

CONSTRUCTING THE KNOWLEDGE FOUNDATIONS FOR SUSTAINED INNOVATION IN AN AUSTRALIAN COMMERCIAL ENTERPRISE

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Abstract

In 2001, Eagle Datamation International (EDI), a leader in the Australasian customs clearance and freight forwarding software market, embarked on a process of cultural transformation in response to changes in its regulatory environment. The first phase of this transformative process involved the execution of a strategy of 'creative destruction' through which a new 'insurgent' culture, focused upon rapid learning and knowledge-construction activities pertinent to its new purpose, was created in the midst of the old 'incumbent' organization.

This paper documents the second phase of strategic action, aimed at strengthening the nascent culture of innovation at the 'new' EDI. Strategies developed for this purpose included revisiting, and collectively reconstituting, the strategic *Core* of the organization (vision, mission and core values); establishing regular forums of interactivity characterized by the principle of 'creative abrasion' – active and vigorous social debate around ideas; and the mediation of the CEO's power by inviting a university researcher to play the role of an 'external critic'.

Using the analytical framework provided by the grounded theory generated by this phase of strategic action, the paper identifies three critical dimensions of the constructed environment that appear to facilitate creativity, learning and innovation at EDI: the capacity of the organization's leadership 'to work with' culture; the recognition of creativity, learning, and knowledge as 'social capital resources' that are embedded in the social contexts of their acquisition and application; and the vital role played by the external critic in the provision of an 'external' perspective that challenges the perspectives of organizational 'insiders' that develop as a consequence of specific work and life histories, roles, and power relations.

Keywords: Knowledge-construction, learning, creativity, social capital, organizational leadership.

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Submitted for the Practitioner Track

Introduction

Eagle Datamation International (EDI), a leader in the Australasian customs clearance and freight forwarding software market, recently embarked on a process of cultural transformation in response to changes in its regulatory environment. Entitled the *Odyssey* project, the first phase of this transformative process involved the execution of a strategy of 'creative destruction' with the intention of creating a new 'insurgent' culture at EDI that is focused upon rapid learning and knowledge-construction activities pertinent to its new purpose (see White & Dovey, 2003).

This paper documents and analyses the second phase of strategic action aimed at strengthening the nascent culture of innovation at the 'new' EDI. Its purpose is to contribute grounded theory on cultural environments that support sustained innovation in organizations and to locate such theory within existing theoretical frameworks with respect to this issue.

After outlining the three key strategies collectively developed by EDI staff for the purpose of developing and sustaining a culture of innovation at the 'new' EDI, the paper presents a 'strategic narrative' of the second phase of action and makes explicit the grounded theory embedded in this narrative. Furthermore, it identifies three critical dimensions of the newly-constructed environment that appear to facilitate creativity, learning and innovation. These dimensions emphasize the capacity of the organization's leadership 'to work with' culture; the recognition of creativity, learning, and knowledge as 'social capital resources' that are embedded in the social contexts of their acquisition and application; and the importance of an 'external' perspective able to challenge the 'insider' perspectives that develop as a consequence of specific organizational and life histories, roles, and power relations.

The paper has been scrutinized at various phases of its development by the entire staff contingent at EDI. Consensus has been reached on the accuracy of the final draft in terms of its general representation of the processes through which cultural transformation has been attempted, and its analysis of the events arising from these processes.

Background to the Second Phase of Strategic Cultural Action at EDI

By August 2003, EDI had a completely new range of products; had entered new global markets; and had achieved significant new revenue flows. The original *Odyssey* team of eight people had grown to eighty people, and constituted almost all the staff contingent of EDI. *Odyssey* had thus become the 'new EDI'. However, the CEO was aware that, as Dougherty (1999: 82) points out, most organizations fail to sustain innovation because of the unusual structural conceptualizations, ways of organizing, and work practices required for sustained innovation. This remained the most important challenge for the new EDI.

By the end of phase one of the project, the organization consisted of eleven teams, each with a nominal manager. The CEO was a member of the core team but interacted daily with all the other teams. Although the team managers had the title of 'product manager', they had little effective decision-making authority. The historical 'central power' culture (see Handy, 1995) of EDI was still a feature of power relations with almost all decision making being channelled through the CEO. In response to the growth of the business, the CEO was now advocating, at least at the rhetorical level, the development of a true team structure characterized by the genuine empowerment of individual members of these teams.

In order to ensure sustained innovation in all aspects of EDI's organizational endeavour, staff needed to be encouraged to accept collective responsibility for the construction, and re-construction, of a culture that encourages and supports creativity among them. A Bell Laboratories researcher, quoted by Leonard-Barton (1995: xv), sums up this task well:

Innovation ... is a connected process in which many and sufficient creative acts, from research through service, couple together in an integrated way for a common goal.

