoing process of learning and letting go, from the leader’s perspective. Letting knowledge filter down to other levels of the company and facilitate knowledge generation is simultaneously essential for growth and a very difficult barrier to overcome. This is because many innovative endeavours involve an inherent conflict: on the one hand, at their beginnings a certain amount of secrecy and IP protection is required, on the other, in the very quest for partners or even staff, some sharing needs to occur. Hence, the first shift occurs in the internal learning mechanisms dimension through transition from a state of exclusive interaction with the knowledge to one of sharing and ultimately empowering teams to generate learning. Leaders’ narratives

<table>
<thead>
<tr>
<th>Development stage</th>
<th>Internal learning mechanism</th>
<th>External learning mechanism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genesis</td>
<td>Mental shift to achieving mode</td>
<td>Mental shift towards business model</td>
</tr>
<tr>
<td>Early stages: observing and learning the basics</td>
<td>Observe contemporary role models</td>
<td>Understand the market’s present needs by engaging in dialogue with it</td>
</tr>
<tr>
<td></td>
<td>Integrate with previous learning</td>
<td>Join (or create) peer networks, clusters</td>
</tr>
<tr>
<td></td>
<td>Develop empathy</td>
<td>Build trust relationships</td>
</tr>
<tr>
<td></td>
<td>Challenge: learn to listen, not talk</td>
<td>Overcome fear of connecting</td>
</tr>
<tr>
<td>Growth stages: applying and testing</td>
<td>Remember and apply early insights</td>
<td>Train to predict trends/future needs</td>
</tr>
<tr>
<td></td>
<td>Learn from and support staff</td>
<td>Join communities pf practice</td>
</tr>
<tr>
<td></td>
<td>Identify emerging leaders</td>
<td>Learn from obstacles/competition</td>
</tr>
<tr>
<td>Plateau</td>
<td>Challenge “comfort zone”</td>
<td>Change of aspirations</td>
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<tr>
<td>Chasm</td>
<td>Challenge self belief</td>
<td>Change of scope</td>
</tr>
<tr>
<td>Global stage: generating</td>
<td>Empower teams that learn to create knowledge in the company</td>
<td>Create global trends</td>
</tr>
<tr>
<td></td>
<td>Challenge: change individual learning patterns</td>
<td>Develop proprietary agent or wide-ranging networks</td>
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Table II. Leadership learning developmental stages along the wealth creation pathway
describe how they have had to operate a number of learning shifts throughout their careers and the life cycle of their organisations (Connell, 2004). The timing of these shifts is obviously related to the organisation’s growth but learning mismanagement can become a limiting factor.

The second pull movement in Table II represents how the learning acquired from external sources (right hand column) is funnelled into the organisation for it to feel ownership on it and act upon it (Peyrefitte et al., 2002). Hence, what learning is acquired through external channels needs to get integrated back into the organisation (so the movement through the table also goes horizontally from right to left, back to the organisation. The leader’s role is firstly to make sure that learning structures are in place within the organisation to receive it, and secondly that teams have the power and leeway to act upon it. For leaders to achieve topmost results, they will have had to take this one step further to empower teams to build their own knowledge-generating channels. While success can be a short-lived event, sustainability of success depends on how well leaders can raise the knowledge level in their company, by developing internal channels as well as external sources of learning.

The mini case studies comprise concentrated nuggets of knowledge, developed and tested through the experiences of the leader, although not necessarily always clearly articulated. These nuggets encapsulate the insightful learning that occurred to the leader at the time of the story, regardless of what stage a leader was at during a particular period. The leaders interviewed had powerful achievement drives, but many reported difficult transitions from their original science or technology specialty to that of acquiring the innovation leadership knowledge they needed to build global businesses. Some observed that business and people strategies topics lacked urgency on their original learning agendas, often leading to bankruptcy in their early career. Early leadership learning happened in first work environments, by observing and taking mental notes on role models’ leadership styles or organisational climates. These early lessons learned helped avoid replicating mistakes by building awareness levels and transforming early negative experiences into constructive positive knowledge.

At the next developmental stage leaders need to challenge the company’s mindset to become a global player (Wunderer, 2001). This is the stage where early individual learning needs to be integrated into leadership knowledge and tried out (Harvey and Novicevic, 2001). Leaders reported taking action to optimise learning from within the company and put in place the needed support structures, or create them if they are missing (such as privately funding a crew of postgraduate students – Int5).

