

## **eLearning – Back to the Future?**

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In 1994 there was a meeting in Lund between representatives of the British Computers in Teaching Initiative and Swedish academics interested in the application of communications and information technologies to university education. The theme of the meeting was the University of the Future – the future being defined as the relatively close 1998.

One of the highlights of the meeting was a presentation by Jonathan Darby and Bengt Kjällerström, imagining “one day in the life of a typical student of 1998”:

### ***"A Typical Day in the Life of a Student in 1998"***

*The first thing Carlos does after breakfast is check his email. There are the usual multimedia advertisements . . . , a voice message from his tutor and an annotated copy from Jane of the first draft of their joint project.*

*His workstation . . . connects to the academic network using the facilities of his cable TV company. He turns to his unit on Company Ethics and opens a video window to see and hear the presenter as well as the presentation notes window. Carlos stops the presentation every now and again to make his own notes next to those of the presenter. Sometimes he repeats a section and if he is still not clear he seeks further help through the "explain" icon.*

*At 10 he breaks off from study to go to work. Much of his work is done from home, but today he has a number of in-the-flesh meetings to attend. Carlos is completing his HE in a way that has become the norm, combining it with work. He receives a full-time salary but his work hours are two-thirds of normal. The remainder of his time is spent studying. His employer receives a grant . . . to cover the cost of his study.*

*Higher Education is now totally modularised: Carlos's degree is made up of variety of different types and lengths of modules, most supplied through the Open Network University. The ONU is **international**.*

*In the evening Carlos has a seminar with his tutor and 5 other students in a virtual classroom, using teleconferencing. A lively discussion ensues on the ethics of insider dealing and very quickly the distance between the participants is forgotten.*

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*Carlos's tutor works in an old-style university but teaches part-time for the ONU. As an author she started by transferring some of her existing courses to the new media but soon realised that she could now include material she had previously considered too difficult by taking advantage of the added interaction now available to her and the ability to cross reference other materials.*

*Higher Education has become increasingly competitive. Students can assemble their degree courses by taking modules from a variety of providers. An informal course assessment system has sprung up on the Web and potential students can check the comments and ratings of past students before selecting a module.*

*Carlos is enthusiastic about his mode of studying. He finds it hard to conceive how his parents sat through several hours of lectures a day when they were students, shut away from normal community affairs in a campus. He has the freedom to study **what he wants, when he wants it, where he wants it.**"*

Darby and Kjällerström (emphases added)

### ***Back to the future***

How does the picture presented in 1994 compare with today's reality?

The participants of the 1994 Conference are, I think, to be congratulated on their prescience concerning the impact of the World Wide Web. It is, perhaps, difficult to recall just how recent the development of the Web has been and the number of world-wide users at the time of the 1994 Lund Conference was but a small fraction of those potentially connected today. The emphasis on the change from the traditional teacher-led form of education to one based on student learning is also to be admired. At the same time it is also clear that the development has not been as rapid as the pioneers predicted. Although it is possible for students to study in the way described, it is very far indeed from being typical. Three years after the date featured in the prediction it remains difficult for students to study what they want, when they want, where they want. Why is this?

At least in the Western World – Europe, North America, Australasia, Japan and a number of the island states of Southeast Asia – the infrastructure of the Internet has become widely available. Even here, however, there remain obstacles to access that need to be overcome if everyone is to have an equal chance of taking up the opportunities provided by eLearning. At least according to some observers (e.g. Schiller, 1996), the distribution of information in western societies is tending to become more uneven, with major sections of society – the poor, the homeless, the elderly, the handi-capped, members of ethnic minorities - becoming progressively excluded through lack of access to facilities which are taken for granted by those in the mainstream.

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Elsewhere in the world the surface has barely been touched and the growing information gap between the first and third worlds has become a major topic of international concern.