In particular, the EDI team would need to think, and act, like an *insurgent* in every aspect of organizational life: new product development; the marketing and sales of products; product delivery; customer training and support; new work practices; and new means of staff recruitment, selection, and development. These challenges would raise fundamental epistemological and methodological issues regarding the processes through which the necessary knowledge for these new practices would be accessed or constructed. The strategy would thus need to include the transformation of staff *mental models*

(assumptions about 'how the world works' – see Foster & Kaplan, 2001) in order to develop the constructivist assumptions about knowledge and its emergent nature, that underpins the leadership's view of the strategic construction of the requisite 'culture of innovation' at EDI.

Thus, the 'strategy' would once again need to be the 'culture' (see White and Dovey, 2003) but this time it would need to be an enterprise-wide culture, and the essence of this culture would need to be reflected in the capacity of all staff to collaborate in ways that ensured the effective execution of EDI's knowledge construction strategies. In relation to a company that she had researched, Leonard-Barton (1995: xiii) outlines this problem thus:

The link between strategic technological capabilities and daily routines was unclear. That is, once a company knew how to position itself relative to the competition, how should managers build the capability to support that position? What should they do differently if they want to create, nurture, enhance, or adapt core technological capabilities?

In the build-up to phase two of the project, it became clear that the effectiveness of EDI's everyday interactive forums, the management of their increasing complexity, and the quick recognition of the implications of the outcomes from such collective endeavour for the continuous generation of mission-pertinent knowledge would be critical to the success of this phase of the project.

Implementing the Second Phase of Cultural Action

Interviews and focus group sessions held with staff during August 2003 reflected an EDI culture with several strong behavioural themes:

- Creativity inhibitors such as the domination of interactive processes by a few powerful people, especially the CEO whose presence intimidates many staff; and the absence of enough 'completers' to trail the dominant creators in order to 'pick up the pieces' - pay attention to the detail, document decisions, capture the ideas that have been generated, and generally try to ensure that commitments undertaken are honoured.
- Creativity facilitators such as a culture of trust, freedom of thought and action, and generosity (with respect to resource allocation) in which there is little to no micro-management; and the physical layout of the workplace (large, open-plan, floor of a

renovated warehouse with no divisions or offices) that facilitates easy, face-to-face communication and knowledge sharing activities among all staff.

Two key themes emerged from staff responses to the interviewer's question about what needed to happen for creativity and learning to flourish at EDI:

- The need for a challenging vision and mission to be created and communicated in order to align everyone's work with the purpose of organization.
- The availability of new challenging work for individuals who feel that they are no longer learning and growing in their current jobs.

As a consequence of this feedback, three key strategies were developed to address the challenge of building and sustaining a cultural environment at EDI in which learning, creativity and innovation would flourish:

- Firstly, the strategic *Core* of the organization (vision, mission and core values) would need to be revisited and collectively re-constituted in order to ensure the commitment of all staff to a 'co-created' renewed *Core*. The purpose of this strategy would be to refocus attention on the cultural nature of everyday practices that promote creativity and learning across the organization and, thereby, facilitate the construction of the mission-pertinent knowledge that fuels the development of mission-relevant innovative products, services and work practices. At its core, this strategy would involve the creation of a 'negotiated order' (Strauss, 1978; Barley, 1986; Dougherty, 1999) at EDI where the decentralization of power was not a management technique but 'an intrinsic aspect of the social order' (Drucker, 1964), and where staff participation in the design of their work environment led to their appreciation of 'the sense of control' that such participation provided them (Leonard-Barton, 1995).
- Secondly, new cultural practices, such as that of *intrapreneurship* (Pinchot, 1985) through which the entrepreneurial potential of organizational 'insiders' could be realized, would need to be encouraged. As Foster and Kaplan (2001: 243) argue, intrapreneuring offers a practical solution to one of the most vexing challenges facing an organization: how to release the entrepreneurial talent of its workforce. In support of such practices, regular forums of collective interaction would need to be constituted wherein issues arising from such new cultural practices could be discussed, debated and acted upon when necessary. Whether involving the entire

staff contingent, groupings of staff working on the same project, or staff and specific customers these communicative forums would need to be characterized by active and vigorous social debate on ideas and practices in accordance with Leonard-Barton's (1995) principle of 'creative abrasion'.