As the company develops, identifying emerging leaders – or allowing them rise and “identify themselves” (Int16) is a crucial task, as it lays the foundations for the third developmental stage with an internal locus of learning: train the company to optimise the knowledge it accumulates within and use it to strengthen its brand. Participants often described a plateau broken through as the company entered the globalisation development stage. This entailed chasm-crossing with the challenges of stepping into the unknown and is exemplified in the narrative about vision-transcending. One leader related how he assembled learning from individual early formative experiences (Shamir, 2004) and adapted individual methods to create interventions with his team. This learning has proven to be crucial in thrusting his company into future markets and he leverages this by providing young and upcoming talent in his organisation with
the help he did not have originally. This particular example is included in the present paper as one example of a “mini case study” (see the Appendix).

At the transition points between internal and external locus of learning, leaders must accept that they no longer have most of the knowledge about their company/product – a significant change from early stages (topmost left corner of Table II), especially when the leader is also the founder. Opening up to alternative sources within the company and outside of it for learning through relationships (Galbreath, 2002) allows firms to optimise learning.

The three major development phases also include external locus of learning components as shown in Table II. Illustrations of some of the learning taking place during the early stages include leaders’ narratives of how they used virtual communication pathways to sustain and grow the company’s relationship with its customer base. Virtual communication was not only what the company was developing as a product, but also became the platform for its success. In an industry where firms develop resource saving automated software that answers questions to minimise staff contact with customers, this company realised the potential of the very contact with the customers, which became a source of inspiration for R&D ideas. It has married direct and virtual customer contact by forming online user discussion groups where users help each other as well as keep in touch with the company.

Other narratives of firms who, while learning from their market, maximised both learning opportunities and relationships with their clients:

We form partnerships with our customers for R&D – this strengthens mutual trust. One day, I was interested in trying a new idea, so I asked a client if he would mind letting me produce a different but daring design. I promised that if it did not work, I’d refund his money. He agreed and it turned out great. It was important as we could carry on testing and keep our lead on the market. This new model worked well over the years for us. One challenge for our manufacturing company is that of R&D. You absolutely need to have an proactive attitude to take advantage of new technologies and materials but our real challenge is that we cannot make our products “on specs” like builders make houses to sell later – our products are tailor-made for each client. In this case, we take an initial risk as always in R&D, but the client tests it for us! (Int21).

During the next growth stage, external learning from future customers was maximised by early contact with potential markets during market research carried out by the founder himself. Carrying out their own market research by flying out and visiting clients may seem to go against accepted leadership practices for market research (that it should be carried out by trained professionals). Some businesses actually guarantee, by carrying out such activities themselves, that they are able to gather the knowledge most tailored to their needs while strengthening customer relationships. Leaders themselves may step in using relationship building to learn about the major contracts that will propel the company forward: “connections at the highest levels do carry a high legitimacy value and save us precious time in the product cycle” (Int17). Another way to gain recognition in their field of expertise is to share their proprietary knowledge with future clients:

We often co-developed knowledge in Ergonomics with potential customers as the field of expertise itself grew. Firstly we shared a common passion for the subject and sharing that was rewarding in itself, but in addition, when they needed to place new orders, they automatically considered us as the experts in the field which put us naturally first in line for important contracts (Int31).
Transition into the next stage happens when some resolution is found to the conflict between two operating modes: the first, prevalent at the venture onset, that learning must occur simultaneously to holding secrecy and protecting the company’s IP, and the second that learning involves sharing and that knowledge exchange is a necessary condition for growth. These can, of course, co-exist but finding the right balance between the two is a delicate challenge that not all can solve. Positive experiences accumulating interaction with peers allow for the necessary development of trust for the next transition to occur. Leaders who have crossed into the next stage, however, have defined the formula that allows networks to be vessels and channels for effective and secure knowledge transfer. Building internal networks, “institutionalising” learning processes so as to turn them into company assets, form alliances with external partners (agents/licensing partners) are all part of overcoming these challenges.

Networks are places where knowledge is co-created (Lave and Wenger, 1991). Institutions such as incubators and clusters were perceived to be critical to leadership development because allowing “safe spaces” to build trust. Leaders can also facilitate knowledge-sharing and guide mental shifts (Politis, 2002), for instance from internal competition to internal collaboration towards international competition. Similarly the shift can encourage new directions for instance for firms to collaborate with different international partners and compete together, as opposed to against each other and, as in the following example, necessitate the institutionalisation of new communication patterns.

Transitioning into the global leadership sphere happens through exercising a profound impact on the market or stakeholders. This occurs while overcoming market-specific obstacles to growth (for instance helping local authority learn about and formulate new standards for a market to list their products) all the way to transforming the market itself.

