UKeU AND SWEDEN'S NET UNIVERSITY. A COMPARATIVE STUDY.

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Abstract: In this position paper the authors compare and contrast two large scale government initiatives to increase online learning in higher education. Both initiatives began around the same time and similar amounts of money were expended. In February 2000 the British government established the UKeU (*UK eUniversities Worldwide Limited*). The aim was to create 'a single vehicle for the delivery of UK universities higher education programmes over the internet'. The Government allocated GBP62 million to the Higher Education Funding Council for England (HEFCE) for the project over the period 2001-2004. On 28 February 2004 the HEFCE effectively scrapped the UKeU after spending just on GBP50 million. UKeU had managed to attract 900 out of a projected 5, 600 students. A House of Commons Select Committee (March 2005) damned the experiment as a 'terrible waste of public money'. At the beginning of 2002 the Swedish government also allotted a large sum of money (in total SEK470 million) to create the Swedish Net University. The Net University is still in existence and acts as a portal for students wishing to study online. Despite the name it is not a university with academic staff. A small number of technicians and administrators look after a website where students can search for and enrol in courses offered by universities who cooperate in the Net University venture. Its base consists of 35 participating universities. Online course offerings (subjects) have risen steadily from 1,000 in the first year to just over 3000 in 2007. Today about 80 full programmes have been registered. In this paper we study the reasons for the success of Sweden's Net University and compare it with the failure of UKeU. In our conclusion we make a number of recommendations and point out some important lessons that can be learned from a comparison between two large scale government e-learning initiatives

Index terms: Online learning, higher education, government policies, comparative education.

INTRODUCTION

In the last five years of the twentieth century confidence in the economic potential of the internet was enormous. There was a rapid increase in the value of internet related shares on stock markets and a corresponding increase in the number of so called 'dot-com' companies. These companies included online retailers and service providers. Some were existing companies that extended their storefront operation by taking orders over the net. Many were start up companies backed by venture capital. If one had a good enough idea (the book company Amazon is a good example) then there were capitalists ready to back it. The dot-com bubble, as it came to be called, reached its greatest extent and then burst (numerically) on 10 March 2000. The NASDAQ composite index for the period 1992-2005 provides a graphic illustration of the rise and subsequent crash of technology related stocks (see diagram below).

The crash ushered in a moderate but lengthy recession in the western world.[1] Many small companies went to the wall and governments and universities that had backed online expansion in higher education were badly burned. The British government, for example, had decided in February 2000 to commit GBD62 million for the establishment of an online university. The idea was to provide capital for what was seen as a commercial venture. Four years later after spending GBP50 million of the alloted money the Higher Education Funding Council for England (HEFCE) was forced to close down what had become known as UKeU. As one witness to the House of Commons inquiry that followed this debacle said 'At the height of the dot-com era there was also a sense of urgency that if you didn't strive to take your share in this global market straight away, you would lose out'. David Young, Chairman of HEFCE, confirmed this assessment when he also gave evidence at the Committee of Inquiry. He pointed out that the mood in government and elsewhere was such that people felt the greater risk lay 'in failing to grasp the opportunity to make immediate progress on developing the UK as a major player in delivering e-learning to a global market'.[2] In the United States, Canada, Australia and other so called 'developed' countries universities saw the use of the internet as a good way to expand their student numbers, both at home and abroad. The Open University, which was established in Milton Keynes, England in 1972 had demonstrated how profitable traditional distance education could be. It was felt that the internet, with its capability of providing both synchronous and asynchronous communication in a

variety of media, would attract a whole new set of learners. Universities who delivered courses in English (the language of the net) had a decided advantage in reaching a global market. By 2000, a number of on-line learning ventures had been launched.