- Thirdly, the CEO's power over staff and project action needed to be mediated in the interests of the effective execution of the *strategic core* of the organization. Given the history of the company and the strength of the CEO's personality and knowledge bases, someone who had the respect of the CEO needed to be invited to play the role of 'external critic'. Sarason (1972: 250) describes an external critic as,

someone (or a group) who, at the earliest time possible, accepts the task of understanding and responding to the purposes and values of the setting, the consistency between words and actions, and the sources of actual and potential problems. He is *not* a member of the setting. He is an outsider, independent, knowledgeable about, and sympathetic to the purposes of the setting. He makes a long-term commitment and regularly spends time in the setting in whatever ways he deems necessary to gain knowledge and understanding. His relationship to the setting is explicitly based on agreement that his task is to contrast the reality as he sees it with the way those in the setting see it, that his goal is not to be loved or admired, and that his remuneration will not depend on the cheeriness of his perceptions. He paints reality as he sees it. He has no responsibilities except to observe, study, and report. He is not someone who waits for problems to be brought to him; he seeks them out. His obligation is not to any individual, but to the purposes and values of the setting.

A feature of this role would be to hold everyone, including the CEO, accountable for the implementation of decisions upon which consensus had been reached. To succeed in this role, the independence of the external critic (hereafter EC) would be crucial (in terms of the CEO's power to control or silence him). The CEO invited the academic researcher who had supervised his graduate work to play the role of 'external critic' at EDI. All EDI staff were informed on the agreement between the EC and the CEO that there would be no financial remuneration for the EC's role (to

ensure that the CEO had no hold on him) and, furthermore, that the departure of the EC from the EDI scene would signal the failure of the project of cultural transformation at EDI. The EC agreed to be physically present at EDI for one day of each week, when he would interact with individuals, groups and teams, and to be accessible to all staff by telephone and email at other times.

Implementing the New *Strategic Core* of EDI

The first strategy undertaken was that of renewing the EDI *strategic core* (vision, mission, core strategy and core values). Neither the existing vision or mission statement accurately articulated the *purpose-in-action* of the new EDI. Thus the new vision and mission had to articulate the goal of industry leadership through innovation; the core strategy had to address the structural and cultural conditions under which creativity and learning would generate mission-pertinent knowledge; and the core values had to embed in the consciousness of staff the new mental models (assumptions about self, others, and 'the way EDI works') necessary for the conversion of staff creativity into the innovative products, services and work practices required to realize the mission. In developing the core values, the EC and the CEO drew strongly on the material gathered through interviews and focus group sessions on the staff's perception of behaviour that is necessary for creativity and innovation to flourish at EDI. In order to facilitate the memorization of these core values, each was 'sloganized'.

The New EDI *Strategic Core*

The following statements were proposed:

Vision: To lead the international trade, transport and logistics industry in technology innovation

Mission: To continuously create and deliver leading software products, renowned for their simplicity of use, functional capabilities and value for money, to the global trade, transport and logistics industry.

Core Strategy: To enable, empower and encourage our people to achieve extraordinary results through effective teamwork and individual effort.

Core Values:

- Through our combined skill, creativity and commitment we craft our success. *Collaboratively, we create the future of EDI.*
- The reward that we value at EDI is the opportunity to grow through work that challenges us. *Through our work, we grow.*
- We believe that collaboration is a fundamental obligation and that at EDI there is no such thing as a stupid idea. *EDI is an ideas company.*
- Respect for each other as creative human beings is the basis of our collaborative success at EDI. *We strive to discover the extraordinary in each other.*
- We recognize that creativity is fired by emotional energy and thus do not ask people to impale themselves on their work commitments. *No life balance, no creativity at work.*
- We believe in our people having authority and accepting responsibility for their actions. *It is our right and responsibility to lead when we see the need.*
- Without our customers we would not exist. Customers give us focus, feedback and challenges that must be met and exceeded. *No customers, no mission.*
- We believe that through constructive confrontation we can all work to the highest level of our capabilities. *We fight for excellence.*

The proposed new *strategic core* was presented to a gathering of the entire EDI staff corps on the 18th September 2003. The CEO presented the vision, mission and core strategy statements and placed them in the context of EDI's history and its recent transformation through the *Odyssey* project. The EC presented the core values stressing that, as issues articulated by EDI staff, they were grounded in staff-desired everyday behaviour at EDI and thus should not be confused with the meaningless statements sometimes imposed by organizations upon staff in an attempt to enlist their conformity to management-desired behavioural standards.

The proposal was well-received and openly discussed and critiqued. A decision was taken to 'workshop' the proposal within each team and to review it after one month in another gathering of the entire EDI staff contingent. In the interim, the proposed *strategic core* elements would be documented on posters and small laminated cards. It was intended that these core values would act as an 'empowerment tool' with respect to everyday interaction in a context of profound change and would facilitate the socialization of staff to

the everyday practices around learning and the co-construction of knowledge upon which the execution of EDI's *strategic core* is dependent.