Differences in access to information have always characterised human society. What is distinctive about the information gap of the early third millennium is the importance of information itself as a means of participating in a rapidly changing society. Growing information gaps, whether between rich and poor countries or between groups within countries, not only exclude large numbers of people from participation in the developing Knowledge Society, but also threaten the stability of existing social systems. I would argue that is part of the social responsibility of higher education institutions that they take an active role in trying to overcome the information gap.

eLearning provides an opportunity for universities to reach out into the community, reaching parts of society which have previously had little contact with higher education. These include those who are excluded from participation through reasons of geographic location, poverty, ethnic or religious discrimination, overdemanding household duties and those whose physical disabilities make attendance at face-to-face classes an ordeal. For all of these the Web is, potentially, a portal to social inclusion:

“On the Web, no-one knows if you’re a dog”

### *Barriers to access*

**Remote and rural areas:** It is often assumed, even by geographers, that the spread of mass communications has led to the dissolution of geographic inequalities in Western societies. To residents of such areas as Lapland, the Highlands of Scotland or the peripheral islands that form part of many European countries, such an assertion has little validity. Although it is true that the spread of satellite-based communications channels does hold the promise of connectivity, the promise has still to be translated into general reality. Until it is and broadband access is as cheap and easy to obtain in, say, the Outer Hebrides as it is in a cable-rich metropolis, geographic marginality will continue to equal information inequality. There is a role here for European universities, making use of eLearning to make higher education available in situ to those who cannot afford to leave home to attend classes elsewhere. The ability to study where one wants will be one of the great benefits of the Knowledge Society. To translate the promise into reality is likely to require collaboration rather than competition between providers. In the process it may be hoped that Universities will see the potential of eLearning to help in the building of local communities rather than as a way of providing a preparation for emigration for those who wish to play on a larger stage than their current home apparently provides.

**Poverty:** Poverty remains a barrier to participation in both on-line and off-line forms of education. It is not just that participation in education may itself involve the payment of fees and other costs and requires the learner to take time out from other potentially-rewarding forms of activity, but those suffering from poverty are unlikely to have access to an environment which is conducive to learning. Even in countries where a majority of households have access to the Internet there remain significant minorities who do not have sufficient resources to afford their own PCs and connections or to provide the other facilities that characterise a supportive learning

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environment. To overcome this obstacle universities may need to collaborate with local authorities and other agencies in the provision of IT cafes and other open study centres. The question of who pays for education is, clearly, a major issue which is beyond our present concern, but access to and take-up of eLearning will be as affected by charging policies as any other form of education. As the International Federation of Library Associations (<http://www.ifla.org/>) points out in a policy paper on the social responsibility of libraries:

*“Information is more than a commodity; wide access to information can empower citizens and therefore be a method of wealth distribution”*

Inevitably, educators find themselves involved in an essentially political activity.

**Cultural factors:** ELearning is frequently promoted as a means for breaking-down barriers between cultures. The danger with this is that by ignoring cultural differences eLearning may become another potent form of cultural imperialism. The European Union stresses the European “added value” of the IT activities it supports – but is rather hesitant to say what his value consists in. The dominance of English on the Web is not, perhaps, as great as it was say two years ago, but the majority of Web pages continue to be expressed in one or other variant of the language. Globalisation has its supporters as well as its detractors: the ability to communicate across cultural boundaries has the potential to reduce misunderstandings and online communities can span national barriers. At the same time, the fact that much eLearning requires knowledge of a non-native tongue imposes a further hindrance to the internationalisation of education. The Hitchhiker’s “babel fish”, able to offer instantaneous and correct translation from one language to another, is eagerly awaited. Even when there is agreement that a particular eLearning module is to be conducted in a common language there are many other pitfalls which need to be avoided for learning to be a genuinely collaborative activity. The greater the cultural differences involved the more likely these pitfalls are to be encountered.

**Disabilities:** The Internet has especial appeal as a medium of communication to all those who for one reason or another find face-to-face interaction problematic. This includes people with a variety of physical and social disabilities. It is, however, all too easy for the designers of eLearning activities to forget the needs of those whose access requires special provision, such as braille converters, screen to type systems, text to sound translators, and so on. National requirements for the abolition of barriers to educational access by those with physical disabilities have major implications for the design of eLearning systems that have to-date concentrated on screen-based resources. Design-for-all means just that.

**The house-bound:** A reduced capacity to engage in face-to-face interaction outside the home also characterises many individuals who find themselves house-bound. This includes a large number of care-givers, such as parents with young children and those looking after the chronically sick or frail elderly people, as well as those who are confined to their home as a result of physical or social handicaps. It is to members of these categories that the promise of eLearning to deliver education where and when it is wanted is perhaps of greatest benefit. They may not, however, figure prominently in the priorities of Universities that have to prove their financial prowess as much if not more than their social responsibility.

