

THE DISRUPTED UNIVERSITY – “LESS IS MORE”

Within 5 years most Australian and New Zealand universities will be running significantly less IT infrastructure than they are now and some will be running virtually none at all. Contrary to accepted wisdom, this will substantially increase the role and influence of the CIO as it will free him or her up to undertake their most important role, namely that of working closely with their Senior Executives to innovatively apply IT to the core business of the university. As the poet Robert Browning first suggested in 1855 and the early architects of the minimalist design movement knew only too well “less is more”.

In 2011, the median IT expenditure as a percentage of total university revenue reduced by 0.3% over the previous year for Australian and New Zealand universities. This has translated into real reductions in IT budgets in many universities and there is no evidence that this downward trend will be reversed in 2012. “Business as usual” ceases to be an option after a year or two for CIOs faced with the need to continuously cut costs. More radical solutions are required and in an environment of continual cost cutting, they will be entertained and adopted. Many CIOs in commercial organisations are now embracing disruptive technologies to allow them to deliver within diminishing budgets.

At the moment, university budgets as a whole are under pressure from the high value of the dollar, from reduced spending by governments whose own budgets are under pressure and from increased competition in overseas markets which have traditionally been the source of international students. At the same time, Massive Online Open Courses (MOOCs) have begun to challenge the traditional business model of universities. In Australia, first year university subjects, often characterised by large cohorts for lectures, are cheaper to deliver than more specialised subjects later in a course. Some MOOCs could be considered to look somewhat like first year subjects and it would only take an agreement by one or two universities to accredit one of them for this to be an interesting challenge to university business models. So, IT budgets will not be saved by increasing university revenue.

In their 1995 paper, “Disruptive Technologies: catching the wave”, Joseph Bower and Clayton Christensen from Harvard, introduced us to the concept of a technology that eventually overturns the existing market order after what may have been a slow or unpromising start. They called it disruptive technology. There have been many examples; the telephone which started life as the electric speaking machine with Western Union declining to buy the patents from Alexander Graham Bell; and digital

photography which despite starting out with low picture quality and poor resolution, has come to dominate its market.

Many have started to become accustomed to the disruptive nature of Cloud Computing. Disruptive because it has, and will continue at an increasing pace, to significantly disrupt the way we deliver IT infrastructure, software and applications; and because it is redefining the nature of the IT market. It is the sheer scale of public cloud computing offering practically unlimited capacity on demand that will drive this disruption, but to date mass take-up within universities has been held back by concerns of security, jurisdiction, network access and cost. The first three of these will be solved within the next year and costs will continue to reduce as the scale of the cloud service providers increases rapidly.

Within the next five years, it will be more cost effective to use the cloud than to provide IT infrastructure internally within universities and the other barriers to use will have fallen away.

What does this mean to the CIO and the University IT department? Those IT departments that have concentrated on the provision of IT infrastructure will significantly reduce in size, whilst simultaneously improving their service delivery. For the CIO, freed from the need to directly deliver and support IT infrastructure, there will be much more time available to identify the benefits that a university might gain from applying the IT services available from the cloud, to the improvement of the activities and services of the university itself. CIOs who are successful at this will be those who spend some of this time with their institutional senior executives contributing to the overall strategic direction of the university.

There is emerging evidence to show that this is already occurring. A recent report from CA Technologies on the "Role of the CIO" describes the results of research amongst global CIOs, including many in Australia. One of the most intriguing results was that approximately 93% of Australian CIOs, who have adopted cloud computing, see their position as an opportunity or stepping-stone to other management roles compared to only 30% of the non-cloud adopting CIOs surveyed. Other interesting results were that 57% of Australian CIO's believe that cloud computing is shifting the focus of the CIO role away from primarily technology and onto vital business services increasing their chances of promotion and that 60% agree that cloud computing has enabled them to spend more time on business strategy and innovation.

This trend is also occurring in other industries with the head of an accounting practice recently reporting that the use of a cloud based financial system by both her clients and the firm, had allowed them to transition from a position of purely auditing to one where 60% of their time could be spent on providing strategic advice to their clients.

Ironically, there is a danger to CAUDIT from these changes. As CIOs become more integrated in their university's strategic endeavour, they may be less inclined to collaborate and share best practice.

This presentation will explore and communicate these ideas with examples to illustrate them and will suggest the likely future role of the CIO and how this will affect the composition of the IT workforce in Universities.

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