Learning to 'Live-Out' the *Strategic Core*: The Strategic Action Narrative

During the subsequent weeks the EC met regularly with individuals and teams to facilitate serious discussion and debate on the proposed new *strategic core* statements. He found consensus across the staff that the *strategic core* initiative was a positive one and that, if honoured by all, it would greatly increase the chances of EDI's mission being realized. However, most staff remained sceptical that the core values would be honoured in their integrity by others, especially by the CEO. The challenge for the CEO was thus to lead from the front with respect to modelling the core values in every aspect of his role at EDI. People had to see him *living out the core*, in an everyday sense, before they would believe that it was being taken seriously at EDI.

The 'Richard Problem'

As a consequence of staff scepticism about the CEO's capacity to change, the EC confronted the CEO expressing his fear that the CEO would renege on the empowerment strategies espoused by the new project once the implications thereof for his power base became evident. The EC also shared his perception of the thoughts of the staff when the new project was discussed with them – '*You're going to change Richard (the CEO)? Good luck!*' In response, the CEO reiterated that he is ready and able to transform with the organization and expressed his recognition that he has to transform his leadership style to one more appropriate to the new EDI. The following day, the EC received an email from the CEO stating:

Last night was really great for me. It set all sorts of thoughts off. I was very interested in your frank assessments and I want you to be more critical of my weaknesses. Given that I have grown so much over the past few years - the only way to keep going is to get much deeper into the 'Richard problem'. My problem has been balancing the power that I put to the leadership task. If you take the view that you expressed then my leadership dynamic is strong and can drown out others' contribution. So the real dilemma is how to lead without stifling individual participation, collaboration and teamwork.

Thus a key aspect of the EC's role has been to engage the CEO in continuous discourse on the form of leadership and, in particular, power management most appropriate to EDI's strategic Core. In this respect, although some progress has been made, through the core values, towards the empowerment of staff with respect to autonomous decision making, the espoused goal of an organizational form in which power is fully decentralized is still far from being realized.

Poor Inter-Team Communication Practices

The EC discovered that some existing practices contradicted the intentions of the *strategic core*. While staff felt that communication within teams was good, they viewed communication between teams to be poor. Similarly, communication between product managers was irregular and ineffective and, in some cases, was plagued by interpersonal competitiveness and destructive power plays between specific product managers. This problem was addressed by counselling the relevant product managers to guide rather than control their teams (switching their focus from control behaviours to results-facilitating behaviours) and to encourage team members to call stand-up meetings spontaneously for all relevant stakeholders in the resolution of a problem, irrespective of their team membership.

Staff Insecurity

Another issue that requires on-going action from the EC is the general insecurity of staff. It has taken a lot of encouragement from the EC for staff to accept the decision-making authority and responsibility to lead when necessary (as impelled to do by one of the core values). This tentativeness seems to be a consequence of past socialization and workplace experiences (at EDI and elsewhere). Existing mental models (about 'self' and 'authority') make the exercising of several of the core values very difficult for many staff members without constant encouragement and reassurance from the EC in particular. A related problem is the assumption held by most staff at EDI that people's personalities cannot be changed (thus reflecting the positivist orientation typical in information technology settings - see Ridley & Keen, 1998). In response, the EC refers them to one receptionist who is very vocal on how much the CEO has changed over the previous two years, arguing that if a powerful personality like the CEO can change, then anyone at EDI can change;

The Offer of Challenging Work

EDI's principal value proposition to its staff is the provision of challenging work. This aligns well with staff value propositions which generally are driven by the desire for challenging work through which they will develop new skills and knowledge bases. One of the core values addresses this cultural requirement for on-going challenge and learning for all members of staff and the EC has had to maintain pressure on the CEO to honour this core value by offering new challenging roles to those staff who express boredom in their current work roles. Where business pressures require people to remain in their current roles, the CEO is encouraged to discuss the situation with the staff member and to commit to creating a new role at a specified time in the future.

Collective Responsibility for Personal Growth

An event, triggered by the EC's use in the first general meeting of an example of one member of staff who had commented that he had not learnt anything new in his work role over the previous few months, opened up a new debate around the role of social interaction in individual development and affirmation. The following email was received by the EC from a staff member:

Ever since we had that "core value" meeting I had been thinking about a comment Brendon had told you. He had told you that he's not learnt anything in the last six months (or so). I was shocked when I heard about it, because I have seen him growing during this period. Perhaps other people have seen me growing during last six months as well, but unfortunately I had the same feeling about myself (not that extreme, but I was thinking it could be better) and was thinking that I'm the only one who is like that. ... (T)he point is people can live in a prison and think they are free or can live on a beautiful beach and feel like they are imprisoned.