TABLE 1
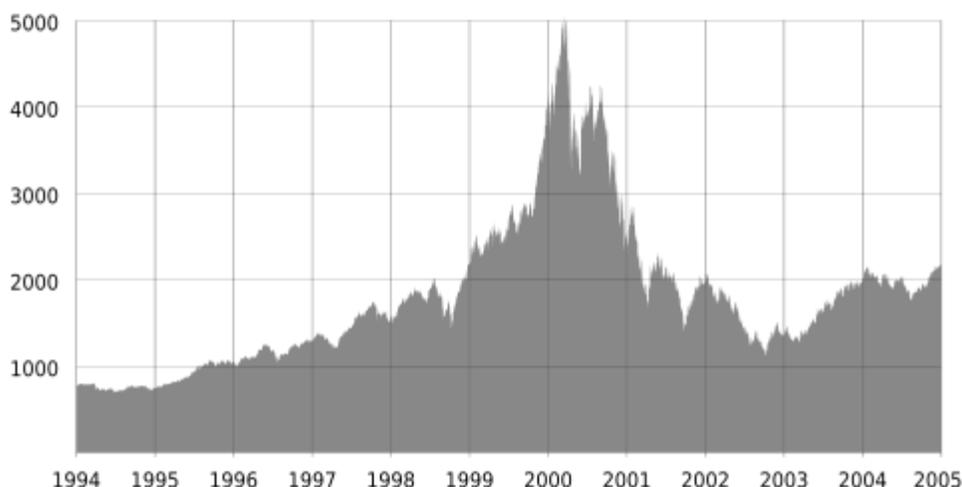
The technology-heavy NASDAQ Composite index peaked in March 2000, reflecting the high point of the dot-com bubble.[3]

In the US.the Western Governors' University, Pheonix University, NYU Online, Virtual Temple, Matryland University Online and e-College were a few examples. It is clear from testimony given to the Select Committee on Education and Skills (third report 2005) which investigated the UKeU, that the UK government felt pressured to step in when it came to online learning rather than leave it to UK universities to compete in their own right. The then Secretary of State for Education, David Blunkett, argued that the role of the e-University project was to 'concentrate resources from a number of partners on a scale which can compete with leading US providers'.[4]

This paper focuses on two government initiatives but it should be noted that universities that rushed to go online also lost large amounts of money. Two interesting cases, given the UK government's aim to preempt a loss of British students to US based universities, are Fathom and the AllLearn projects. Both were cooperative ventures between leading British and US universities. Fathom was set up by Columbia University and the London College of Economics but closed a few years later in 2003 despite attracting 65,000 students to more than 2,000 online courses. A total of USD25 million had been invested. In 2001 Oxford, Yale and Stanford, launched an e-leaning venture that they called the AllLearn project. Its demise was less spectacular than that of the UKeU. There was no inquiry but in March 2006 the three universities announced discreetly that the AllLearn project was to be discontinued. According to the Observatory on Borderless Higher Education, AllLearn was backed by USD12m in start-up funding'. Oxford did not disclose its losses but we know that at the end of the 2005 financial year the total revenue from the project had been USD2.5m and expenses amounted to USD3.28m, a loss of more than three quarter million US dollars. A spokesperson for AllLearn claimed that it 'operated on a budget that is much smaller than many other online education ventures' a claim that is borne out if we consider that the New York University invested USD25m to establish its distance learning company NYU Online which ceased operating in 2001'.[6] What is particularly interesting about the AllLearn experience is that some of the reasons given for its failure, for example underestimating the costs of designing online courses and overestimating the number of students interested in paying for them, are repeated in the UKeU inquiry.

In terms of infrastructure Sweden was in a good position to provide online learning. At the start of the 21st century time the Economist Intelligence Unit ranked Sweden first among twenty nations as the most ready to deliver online learning. [7] Despite this Sweden did not join the turn of century rush to create an online university. As in the UK there was already a type of Open University that provided distance education to Swedish students in remote areas. However it was not until the beginning of 2002, well after the dot-com bubble burst, that Sweden committed a total of SEK470 million to create an institution called the Swedish Net University. The Net University had similar aims as UKeU although it saw its market for the most part as domestic rather than international. Its history, financing, development and continued success is in sharp contrast to the UKeU venture. In this paper we use historical method to describe and analyse the UKeU and Net University

experiences and on the basis of this analysis indicate some important lessons when it comes to giving students access to online courses in higher education.