The offshore customer gave early welcoming signs of our product but their Government officials were inflexible that it did not fit their standards . . . it was in fact superior to all other products they had tested so they did not have a standard that would accurately reflect its quality level!! We worked together with their Standard authority and in the end of a long learning process they created a new standard for us!! It was painful but worth it! Directly tackling and overcoming local import barriers was our way to sustain the company’s innovation (Int8).

The profound impact that global leadership involves can sometimes help facilitate deep social change in the countries they expand to by literally creating the infrastructure needed to support new products when markets were not ready for them. One participant described this activity as about “changing the DNA of the target market” (Int18).

People skills, in their many different forms, facilitate and accelerate learning paths. The ability to make and sustain significant personal and organisational contacts is central to this path. Relationship building inside the company insures the team is chosen adequately and collaborates towards reaching the success goals collaboratively, while developing close relationships with clients ensures the firm learns about current opportunities and future needs from them. As leaders progress on their success path, the networks they build around them and their companies increase in complexity: relationship building thus culminates in building and facilitating widespread networks of relationships. Relationship forming skills often cross into the virtual domain. For instance, leaders need to lay foundations and channels of
communications that support learning from customers and, depending on the setting and type of industry, this may involve connecting them into networks (online discussion groups of customers) or developing novel communication platforms. Hence the developmental model takes into consideration both the internal (Neil et al., 2004) and the external (Gadman and Cooper, 2005) locus of knowledge manifestations. This model, however, stresses how crucial it is for leaders to successfully balance between these loci, as failure to master one of these may prevent successful transition into the next developmental stage.

Accelerating the learning process
Serial entrepreneurs (who have started more than one venture) describe learning substantial lessons from their experience because they are able to compare between situations across time and draw multidimensional conclusions from their experiences. According to one interviewee, it is important to follow serial entrepreneurs who have led companies a number of times:

The lessons you learn at each stage are different; each time you start over you are more efficient; hence climb the developmental ladder faster! First-time innovators are prisoners of their leadership mental model – particularly if they are very successful – and come to believe that the only way is the way they have lead their company. The second time around, they apply the same mental model and of course it does not work! . . . The third time around, their attitude is very different than at the start – they exude silent confidence without having to vocalise it . . . Then, there is the financing component that impacts the development speed of the company: companies can develop either in a slow but continuous upward motion or at a more sudden S type curve rhythm: in fact funding a company at a certain point in its development may allow it to “ride the S curve” of what is otherwise called the market’s S. Serial entrepreneurs would have accumulated critical knowledge about timing the climb on the S curve (Int1).

To the other segments of society, it has not always been obvious or acceptable that failure is an integral part of the innovation process. Recognising this fact and mastering the art of balancing between risk management and accountability is essential in building a stronger knowledge base for society. This is particularly important in the science and technology innovation process, because research and development processes vary in length and risk. Serial entrepreneurs are propellants for rapid growth. They report that their learning about developing people and companies gets more efficient with each success and failure of their ventures.

As I prepared to start my second venture, I was positive I could get to the point that took me 10 years the first time in 4-6 years. I have learnt how to develop and communicate a much clearer vision about how to progress on my path (Int23).

Another adds:

I am now developing my second business venture . . . I can’t wait to work on my third venture! (“Why?”) “Because the biggest lessons I learnt while doing my second venture were about how much I did not know in my first one! Imagine what I will learn in my third one!! (Int1).

Interviewees report that serial entrepreneurs view the world from a unique standpoint: they have tacit knowledge and experience that others simply don’t have. Where is the leadership in serial entrepreneurship? Serial entrepreneurs have developed expertise in
facilitating collective capacity building. Trust building activity, for instance, is recognised as a leadership “must”. Trust building is what serial entrepreneurs do in an iterative way. Where do the results of trust building manifest themselves? When serial entrepreneurs attract people who trust them and are prepared to follow them on the basis of what they have accomplished in their previous venture.