At the same time, the EC received the following email from another member of staff:

One thing I have noticed is that people are not given a lot of praise at EDI. Try and ask anyone in the company when the last time they were told that they are doing a good job was. I think you will find that most people will say that it was a long time ago. I may be wrong but I believe that giving praise means a lot to the morale of people. It doesn't cost anything to give people a pat on the back and tell them that they are doing a good job. I think you would find that a lot more

people would participate in discussions and come with creative ideas if they were once in a while told that whatever solution they have come up with is excellent. ... Anyway, I'd be happy to discuss

As a consequence of these emails, the EC used one of the general meetings to discuss the role that each of us plays in each other's sense of themselves, their confidence and self-esteem, and their awareness of their own growth and development. Using the words of R.D. Laing (1967), the way in which each member of staff is 'the other to the other' was discussed, and the challenge embedded in several of EDI's core values to enact the responsibility to affirm each other and to recognize the growth, or the failure to grow, in others was made explicit to all staff.

Fighting for Excellence

A key aspect of the new culture involves the implementation of the core value of 'creative abrasion'; of developing the capacity in all members of staff to 'fight with each other' in order to realize the excellence in each other. Several issues emerged from the process of coaching staff to engage in such interactive communicative behaviour:

- Staff did not have a shared understanding of the concept of collaboration. Although all knew the word, their understanding of the concept varied from 'working together' to 'challenging each other in the interests of finding a solution'. A discourse on the concept, as it relates to creativity and knowledge construction activities within the context of the EDI *strategic core*, had to be facilitated by the EC within all teams and groupings to address this issue.
- A major stumbling block to the development of 'creatively abrasive' interaction at EDI was the inability of many staff to detach their egos from their ideas. This resulted in people defending their ideas irrationally (because they were *their* ideas) and intellectual arguments degenerating into negatively-charged emotional personal battles. Staff had to be coached to distance their ego from an idea and to allow the idea to survive critique on its merits.
- Another impediment to constructive confrontation at EDI was the inability of some people, particularly software developers, to accept a compromise solution in the face of business pressures to meet deadlines and deliver products. As perfectionist 'purists', somewhat detached from other aspects of the business, they viewed compromise as an unacceptable practice. As all staff were coached to see the

- inter-relatedness of all aspects of the business (for example, that the EDI mission states clearly the purpose of EDI 'to continuously create *and deliver* leading software products'), so these individuals became more open to compromise as a 'necessary evil' at times.
- An awareness of the complexity of the nature of *communication* emerged for all through the process of implementing the core value of *fighting for excellence*. People became aware of how the mental models of each screened out, or misinterpreted, threatening or unwelcome aspects of others' communication. Similarly, people became aware of the mismatch between their communicative intentions and their actual communication and began to learn the importance of active listening and reflective speaking when engaged in communication on important and/or emotionally-charged topics. Personal psychological defences became more evident when talk was challenged by a demand for action and, suddenly, someone who had been a vocal critic became paralyzed by fear of taking responsibility (because of his/her fear of failure). This form of 'failure of courage' became evident as individuals who claimed that they needed more challenging roles, back-tracked quickly upon being given such new roles; and as those who claimed that EDI was physically divided into 'us' and 'them' camps, quickly found excuses as to why they could not 'cross the floor' (literally to move their desks into the so-called 'us', or 'in-group', camp) when given the opportunity to do so.
 - One senior member of staff confronted the EC one day telling him emphatically where he could stick the core values. Tearfully, she claimed that on two occasions she had tried to 'lead when necessary' and that, on each occasion, the CEO had 'bitten her head off'. She claimed that there was another matter, related to an unhappy customer, that she felt the need to take the authority to sort out but, after the CEO's behaviour on the previous two occasions, she was not prepared to 'stick her neck out again'. The EC confronted the CEO who claimed that he had not 'bitten her head off' (clearly each had a different conception of what 'biting someone's head off' means!). The EC re-emphasized to the CEO that he had to model the core values if they were to have any serious meaning at EDI and that his behaviour had been inappropriate. He then appealed to the staff member to, once again, risk taking the authority and to use the core values to justify her action to the CEO if necessary. One day later, she sent the following email:

In the end I was able to resolve this issue without getting Richard involved. Using core value number 6, I empowered myself to go to another department, worked with their team and mine, and resolved the problem for the client. The client is now happy. I probably should have done this yesterday instead of waiting to speak to Richard to see if he would allocate me a resource to sort out the issue. It really did not need Richard's intervention but given past history I felt I should. In this case the core value worked!! I have since sent an email to the various department managers who should have been involved in this problem and explained where we let the customer down and definitely did not live up to core values 7 or 8 and asked if they might address the issue so we don't have this problem in the future. ... I thank you for your time to listen yesterday.