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### ***What of the future?***

The spread of the Internet, the development of the World-Wide Web, the growth in interest in Web-based learning among educational providers and policy-makers, suggest that the next few years will see a major step forward in the provision of opportunities designed to enable learners to study what they want, when they want it, where they want it.

According to Paul Levinson (1989):

*“Computer-mediated communication, and the advent of personal electronic interactivity in general, rank with the alphabet and the printing press as signal developments in cognitive media. ... Alphabetic manuscripts and books were the first realisations of this aspiration, for the reader of the book is in communion with its author, regardless of where and when the author lived. But the connectivity of the book pales in comparison to the possibilities of CMC. ... So compelling and promising is this creation of a real (not just metaphoric) global mind, so energising of the intellect is the ability to express oneself from any place and at any time, that I believe educational institutions will either learn how to effectively integrate this new tool, or fail in the next century.”*

It remains the case that, in responding to new markets for life-long learning, higher education needs to consider the social implications of its activities. A focus on the financially-attractive market in continuing professional development may have the unintended effect of increasing the gap between the information elite and the information poor. A concentration on the use of eLearning, study centres and other access provision may provide the means for those with aspirations to escape from the confines of their localities, but may impoverish the local community. If universities are to provide a responsible service to their communities, they will have to consider the social impact of eLearning as well as attending to its pedagogical effectiveness. In the longer term universities need the support of society at large and ensuring that they become fully integrated and valued parts of their local communities may turn out to be a significant factor in ensuring continued support.

The ability of the Internet to support interaction between people who may otherwise have great difficulty in meeting provides a unique facility. The development of virtual communities – real in every sense apart from the fact that they exist in cyberspace rather than geographical space – provides clear evidence of the ability of C&IT to support new forms of community. The challenge for eLearning providers and community developers is to how to harness this ability to the task of enhancing social capital.

### ***Online Learning Communities and Social Capital***

The terms community and social capital are central planks in the attempt of the social sciences to explore the relationship between individuals and wider society, yet remain difficult to define.

There are a large number of definitions of community in the literature, but the core of the concept relates to the existence of on-going networks of social relations bound together through

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common interest or shared circumstances (such as location). The Internet provides a fertile medium for the growth of new forms of virtual community. Rheingold (1993, p.5) notes that:

*"Virtual communities are social aggregations that emerge from the Net when enough people carry on ... public discussion long enough, with sufficient human feeling, to form webs of personal relationships in cyberspace."*

Describing the experience of participating in one of the earliest on-line communities, the WELL, Rheingold (1993:3) observes:

*"People in virtual communities...exchange pleasantries and argue, engage in intellectual discourse, conduct commerce, exchange knowledge, share emotional support, make plans, brainstorm, gossip, feud, fall in love, find friend and lose them, play games, flirt, create a little high art and a lot of idle talk. People in virtual communities do just about everything people do in real life, but we leave our bodies behind. You can't kiss anybody and nobody can punch you on the nose, but a lot can happen within those boundaries."*

Hawthornthwaite et al (1998, p. 213) note that "Virtual communities extend the possibilities for community; just as CMC extends possibilities for interaction." Online communities that are associated with face-to-face communities provide greatly enhanced possibilities for community building. Paradoxically, the rise of a form of electronic communication which is largely independent of place (Wellman, 2000) may provide the infrastructure for the evolution of a new and more vibrant form of community. It is this understanding which informs the development of community networks: the use of computer-based networks to serve the population living in a particular geographical area. Community networks have been praised as providing a means for improving democratic political processes, stimulating self-help and local pride and encouraging learning. Gulia and Wellman, in *Net Surfers Don't Ride Alone* (1999) point out that communities formed online frequently possess strong ties: they combine voluntary participation with a sense of comradeship, can exist over long periods of time, are sensitive to individual needs and are based on shared interests and circumstances. When online networks connect people living in local communities they provide an added channel of participation. It is in this context that local communities online can be seen as contributing to the enhancement of social capital, "connections among individuals - social networks and the norms of reciprocity and trustworthiness that arise from them" (Putnam, 2000, p.19).