THE FAILURE OF THE UKeU

Most of the information concerning the history of the UkeU venture is based on primary documents,and in particular, on the third report of the Select Committee on Skills and Education, published in UK Parliamentary Papers in 2005. In that report the financial history of the UKeU is summarised as follows:

> UK e-Universities Worldwide Ltd (UKeU) and e-Learning Holding Company Ltd were established in 2001. In September 2003 UKeU launched its first programmes, attracting just 900 students against a target of 5,600. On 25 February 2004, the HEFCE Board decided that in future HEFCE funding should support the development of e-learning in universities and colleges—in effect the HEFCE terminated UKeU. £50 million out of the Government's allocation of £62 million has been spent on the project. [8]

The reasons why UKeU failed are complex. It was conceived as a commercial project. in which government start up money would be used to woo private enterprise. The money was placed with HEFCE which employed a consultancy firm, Price-Waterhouse, to devise a business model. In 2001 HEFCE created a holding company (Hold Co) and appointed a board of directors. It also created an operating company, UK e-Universities Worldwide (UKeU) with the intention of offering equal shares to private andpublic investors. HEFCE appointed the Hold Co board members and managed to get all but four Higher Education institutions (HEIs) to participate in the project. They did this mainly via a licensing agreement that enabled UKeU to place their courses online. The Select Committee report notes that 'When UKeU was established equal shares were given to the public sector shareholders (HoldCo) and the private sector shareholders (Guillemont and Croft Nominees). Over time, however, as more public funds were invested into UKeU, Hold Co became the far more dominant shareholder. The original terms gave Hold Co limited power over UKeU but when the next public investment was made there was no corresponding private investment. This meant that the sole investor, Hold Co had limited power and UKeU too much freedom to do as it wished. Apart from the alliance with Sun Microsystems (see below) no worthwhile private partners were attracted to the company and many of the HEIs began to pull out as it became clear that the UKeU would not succeed.

Another problem was that the project was simply too ambitious from the start. In its original charter, outlined in the 2001 Grant Letter that enabled HEFCE to administer the funds, it was clear that a key idea of UKeU was to make tertiary education more accessible to people. Working people, immigrants, students in remote centres, the unemployed and anyone deserving of a second chance to study were included in what was seen as important social and domestic aspects of UKeU. Overseas markets were to be considered of course. The original business plan forecast rapid growth to 110,000 students within the UKeU's first six years, reaching over 250,000 by Year 10. Revenues were forecast to grow commensurately, breaking even by Year 5 (2006-07) and generating gross profits of more than £110m by Year 10. Exactly how these figures were generated is hard to understand since there was no systematic evaluation of the market. UKeU deviated from the terms of the Grant Letter by ignoring the social and domestic aspects of its mission and focussing almost entirely on an overseas market. Despite this focus it lacked a realistic understanding of such consumer demand. Information was not gathered scientifically but as a result of anecdotal evidence heard by chief executives while on trips abroad or during their service on international bodies.

In the words of the third report 'this was typical of UKeU's supply-driven rather than demand-driven approach'.[9] To make matters worse UKeU decided to build its own integrated e-learning platform rather than to investigate the savings that might be made by using any number of existing commercial platforms. In October 2001 it formed a strategic alliance with Sun Microsystems Limited who were commissioned to build the platform. It is interesting to note that Sun Microsystems did not buy shares in UKeU. In 2003 PA Consulting reviewed the UKeU and concluded that none of the projected targets had been met. It provided a revised and far less ambitious plan that did not include private investors but this was rejected by the HEFCE board which wound up UKeU and transferred the successful e-China project to Cambridge university and the research into e-learning project to the Universities of Manchester, Southampton and the Higher Education Academy. GBP49.5 million had been spent of which £3m had gone to the e-China project, £1m to the e-Learning research centre, £2m to other types of research studies, and £1m to legal and business advisers. The bulk of the money had gone to wages, bonuses and other operating costs (£12.9m); technology platform development (£14.5m); learning programmes development (£10.9m) and ironically, £4.2m for sales and marketing.

One of the sums that came under close scrutiny during the inquiry was the amount of money spent on salaries and bonuses for top executives. For example the chief executive John Beaumont received a salary of £180,000 and a performance related

bonus of £44,914 despite the fact that the much touted learning environment (platform) was delayed by a year and no coures had been launched. As the report noted:

> Whilst the practice of large bonuses and share packages might be standard procedure in the private sector, UKeU ended up being an almost wholly publicly funded venture. The bonus scheme and potential share packages are examples of the anomalies that were caused by the fact that the structure and systems were set up under the assumption that private investment would be part of the project. When little investment was forthcoming, the structure and systems were not changed to reflect the circumstances in which UKeU was operating. At the very heart of the failure of UKeU was that systems and structures that may have been considered appropriate when set against the original plan became inappropriate for a venture that was almost entirely publicly funded. [10]

The question of public funding is an important one for this paper. Because taxpayers money was lost, the failure of the UKeU was not only broadcast but closely scrutinised. Unlike failures of e-learning enterprises in the private sector the UKeU case was investigated and some important lessons learned. One vital lesson was that e-learning can not just be about the technology or the media. Online learning must make use of an appropriate pedagogy. In this case there was much talk about student centred learning but in reality there was little on site support and not enough access to teachers who could not only answer questions but ask the sort of questions that would make students think, reflect and become motivated to learn. In summing up the Committee said that UkeU did not focus on research and development concerning the definition of e-learning, and it did not have a 'learner-centred' approach.