Working with Culture and Mental Models

Another factor that affected individuals' ability to transform their behaviour in accordance with the new cultural norms was the cultural and personal baggage they brought from previous work and life experience. One person found it very hard to cope with not 'being the best' developer and, as a consequence, became destructively aggressive when his ideas were not accepted uncritically but were subjected to debate and critique in the interactive forums; several staff claimed that the hierarchical nature of their ethnic culture made it very difficult for them 'to take the lead when necessary'; several other staff claimed that hierarchical and autocratic organizational cultures in which they had worked prior to joining EDI, had destroyed their self-confidence and thus their ability to 'to take the lead when necessary'. These issues necessitated coaching of the relevant individuals to understand that EDI's future depended upon the staff's ability to implement the new *strategic core*, and that this depended upon the staff's capacity to transform their mental models (assumptions about self, others and the 'way the world works') appropriately.

Developing Distributed Leadership

A significant positive factor in the process of cultural transformation at EDI was the informal leadership role played by many staff. Staff regularly approached the EC to point out issues that needed to be addressed by someone such as the EC (problematic

behaviour by the CEO and/or other staff members that put the *strategic core* at risk; or to share ideas that the CEO might construe as a challenge rather than a suggestion; etc.). Through such committed action, staff members were able to bring urgent issues to the notice of the EC that may otherwise have taken weeks for him to notice (given the fact that he only spent one day of each week at the site).

Building an Internal Community from Disparate Origins

The condition of 'requisite variety', stipulated by Nonaka & Takeuchi (1995) for creative social interactivity, is met easily at EDI where the staff composition constitutes a miniature version of the 'United Nations'. Many nations and most continents are represented on the staff of EDI and this brings an exciting mix to the 'inter-subjective encounters' that inform everyday practice there. Individuals are learning rapidly to 'leave their national identities at the door' when they enter the EDI premises and to embrace their EDI identity for the duration of the workday. Thus, the new cultural action at EDI is creating an internal EDI community - that 'fights for excellence' - out of the disparate national and ethnic communities from which the staff originates. Furthermore, requisite variety in the new interactive forums has also been achieved by expanding membership of the traditionally 'developer-exclusive' forums to include representatives from other functional areas (sales, marketing, training, logistics, and administration). A challenge that remains, however, is to ensure greater participation by real customers within these communicative forums.

Keeping the CEO Honest

A second general meeting of staff took place on Thursday 24th October. The intention of the meeting was to discuss the proposed *strategic core* with the hope of reaching consensus on it. An incident occurred on the day prior to the meeting when the CEO 'lost it', as he put it, and harshly confronted a staff member in front of all the other staff. Several staff reported this to the EC as soon as he arrived on the day of the meeting, saying that although they understood the staff member's provocation of the situation, the CEO's behaviour had violated the core value of respect for everyone at EDI. The CEO conceded to the EC that his behaviour was inappropriate and stated that he was open to the idea of apologizing to the staff at the general meeting. The EC approached the relevant staff member and he, too, was remorseful over his role in the event and agreed to apologise to the CEO at the meeting, for provoking the incident. Soon into the CEO's presentation at the meeting, he offered an apology for his behaviour on the previous day, as did the staff

member involved in the incident. Through this interaction they reinforced collective faith in the core values and demonstrated the manner and speed by which the inevitable behavioural 'slip-ups' between members of staff needed to be resolved. After unanimous agreement on the *strategic core*, as initially proposed, was reached at the meeting, a model for team appraisal of performance against the *strategic core* was proposed with the intention that teams would trial the model over the subsequent three-month period. A general staff meeting would be called late in February 2004 at which this proposed performance appraisal model would be discussed and evaluated for use at EDI, and the issue of a new incentive system would be introduced for trial.

Evaluating Cultural Transformation at EDI

Measures relating to the tangible aspects of growth (new products, sales, revenue flows, number of new customers, etc.) all reflect impressive growth with exceptional growth predicted for 2004 (when the full effect of the regulatory changes that were implemented late in 2003 will be experienced). Various anecdotal forms of evidence of change are plentiful. For example, according to the CEO, levels of customer satisfaction have risen, software quality has improved by around 50%, and the speed of software development has increased significantly since August 2003. Similarly, after a visit to EDI late in November 2003, Neil Roodyn, a British consultant previously used by EDI, had this to say in an email to the CEO:

I am so happy to see things going so well. The progress you and the whole team are making is fantastic and really exciting. You are the most 'awake' company I have come across in Australia and right now I believe the sky is the limit for you guys. I spoke to a number of the team and morale is most certainly far higher than I have ever seen it there before. Jeez, I wish I could can that stuff. Congratulations!