The enhancement of social capital has become an important strategy of social policy, lying at the root of the communitarian movement (Etzioni, 1998) and forming a key element in efforts by Western governments to overcome problems of social exclusion and societal fragmentation. Elearning provides one of the most powerful weapons in the struggle to preserve and enhance social capital among disadvantaged individuals and marginalised communities. The challenge for higher education is to seize the opportunity presented. It seems likely that this will involve the full-scale adoption of the approaches foreshadowed in the 1994 Lund Conference: a move from teacher-centred to learner-centred modes, from individual study to collaborative activity and from the physical class-room to cyberspace.

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In order to enhance social capital in their surroundings, higher education institutions will need to consider community initiatives as well as the provision of opportunities for individual learners. One way forward is for universities to become involved in local community networking activities, perhaps along the lines of Blacksburg Electronic Village (<http://www.bev.net>), serviced by Virginia Tech (Cohill and Kavanaugh, 1997). Active participation in community nets can be seen as the twenty-first century equivalent of the involvement of university continuing education departments in settlements and “university houses”.

Kollock (1998), while noting that “There is no algorithm for community”, suggests a number of guidelines for the development of on-line communities, derived from work on interpersonal cooperation and social dilemmas. Among the points mentioned are the importance of individuals sharing information about each other, ensuring continuity of interaction, allowing sufficient time for people to express themselves, sharing interests and having self-administered rules and sanctions. Perhaps more controversially, he also suggests that the presence of some risk may be useful: “without risk online communities will be dull and will not provide the possibility for the development of high levels of trust”. Adaptation of these principles to the creation of online learning communities provides the basis for a new pedagogy for distance education and will provide an essential underpinning to attempts to develop a socially cohesive eEurope.

It may still be too early for the full-scale development of the modularised, Web-based learning predicted in the 1994 Lund meeting. For the foreseeable future it seems likely that higher education will include a major component of face-to-face activity in conventional class-rooms; increasingly, however, students will want to combine campus attendance with other forms of learning, principally those based on the Web, dipping in and out of education as their careers and lives develop. The development of life-long learning places major demands on educational providers, but also presents them with tremendous opportunities. In extending their educational activities off campus and engaging with their communities, universities have the opportunity to contribute widely to the development of an inclusive knowledge society, building social capital as well as meeting individual aspirations.

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### **REFERENCES**

- Cohill, M. C. and Kavanaugh, A. L. (1997). *Community Networks. Lessons from Blacksburg*. Norwood: Artech House.
- Darby, J. and Kjällerström, B. (1994):
- Etzioni, A. (1998). (Ed.), *The Essential Communitarian Reader*. Lanham: Rowman & Littlefield.
- Kollock, P. (1998). Design principles for online communities. Harvard Conference on the Internet & Society. Also published in *PC Update*, 15(5): 58-60. (Online at <http://www.sscnet.ucla.edu/soc/faculty/kollock/papers/design.htm>).
- Levinson, P. (1989) "Media Relations: Integrating Computer Telecommunications with Educational Media". In Mason, R. and Kaye, A. (eds): *Mindweave: Communication, Computers and Distance Education*. Bletchley: Open University.
- Putnam, R. D. (2000). *Bowling Alone: The Collapse and Revival of American Community*. New York; Simon & Schuster.
- Rheingold, H. (1993). *The Virtual Community*. Reading, Mass: Addison-Wesley. (Updated edition online at <http://www.rheingold.com/vc/book/>).
- Schiller, H.I. (1996). *Information Inequality: The Deepening Social Crisis in America*. New York: Routledge.
- Schuler, D. (1996). *New Community Networks: Wired for Change*. New York: ACM Press.
- Wellman, B. (2000). Physical place and cyberplace: the rise of networked individualism. *International Journal of Urban and Regional Research*, December, 2000. (Online at: <http://chass.utoronto.ca/~wellman/publications/individualism/article.html>).
- Wellman, B. & Gulia M. (1999). Net surfers don't ride alone: Virtual communities as communities. In P. Kollock & M. Smith (Eds.), *Communities in Cyberspace*. London: Routledge.