In his evidence to the Committee, Sir Anthony Cleaver, Chairman of UKeU said: 'From the beginning it was clear that to succeed we had to get three things right: the platform, the courses, and the marketing'. We would argue that the assumption that one needed to build a platform from scratch was flawed. The idea that one needed to handpick and even create tailor made courses for UKeU was another mistake. These errors were compounded and became unavoidable because at no time did the UKeU really know what the customer wanted. TheSelect Committee's criticism of the venture was severe but it hoped the UKeU experience would not make the government 'risk-averse' but rather encourage it in future to be more experimental before committing large sums of money. As an example the report suggested that if less ambitious and varied models of e-learning had been adopted in the early stages of the UKeU initiative they could well have pointed the way to a profitable, sustainable and pedagogically sound form of e-learning and laid the ground for the sort of large investment that was so hastily made during the dot-com boom. Mixed mode delivery could have been compared with purely online delivery in one or two universities. In July 2003, when things were clearly falling apart for UKeU, the HEFCE commissioned research into its e-learning strategy. Respondents overwhelmingly preferred 'blended learning' where online delivery was complemented by more traditional teaching and learning methods such as blocks of face to face tuition and set text books. The feedback emphasised that e-learning is a process and not a product. In the following section we show how Sweden, with two years grace, was able to avoid many of UKeU's mistakes.

THE SWEDISH NET UNIVERSITY

On 31 January 2002 the Swedish government passed a bill (SFS 2002-25) that provided funding to set up a Net University (NetUniversitet in Swedish). The Net University would be part of a new agency for networking and cooperation between universities (NSHU is the Swedish abbreviation for the agency). A Director General was appointed with sufficient staff to establish an internet portal and with sufficient funds to encourage universities to adapt existing courses for online delivery and register them with the Agency. SEK470 million was set aside for this purpose. In Sweden the government reimburses universities retrospectively for every successful graduate from the previous year. The exact amount differs depending on the subject. A successful pass in arts might attract SEK30,000 while a similar pass in say the first year of a physics degree could attract up to SEK80,000. The government, irrespective of the subject gave universities SEK90,000 for each successful pass in a course that had been put online. This naturally encouraged universities to put many humanities courses online while a university such as Chalmers University of Technology, which already received a high reimbursement was less interested. Some of the best represented disciplines online today are Law and the Humanities.

This special monetary incentive concluded at the end of 2004 but universities have continued to register courses since it has become a proven way of increasing student numbers, at least within Sweden. Universities can register single subjects or units of study or undergraduate programs. Most 'course' registrations (65%) involve subjects or courses of between 1 to 5 full weeks study. In Sweden, before the Bologna Agreement, 1 university point equalled one full time week's study. There are currently 94 longer 'programmes' that offer a suite of courses or subjects that constitute 40 points or more. According There has been a steady increase of courses registered with Net University since its inception. There are now over 35 universities or universtity colleges who have registered their courses with Net University. The leading three are the University College of

Dalarna (294 courses), the University College of Gävle (249 courses) and Mid Sweden University (227). Since its first calendar year in 2003 the number of registered courses has increased 52%. [11]

TABLE 2

The number of subjects or short and longer courses registered on the Net University				
Autumn 2002	End of 2003	End of 2004	End of 2005	End of 2006
1,200	2,050	2,625	2,700	3,126