In order to measure the intangible results of the first three months of this phase of cultural action in a more formal manner, two students on 'industry placement' at EDI were commissioned to conduct interviews with a total of twelve randomly selected EDI staff. In preparation for these interviews, the EC sent out a general email message reminding staff about the goals of the *Core* project and requesting their participation in this attempt to evaluate any change in EDI's intangible assets as a consequence of the project. The message stressed the importance of these evaluative interviews to the on-going strategic

leadership of the project, and their voluntary and anonymous nature (only the two students, who had worked with EDI staff over the previous five months, would know the identities of those interviewed). In the interviews, two broad, open-ended questions were asked:

- Has, in your opinion, the EDI working environment changed in any way as a direct consequence of the introduction of the *CORE* project in August this year? If so, describe the changes that have occurred.
- Have you changed in any way as a direct result of the introduction of the *CORE* project at EDI in August this year? If so, describe the changes that have occurred in you.

Analysis of the Interview Transcripts

Two of the twelve members of staff randomly selected for interview refused to be interviewed. They were replaced by two other randomly selected staff. The use of open-ended questions ensured that the evaluative constructs were generated by the interviewees (and not by the researchers, as is the case in structured interviews where the constructs are presented for comment by the interviewees). This means that only those constructs raised voluntarily by the interviewees were considered for analysis and, therefore, that the validity of these constructs was far greater than would be the case when interview constructs are researcher-generated.

In response to the first question about the role of the *Core* project in bringing about change at EDI, three dominant themes (figure in brackets indicating the percentage of interviewees who raised this issue spontaneously) emerged from the interview data:

Teamwork and team spirit has improved at EDI (58%). The sense of more effective teamwork was expressed as developers and other staff working towards the same goal; less friction and more collaboration within teams; relationships at EDI having been 'equalized' (flattening of the intellectual hierarchy); greater recognition of the good ideas of others; greater responsiveness and willingness to help others; feeling that one has a mandate to ask questions and seek help from others; less in-fighting and competitiveness; greater empowerment of teams (less dominance by the CEO), less defensiveness (about one's ideas); and more respect shown for each other.

Communication has improved at EDI (50%). Those who reported an improvement in communication at EDI, saw such improvement in terms of the greater encouragement of communication across the organization; interaction between staff being less adversarial and more task-focused; greater empowerment of less confident staff in terms of expressing their opinion; greater responsiveness, openness and encouragement in people's communication; and less interpersonal tension because everyone has a clearer understanding of their own role and that of others. One interviewee claimed that the positive change in communication at EDI was directly attributable to the dramatic change in the CEO's communication style and patterns:

Richard has changed in the way he deals with people in a remarkable manner ... instead of driving them to go out and just achieve results by method of brute force ... basically Richard has started to empower his staff ... as a result people feel a lot better about what they do ... rising to the challenge of achieving the results that Richard wants by working together to achieve results – particularly on the development side of things.

The relationship between developers and other staff has improved at EDI (50%). The comment that 'the people who have been here a long time have felt alienated from the developers but now, increasingly we feel more like we're working towards the same goal' sums up the feelings of many of the 'non-developer' staff at EDI. These interviewees claim that the developers have changed their attitudes towards other staff and that non-developer staff have grown in confidence to question developers. Together this has improved communication and relationships between the two groups. The change in developers (especially the *Core* team) is described as them being less arrogant and being more open to question and the ideas of others. The greater focus on task has led to a less adversarial relationship between developers and non-developers. One reason for such change is attributed to the change in behaviour and attitude of the CEO: his more cooperative, less adversarial behaviour has set a positive model that has filtered down the old 'intellectual hierarchy', via the *Core* team, to the other developers. However, as one interviewee comments, the non-developer staff are not changing as quickly as the developers in this respect:

The areas that are peripheral to the development team, such as support and training, haven't had as much of the flow-on effect (of changes in the CEO) as

they're not as directly involved with Richard as the developers are ... there's going to have to be a lot of work done to get them more involved.

One interviewee claimed that even within the *Core* team (the team perceived by the rest of the organization as being the most empowered) there is a greater feeling of empowerment since the CEO has allowed them more creative latitude in their work – an act that has also mediated their team manager's *penchant* for control:

The team's sense of control over its own work has improved. There was a time when we as a team were kind of stranded ... like in the middle ...we were trying to think about what Richard would want, rather than what we thought would go well ... a lot of the teamwork stuff is helping our team, particularly with our manager ... he doesn't control us as much ... he is allowing us more autonomy ... we're getting a chance to show more creativity, offer ideas, that kind of thing.

In response to the first question several minor themes emerged. These were: work roles are clearer (33%); documenting the core values has been useful (25%); the project has created significant change in Richard (25%); the project has had the most impact on teams/individuals who were previously less empowered (17%); the project has had the most impact on teams/individuals who were previously empowered (17%); people at EDI have always taken pride in their work and worked hard (17%); there has been no change at EDI (8%); the project has had no impact on the empowered teams (8%); people are more prepared to take on extra responsibility (8%); and EDI has become a more professional organisation (8%);

Personal change as a consequence of the *Core* project. In response to the second question, on the degree to which the experience of the *Core* project had changed them personally, 58% of the interviewees believed that it had changed them in significant ways. These included being less frustrated at work; feeling more accepted and appreciated; being more confident and comfortable in making decisions; more courteous and helpful to others; more motivated because of better relationships and communication; less fearful; feeling that they are taken more seriously by others; and being able to hold others accountable for their work responsibilities.