**Following leadership mindshift processes**

There is ample evidence that changes in leadership and management styles are needed to accommodate the changes firms go through as they grow (Thompson, 1994), this research, however, depicts changes in mindshift processes as appraised through unearthing of tacit knowledge. Mindshift processes relating to internal *locus* of learning deal with the challenges of going deep in self and company, developing noticing abilities and higher self-awareness. Those mindshift processes identified in this paper are the challenge to listen more than talk (coaching, peer support, etc.), the challenge to change the company’s mindset to become a global player (inspire creative thinking, developing non-traditional approaches to defining new innovative leadership capacities), the challenge to vacate comfort zones and build self belief, and the challenge to ultimately change individual learning patterns to socially activated and constructed learning. Mindshift processes relating to external *locus* of learning are relational challenges about making the meaningful connections to the world outside the company and tapping into the knowledge residing there through its networks and processes. These domains include the challenge to build relationships of trust and overcome fear of connecting and fear of sharing, challenge to aspirations and challenge to scope and aim to ultimately change fundamental values and communication patterns to networked thinking. Findings of this research support Wagner’s (1987) classification of the three domains of tacit knowledge (tacit knowledge about managing self, others and tasks).

**Limitations of the study and future research**

The first and most obvious potential limitation of the study was its sample size: the group of 31 studied was a relatively small sample of all innovation leaders. Thus results cannot be generalised to leaders or innovators as a population. A second limitation concerns the methodology used and the specialised interviewing skills needed to carry out the types of tacit knowledge eliciting described. Alvarez and Urla (2002) note that since specialised types of interviews are appropriate to collect the perspectives of expert populations, there is a challenge to researchers to acquire the skills needed to conduct such specialised in-depth interviews and experiment with probing techniques to discover elements of interviewees’ experience beyond the original story told.

Whilst some one-on-one enabling/mentoring is effective in assisting tacit knowledge building, it is not an efficient model for intervention. Novel ways to gather leadership expertise are needed so leadership stories can move beyond the realm of anecdotes and be used in tacit knowledge processes building in a more efficient manner. Future research opportunities lie in the investigation of the parameters of efficient tacit knowledge building perhaps through the development and implementation of novel teaching and leadership development paradigms. Since the tacit knowledge framework as described earlier can help emerging leaders build their own tacit knowledge, it could be useful to carry out comparative studies of different ways to engage such population...
in distributed and virtual environments. In particular, the different modalities for measuring the extent to which listening to the narratives from established leaders impacts on the experiences of upcoming leaders should be investigated and compared across cultural environments.

**Conclusion**

Tacit knowledge cannot be “taught” – it must be built through insight, experience and reflection. In particular, leadership tacit knowledge is hard to build. There are few accessible global innovation leaders (“few Bill Gates to act as role model to young professionals” – Int1) and they are often solicited to participate in many more educational/business projects than they have the available time in which to participate. Leadership tacit knowledge has traditionally been built through apprenticeship and mentoring experiential processes, but with appropriate methodology and technology support it could be brought deeper into the collective consciousness domain. This method proposed distilling leadership stories and disseminating them through a “mini case study” structure encapsulating specific tacit knowledge topics. Though tacit knowledge is not easily accessible, the use of appropriate interviewing techniques (Cheetham and Chivers, 2000; Neil *et al.*, 2004) as used in the present research allows it to be expressed and recorded. In the process of becoming explicit through language and the vehicle of stories, it becomes a valuable focus for reflection. These “seeds of knowledge” were embedded within the framework of a larger model, which differentiates between sources of learning, making it easier for upcoming leaders to use in their tacit knowledge building. The identification and isolation of these “seeds of knowledge” also makes it possible to package them in various formats appropriate for different audiences and purposes. Upcoming leaders who read and discuss these “mini case studies” in class or leadership development programmes will then be able to use these resources and assess, experiment and integrate them with their own experiences in the process of tacit knowledge building during their career development. These case studies can act as vestigial tacit knowledge “hooks” on which they may call upon when confronted with similar dilemmas, issues or situations, and subsequently modify and refine their tacit knowledge as appropriate for their own leadership environments. The second (plateau) and third (“pre-chasm”) proposed intervention points can be addressed by laying foundations for the development of a self-diagnosing tool to be used by leaders of growing companies to expose which of the identified elements their leadership is missing, what are the particular obstacles to overcome and how their accumulated knowledge is linked with other belief systems and attitude about achieving success.

An organised methodology, set of processes and delivery technology to support the building of tacit knowledge in leadership innovation would represent a significant contribution to the present body of knowledge. The model presented here, however, shows that a pre-requisite of such development is the exploration of mindshift patterns that involve significant unlearning. Through the proposed developmental model lens, the present study identified a number of transformations of locus of knowledge during which targeted push for enabling action would bear most impact. It is planned, in future research programmes, to carry out interventions at various points along the pathway aimed at yielding very different results – some that will cause long-term changes, others that will produce results within a shorter time span. The three important intervention points that were identified – start-up, plateau and “pre-chasm”
– seem natural starting point indicators. These are the leverage points at which it will be most effective to share the lessons learned from successful leaders. Addressing the first key intervention point starts by assessing the additional competencies that can be developed in leaders and guide them in understanding their own learning processes, including tacit knowledge building.