A panel of assessors from the National Agency for Higher Education (HSV) reported on the Net University in late 2005. The assessment was for the most part positive. The report concluded that 'The overall impression of the panel of assessors is that the work of the Swedish Net University Agency is sound. In a short space of time its staff of 15 have initiated extensive activities that, in the panel´s opinion, have provided adequate support for the collaboration of the higher education institutions in Sweden´s Net University'.[12] During the first two years of its operation the Net University made some sums of money available to support commissioned projects. One example was the development of an online librarian service where university libraries cooperated to have someone on duty at all times to answer email requests and questions. Another was the design and implemantation of an online masters course for university teachers who wanted to know how to adapt their courses for the internet. Such initiatives had been framed on the basis of project proposals submitted to the Agency by the higher education institutions. During visits by assessors to a number of higher education institutions this practice was criticised. It was claimed that there had been a lack of transparency in the way in which the Agency distributed funding for development. The panel of assessors agreed with this criticism.[13]

In addition to its own assessment HSV commissioned the Umeå Centre for Evaluation Research (UCER) to evaluate the usefulness of the Net University from a student perspective. The evaluations took three years to complete (2003-6) and were in the main positive to the establishment and development of the Swedish Net University. All stakeholders were interviewed and not surprisingly prefects of studies in the relevant universities criticised the fact that special funding to help universities put their courses online, in the form of projects or increased revenue for online students, ceased in 2005. [14] As mentioned above the Swedish Net University is now part of an agency for networking and cooperation between universities (NSHU is the Swedish abbreviation). Some of NSHU's staff are directly involved with the Net University, providing technical expertise for the maintenance of the portal, course advice for students as well as information and to a lesser degree marketing of Net University. The function of funding special projects is now subsumed in NSHU's broader brief and in keeping with HSV's critique the proceedure for the disbursement of project money is more transparent. Funding that is available varies from year to year but the agency has about SEK 20 million per year to distribute to universities for cooperative, pedagogical projects, including information communication technology (ICT) and information technology distance education (ITD) projects.

SOME COMPARATIVE CONCLUSIONS

Today, if we took into account the Net University's SEK 47 million budget for 2002-4 and its running costs since then (about SEK150 million) and compared it with the amount spent on the UKeU, the overall cost for the two projects is almost identical - around SEK620 million or GBP48 million. [15] Both UKeU and Sweden's Net University had similar goals at start up. The British Grant Letter and the Swedish Bill that enabled funds to be moved to their respective Higher Education Agencies stated clearly that the initiatives were to broaden recruitment to Higher Education, allowing those who were prevented from attending on campus courses because of distance, work commitments (at home or on the job) or other hindrances to enrol in a university course.[15] Today, in 2007, the UkeU is a bitter memory. Its most positive contribution, according to the Select Committee that enquired into its demise, is that it has taught us some important lessons about providing university courses online. The Swedish Net University is going strong, with a moderate but steady increase of Swedish students who register to take courses via its portal (around 8% of the total university enrolment). Why were the Swedish and UK experiences with online universities so different? What can we learn from such a discrepancy?

The first point to note is, that in the British case, monies were actually disbursed, first to a holding company and then, as shares, to a private company, UKeU (*UK eUniversities Worldwide Limited*). English universities were encouraged to come on board (literally) and to license their courses to UKeU. In Sweden, money was given directly, albeit retrospectively, to all

universities who could prove that students had taken and passed courses that were registered with Sweden's Net University. The UK goverment put its money up front. The Swedish government paid according to results. In Britain the UKeU had a lot of money, very little legal responsibility to its main investor, Hold Co, and a chance to think globally instead of nationally. As a consequence it forgot its domestic obligations and started to conceive itself more as a global leader in e-learning, winning market share from the Americans and establishing itself as the e-learning equivalent of its more established relation, the Open University. Pride comes before a fall. In the Select Committee inquiry, a recurring criticism is that UKeU was too ambitious. It is one thing to be ambitious with a reason (good market research). It is another to base business on hearsay, picked up on executive fact finding trips. The Swedish Net University, on the other hand, was cautious to the point of passivity. The panel of assessors mentioned this in their in 2005 report.

> In its interpretation of the Higher Education Ordinance and its own budget directive, the Swedish Net University Agency has opted for a defensive stance and mode of operation in its relationships with the higher education institutions - a strategy that the panel of assessors considers problematic in its report. With more proactive procedures developments in the field could have been given a more distinct orientation [16]

It is important to note that the Net University always saw itself as a broker of online courses rather than a university in its own right. It has created a database of the courses that can be accessed via its website and helped students, via easy links, to enrol online in the course of their choice. The UKeU had a much grander vision as indicated by its desire to have courses of its own and a specially designed learning platform on which to launch them.