Sub-themes to emerge in responses to the second question were: no personal change has resulted from the project (33%) and the performance appraisal process has been the source of significant positive personal change (17%).

Theorizing the Strategic Action: Developing a ‘Grounded’ Theoretical Framework

An analysis of the strategic narrative of this phase of cultural action at EDI reveals three critical dimensions of the constructed environment that appear to be facilitating creativity, learning and innovation.

The first dimension relates to the capacity of the organization’s broadly-defined leadership ‘to work with’ culture: the EDI experience shows clearly that culture creation, and re-creation, is a critical leadership task at all levels of an organization. At its source, this involves the creation and management of a negotiated order (Drucker, 1964) or social contract (Moss Kanter, 1997) based upon shared purpose, values, and strategy. It also involves sustaining a ‘discourse on change’ through intensely interactive social forums. In the context of emergent operational and organizational realities the task of ‘working with culture’ is never complete but has to be sustained continuously as mission-relevant cultures are aligned, and re-aligned, with changing business purposes. The interactive processes through which this task is being collectively executed at EDI provide evidence in support of a strategy of developing broadly distributed leadership through the genuine empowerment of all staff. These interactive forums – ranging in nature from stand-up meetings to performance appraisal sessions in which the performance of team members is critiqued by peers and the CEO in the spirit of learning and growth - create the conditions under which ‘inter-subjective encounters’ fuel individual and collective creativity and sustain the everyday work practices that convert them into innovative products and services.

The second dimension endorses the perspective of social capital theory whereby the phenomena of creativity, learning, and knowledge are viewed as resources that are embedded in the social contexts of their acquisition and application. The strategic narrative highlights the crucial role of certain aspects of the constructed social contexts at EDI in facilitating the development of these phenomena, and singles out for particular attention the role of communication in such environments. While many leadership texts

expound the virtues of good communication, few analyse the concept of communication in terms that are useful to an understanding of *what* it is, and *how* it facilitates creativity, learning and other knowledge construction activities. The grounded theory generated by the project thus far explains the *nature* of the forms of communication that sustain innovation in an organization and, thereby, contributes to the explanatory power of social capital theory, especially with respect to communication being an *inter-subjective* resource upon which the effectiveness of knowledge-informed action is highly dependent.

The third dimension relates to the vital role played by the external critic in challenging the perspectives of organizational 'insiders' that have developed as a consequence of their specific work and life histories and the organizational roles and power relations through which their everyday practice is conducted. The strategic narrative outlines the variety of sub-roles, such as those of ombudsman, confidant, critic, researcher, spokesperson, and coach that the EC's role has had to encompass, and reflects its meta-theoretical function with respect to the interactive social processes that facilitate mission-focussed strategic action. In this respect, Gardner's (1965) observations on the reasons for organizational failure, emphasize the pertinence of this role within an organization:

I have collected a great many examples of organizations or institutions that have fallen on evil days because of their failure to renew themselves. And I want to place before you two curious facts that I draw from those examples. First, I haven't yet encountered an organization or institution that wanted to go to seed or wanted to fall behind in the parade. Second, in every case of organizational decline that I know anything about, there were ample warning signs long before trouble struck. And I don't mean warning signals that only a Monday morning quarterback could discern. I mean that before trouble struck there were observers who had correctly diagnosed the difficulties to come. ... Now if there are plenty of warning signals, and if no organization really wants to go to seed, *why does it ever happen?* The answer is obvious: eyes that see not, ears that hear not, minds that deny the evidence before them. When organizations are not meeting the challenge of change, it is as a rule not because they can't *solve* their problems but because they won't see their problems; not because they don't *know* their faults, but because *they rationalize them as virtues or necessities* (Gardner, 1965, quoted in Sarason, 1972: 250-251).

As evidenced at EDI, the role of an external critic in overcoming leadership defensiveness in order to facilitate an honest and accurate perspective on performance is vital to the success and sustainability of any organization.

Conclusion

This paper has documented the first three months of strategic action of the second phase of cultural transformation at EDI. Over the following months several new initiatives are planned with a view to consolidating and extending the cultural environment thus far created at EDI. These include reaching consensus on a performance appraisal process that is focused on learning and growth; the introduction of an incentive system based upon collective performance; greater interactivity between software developers and real customers; and the institutionalization of co-coaching, co-teaching and co-learning practices at EDI.

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