

The impact that information and communications technology is having on all types of organisations is all too apparent today. Through the deployment of technology we have seen the execution of new business models, the reconfiguration of demand and supply chains, the implementation of new processes and work practices, and the creation of new products and services. All of these are the result of innovation: marrying the capabilities of new and emerging technologies with business opportunities.

Despite the many examples that can be found, innovating through information technology is a key challenge for organisations. Few are consistently able to “mindfully” innovate through IT. While there are a multitude of examples of IT being deployed by organizations to provide them with a superior competitive position, in the majority of cases these are one-off instances with organizations unable to sustain this innovative capability. It would seem, therefore, that many innovative deployments of IT are the result of serendipity or luck rather than through any formal innovation process. Although strategic information systems planning (SISP) also has an objective of seeking opportunities to innovatively deploy IT, it focuses more on aligning IT investments with current strategic trusts and on achieving business objectives rather than with transforming the strategy itself through novel deployment of IT.

Business innovation through IT is an emerging discipline which exists at the intersection of both information technology and innovation. While both information technology and innovation are immature, it appears

“[t]he real story of Silicon Valley is not “e” but “i”, not electronic commerce but innovation and imagination ... It is the power of “i,” rather than “e,” that separates the winners from the losers in the twenty-first century economy.”

Gary Hamel

that their intersection and synthesis in a new cross-discipline of IT innovation can add significant value in a world where information technology is becoming ever more pervasive.

The Cranfield IT Innovation Resource Centre

It is intended that during the research a comprehensive electronic resource of content addressing the theme of IT innovation will be built up. Findings from the research generated from this proposal will be made available to those involved with the project in a virtual environment. In constructing this resource centre, we will look to make use of a range of multimedia technologies (e.g. Podcasts, webcasts, Breeze presentations) to make content as accessible as possible. While a “living” resource, it should help in spreading the research findings across sponsoring organisations with the objective of leading to improved practice and an increase in the overall value realised from IT spend.

How can the IT innovation process be structured and managed?

Given the assumption that organisations should seek to innovate “mindfully”, formal processes may need to be established. The research will seek to develop a blueprint to enable the construction of an appropriate IT innovation process. A key question to consider is how similar to, or different from, conventional forms of innovation is IT innovation (i.e. from traditional R&D processes). Is it a top-down or bottom-up process? What are the road blocks to the implementation of this process? How is an environment that is conducive to innovation cultivated? What are the payoffs in terms of enhanced managerial decision making, organisational performance improvement, and competitive advantage? Are there particular mechanisms, routines and incentives that can be put in place to support the innovation process, for example metrics or targets? However, formal processes can also stifle innovation; how can the balance between formal and informal processes be struck?

What role do individuals and other stakeholders play in the IT innovation process?

It is unlikely that any one individual or group will dominate innovation through IT. What roles are required in innovation processes and who is best positioned to play these roles? In particular, what is the role of the CIO/CTO in IT innovation? Who are the right people to

be involved? Who should drive, or own, the IT innovation processes? How can executive management and other stakeholders be engaged in the IT innovation process? Addressing this question must also examine the role of vendors, technology companies and consultancies in the IT innovation process.

“93% of UK companies state that innovation is crucial to business success”

Mori Survey, Oct 2005

How do organisations make sense of new and emerging technologies?

Strategy is typically developed by the executive management team, many of whom are unlikely to have an IT background yet are increasingly required to envision and explore strategic options and opportunities enabled and shaped by IT. How can this dual requirement be reconciled? How do executive management become aware of new technology capabilities and how do they make sense of them?

The conversations that take place in organizations around IT will be an important ingredient in the innovation process. Recently, there has been some research work that has explored the “social cognition” that drives innovation in new IS and how executives make sense of new technologies. How are potentially disruptive technologies identified and embedded in the managerial discourse? How are visions of how IT could

potentially shape an industry developed? What is the role of “the hype cycle” in the consideration and adoption of new technologies?

How can innovative ideas be assessed?

The benefits of innovations through IT can be unclear and difficult to quantify. Developing a systematic framework for evaluating innovations could provide the organisation with a means for aligning innovative outcomes with business objectives. Tools and techniques that can help in assessing innovations will be required for the process to be implemented, particularly to prove the value of any ideas generated. Recently, we have been exploring how the “Benefits Dependency Network”, a tool that we developed as part of the Cranfield Benefits Management process, might be used in assessing and evaluating innovative deployments of technology.

Is there a maturity model of organisational IT innovativeness?

The Capability Maturity Model (CMM) for software development is now widely accepted and has become established in many organisations. This research project will explore whether a similar model for IT innovativeness can be developed, enabling organisations to assess the sophistication of their innovativeness. The research will seek to uncover what its components are. In constructing a maturity model it is likely that the determinants of IT innovativeness will need to be identified. What actions and best practices can be identified at each level, particularly those that can assist in moving from lower levels to higher levels?

Project timetable and Fees

The project will commence on 1 May 2006 and will run for twelve months. Once the project is underway, workshops will be held at regular intervals to present and discuss the overall findings as the study evolves. Documents and findings will be made available through the Cranfield IT Business Value Resource Centre.

Fees for participating in this project are as follows:

£10,000 + VAT to sponsor the project and become a member of the ISRC

£9,500 + VAT to sponsor the project only

£7,500 + VAT to existing ISRC Members, unless chosen as your ‘free project’ for 2006.

Contact

If you have any queries about this project and how participation might benefit your organisation, please contact:

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