Both the Swedish and UK models were virtual universities in the sense that there would be no physical campus, no vice chancellors, no administrators and no academic staff. The most significant difference was that UKeU hoped to attract private investment and in time become a commercial venture. As it turned out almost all the money lost was taxpayer money. In Sweden there was no apology for the fact that Net University was to be entirely funded by public money. The Net University initiative was always seen as part of a political agenda to broaden university recruitment and help achieve the government's aim of having 50% of its adult population undertake tertiary studies. As we noted earlier the UKeU spent most of its money on salaries, bonuses and operating costs (£12.9m), technology platform development (£14.5m); learning programmes development (£10.9m) and sales and marketing (£4.2m). The Net University spent most of its money on an incentive scheme to encourage universities to adapt their on-campus courses to blended or online forms and to register and market them via the Net University

Comparisons can be odious. Before we think too highly of Net University and too dismissively of UKeU it is important to interpolate a key factor. University education, even postgraduate education, is free in Sweden. Even overseas students who undertake studies in Sweden are, at this point in time, not charged fees. In one sense the only way the Net University could have failed would have been if students in general did not want to study online. We know from the HSV report and the UCER reports mentioned above that for a majority of students online learning is not their ideal. Their most consistent criticism is that there is not enough student and teacher contact. They also miss the social opportunities that on-campus study provides. Nevertheless they are happy that, when circumstances prevent them from studying in situ, there is an online possibility to do so. In Sweden the local councils have created what are called learning centres where online students from the area can meet, get administrative, technical and academic advice and use the centre's computers. UKeU is criticised by the select committee for its lack of research and in particular its lack of research into the nature of e-learning. One important lesson from both UKeU and Net University is that much more attention needs to paid to creating an effective pedagogy of e-learning [18].

Another factor in the success and failure of the two ventures is that in Sweden, although a substantial number of graduate courses are given in English, the most common language of instruction at the undergraduate level is Swedish. The competence building and cost of delivering Net University couses in English was prohibitive in Sweden. In the UK the use of English as a language of instruction tempted UKeU to go global using an internet whose main language is English. The Net University offers the possibility for Swedish and other students to study registered online courses from abroad. This is an option that many Swedes take but understandably, given the limited number of courses prepared and assessed in English, there is not a large demand from non Swedes.[18].The UKeU's ambitions were partly fueled by the market advantage it had over non English speaking countries. On the other hand, the various colonies it had spawned throughout the world, were very much competitors and in the heat of the dot-com boom it was the desire to get in first, that lead to many of the rash decisions made by UKeU leadership.

In the reports that sum up the success and failures of UKeU and Net University there is a recurring theme. We have mentioned it already but it is a theme with which we wish to conclude this position paper. For its part the HSV first report

published in 2005 says: 'A comprehensive analysis of the field of distance and net instruction should be undertaken in order to identify the need for educational, methodological, technical and organisational changes'. One of the lessons from the UKeU debacle is that it is easy to be dazzled by technological change and forget that no matter what the medium good pedagogy involves helping students take a deep and meaningful approach to their learning. In Sweden in the 2002-4 phase of the Net University, some universities simply uploaded lecture notes, powerpoints and course material in their rush to go online and gain government funding. Two thirds of Net University students today study entirely online. But in both the Swedish and UK experience it is clear from reports that blended learning, where possible, is preferable. When courses are entirely online, including examinations, there is a need for a pedagogy that is better adapted to online learning. A need to think outside the black box. It is difficult enough to keep up with the rapidly developing technologies that enable a much more immediate presence for both teachers and students. Mobile telephone technology that enables the transmission of increasing amount of digital data in all forms offers a pedagogical challenge for online teachers and students. The temptation is to say we have got it so we must use it. The point is how well can we use it? How closely does the delivery method suit the aims and objectives of the course? How much time will be spent learning to use the medium of instruction rather than focussing on the instruction itself? These are not new questions. There have been huge changes in educational technology before now (the printing press for example) but given that new generations of learners will feel increasingly comfortable with the online media and be more ready to study when and where and how they wish, it is important that we meet the challenge of devising a pedagogy that matches the marvellous technology that is available. The history of the UKeU and the Net University provides many lessons but perhaps the most important of all is that we need to know how to reach our students via the simplest and most economical digital means, and then teach them, in the most pedagogical way possible.

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