**Katz, R, N. The Tower and the Cloud.** **Higher Education in the Age of Cloud Computing. Educause 2008. (www.educause.edu/books/).**

 This book explores how cloud technologies and applications are impacting university life and examines the profound influence these technologies are likely to have in the future. This is a well written thoughtful article offering an interesting historical perspective, it explores the establishment of universities and there connections with monastic life from their roots as safe repositories of knowledge. It develops the narrative by examining various threads that have influenced Western higher education’s development and the interplay of history, tradition and technology that characterises today’s universities. It examines the academy as an artisan community, “Brown and Duguid argue that successful academic communities are inhabited by people who share common tasks, obligations, and goals” (Brown, J, S. & Duguid, P. 2000). The discussion moves on to the fundamental argument that academic practice was originally organised around scarcity. The modern Western university and college evolved largely from the libraries and scriptoria of the 6th century, which served to select, collect, copy, preserve, and protect the textual record of European life. The medieval university was a majestic place designed to be a place apart which fostered fellowship, collegiality, and reflection. (TCD with its enclosed campus springs to mind) This contrasts sharply with the instantaneous and all-encompassing nature of the availability of information today. The author argues that historically universities have three missions, “Instruction, research and service to society and to the college’s political patrons” (Pfeffer, T. 2003).

The book methodically examines how current trends are likely to evolve and how this may change and influence tertiary education. The authors support the position that the Internet, as a vehicle is driving collaboration in tertiary education, with a great increase in communication and co-operation of scholarly results. The Human Genome project is described as an example of scholarly co-operation, with hundreds of scientists from many different countries collaborating over the Internet.

The focus of this book is by necessity wide, cloud based computing will have extensive ramifications due the geographically unrestrained character of cloud computing. The authors attempt to address how universities can respond to this challenge and opportunity, while “maintaining the coherence of its mission” (Katz, R, N. P.10) .The book describes the difficulty of forward planning in a very fast moving and tumultuous IT environment, and how planning strategies for services required by faculty, students and staff in the context of the wider set of unfolding external conditions are to be formulated.

A major thread discussed is the observation that Academic activities are bundled, for example students pursuing a business degree cannot choose to opt out of the subjects they don’t like. Bundling academic subjects into programs and courses allows institutions to include important subjects in a overall degree course which are important, but may due to contemporary politics be out of favour at a particular time (this could be banking or accountancy in the current climate), or it could be maths or science based subjects in the recent past. The growing demands for more transparency and accountability are examined, especially in the light of growing requests to justify taxpayer funding and value for money. Colleges are coming under pressure to produce metrics of graduation rates and costs so as to allow consumers to compare and contrast third level institutions.

The book helps to explore how possible scenarios may unfold, it highlights the degree of difficulty inherent in trying to forecast in a fast moving and unstable situation, nevertheless the authors still highlight, various trends that are likely to influence the development of third level education. The authors introduce a novel response to budgetary limitations and IT provision; this comes in the structure of groups of third level institutions pooling resources to jointly develop the software that each requires, the great advantage of this initiative is that they are creating software directly tailored to their own requirements.

In page 2 the author discusses the Iterant educator of medieval times who travelled to the students to impart knowledge on a specific subject, he draws parallels to this with developing practice, in that students will have the ability to use their social or academic networks to source only the academic programs they want. The author makes the point that “faculty free agents” (P 17), will have the ability to customize or personalise their education as they see fit.

The contention is made that one of the biggest challenges to higher education in the short to medium term is that although budgets will stay flat or decline, demand for IT services will grow. Another drawback described is the possible creation of a demand pull college environment, one in which the students by the nature of the easy obtainable and vast information resources available to them can effectively have an“a la carte approach” to the programs they wish to cover.

The book raises the question of how it has become increasingly difficult to predict the influences of IT in higher education.

The effects of a cloud based computing environment on 3rd level education will be profound, the author makes the point that many in-house services will be contracted out, from data storage to network services. This will raise many additional issues such as security, reliability, privacy, and ownership, for example if databases are contracted out, can a college be assured that such practises as data mining and profiling student information are not going to take place on confidential student records. Taking advantage of cloud services will be neither easy nor without risk (P 26), effective strategic IT management policies and strategies must be conceived as a method of reducing and dealing with some of the negative outcomes that are bound to become apparent alongside the many benefits that will accrue.

Cloud computing may well be a double edged sword, by allowing outside vendors to supply computing, major efficiencies and the latest software updates maybe enjoyed, but alternatively there is the risk of getting tied into a supplier who will have too much power to dictate price and service levels. An organisation may also be exposed to vulnerabilities in the areas of privacy and security. In conclusion the author quotes from MIT President Charles Vest’s vision of a metauniversity, a “transcendent, accessible, empowering, dynamic, communally organised framework of open materials and platforms on which much of higher education worldwide can be constructed or enhanced (Vest, C. 2008).

This book helps to put mobile learning, hybrid learning and elearning into a better perspective, the influences that are driving change have become clearer to me, the book refers to IT’s capacity to cut its own channels, this is analogous to glacial activity, although a lot faster moving. The combination of budgetary pressures and IT has the strength and influence to command change, in tertiary education. This compels those involved in higher education to become critically aware of the change that is bearing down on third level education.

**References:**

1. Brown, J, S. & Duguid, P. 2000. The Social Life of Information, Cambridge, MA: Harvard University Press.
2. Pfeffer, T. 2003. Virtualization of Research Universities: Raising the Right Questions to Address Key Functions of the Institution, Paper CSHE6-03. Berkeley, CA: Centre for Studies in Higher Education.
3. Vest, C. 2008. “On-Demand Computing: A brutal Slog,” Business Week, July 18, 2008.