This knowledge is relevant to both organisations (Beckett et al., 2000) and practitioners (Baird and Meshoulam, 1988; Hedlund et al., 2003) because individual and team-held tacit knowledge has been recognised as a source of firm competitive advantage (Mascitelli, 1999). Why is it important? Because there are potential major benefits in accelerating the leadership development process as a whole, and learning and tacit knowledge building is critical to this process. Accordingly, the hypothesis that leaders’ stories provide a rich resource of experience that can be used to inspire and give confidence to upcoming leaders in the process of building their tacit knowledge is currently under scrutiny.

References


Appendix. Example of a “mini case” study: develop the vision, then … transcend it!

Background and relevant biographical elements

Ned co-founded Bellaire Ltd in the 1980s, listed it successfully on the NASDAQ in 1998 and later merged it with a US-based company. Ned started his work life at 13, working in the demanding physical environment of meat processing factories:

Looking back, this helped me learn FAST how to deal with people in positions of authority and clarify my role and theirs in shaping my future. I learned that if I decided to do something, there simply was nothing that could stand in my way. The internal message I would switch on was “I can do it and I will!”

Identified issue

Early on, he realized that human potential was only limited by people’s imagination and constrained by fear of the unknown. He set out to build a strength in his understanding of human capabilities and to apply what he learned to business challenges.

Lessons learnt

I spent a good part of my life developing focus abilities to make good decisions and building strength to pursue the goals I believed in.

He developed an internal “post-incident debriefing” method where he retrospectively reviews important decision crossroads or actions.

I look at what I did and coldly analyse my own mistakes or weaknesses before trying again.

Maturing as a leader, he tackled the ultimate challenge – that of transcending the very vision he had crafted and pushing the boundaries of his imagination.

Looking back at what I accomplished in the past, that I did not think I would in my wildest dreams, I think “what is it I cannot conceive of today?”

This needs a different method of self-development than the approach used in building his people understanding skills. The new approach requires first developing mechanisms to cope with discontinuity which he compares to playing with pick up sticks and identifying patterns which are not discernable at first amongst the chaos.

Discontinuity is almost like picking up sticks, to some it looks like a random event; it is those who can see the patterns that win.

Once discontinuity is understood, it can be created and synthesized to one’s advantage!

How can one self-train to identify patterns in the complexity of global business? Going into a meditative state, Ned taught himself to connect into the energy flow of his own stream of consciousness (different cultures have different words for it) and improve his power of imagination and conception: “if you can imagine something, then you can achieve it!”. This process was also fun, a sensation comparable to pushing physical boundaries during dangerous sports. He challenges the conventional business practice that encourages overt structure and process over determination and imagination:

I lead my teams through a process I call “liberation” (from their internal blocks) rather than “empowerment” (which implies they receive power from an external source).

Now he helps young potential talents develop their vision, often in an anonymous capacity.

This is important for the country – it is an investment in our future and those who are in a position to help have a responsibility to do it.
About the authors
Annick Janson is the Microsoft New Zealand Research Director, “Partners in Learning” programme. She previously held the positions of inaugural Research Director, New Zealand Leadership Institute, University of Auckland Business School; Researcher in Residence, INSEAD and Visiting Research Associate at the Gallup Leadership Institute and Harvard School of Consulting & Clinical Psychology. Since 2003, Annick has been Principal Investigator, Royal Society of New Zealand’s leadership research, collating the first New Zealand leadership archive, enabling storytelling analysis and electronic dissemination toward leadership tacit knowledge learning. This work also pioneers a visual research reporting methodology for the social sciences. Annick received a Gallup Positive Psychology Award in September 2006 for her research in leadership formative experiences and represented New Zealand at the Global Leadership Summit at the Gallup Leadership Institute, Washington 2006. She has served on several advisory boards and government steering committees and as editor for a number of refereed publications in the leadership area. Annick has a PhD in Management Systems from the University of Waikato, New Zealand (emergence of online leadership), an MA in Clinical Psychology from Tel Aviv University, Israel, and is a registered Clinical and Educational Psychologist. She has taught in more than ten tertiary institutions globally. Annick Janson is the corresponding author and can be contacted at: a.janson@auckland.ac.nz

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