
Resting in e-learning peace

Morten Flate Paulsen

The Norwegian School of Information Technology
Schweigaardsgate 14, 0185 Oslo, Norway
E-mail: mfp@nki.no

Abstract: The European Megatrends project has analysed 26 major e-learning successes and ten conspicuous e-learning initiatives which did not reach targeted goals. There is much to learn from the many successful European e-learning initiatives, but this article focuses on what we can learn from the ten discontinued initiatives that spent about €150M before they were closed down after an average of four years in operation. The article presents the ten discontinued initiatives comprising four consortia, two institutional initiatives and four governmental and political initiatives. It includes a discussion on why they failed and concludes with seven recommendations that are drawn from the analyses of the ten initiatives.

Keywords: electronic learning; e-learning; online education; megatrends; success; sustainable; discontinued initiatives; failures; recommendations.

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Biographical notes: Morten Flate Paulsen is a Professor of Online Education at the Norwegian School of Information Technology (NITH) and the Director of Development at NKI Distance Education in Norway. He is on the Executive Committee for the European Distance and E-Learning Network (EDEN) and on the European Association for Distance Learning (EADL) R&D committee. He has worked with online education since 1986 and published many books, reports and articles about the topic. Many of his publications and presentations are available at his personal homepage at <http://home.nettskolen.com/~morten/>. His book *Online Education and Learning Management Systems* is available via www.studymentor.com.

1 Introduction

“We learn by our mistakes” is an old adage in the English language. Unfortunately, there seems to be little learning from mistakes in education and it is hard to find scientific research on educational mistakes. Even though there are many examples of successful e-learning initiatives that are robust and sustainable (Arneberg *et al.*, 2007), it should be of great concern that too much of the e-learning that has been offered so far has been transient, unsuccessful and far from sustainable. Several examples of such e-learning are described in the article ‘Online education obituaries’ (Paulsen, 2003).

This article is based on the European Leonardo da Vinci project ‘Megatrends in e-learning provision’.¹ The objective of the project was to identify and analyse the megaproviders of e-learning in the European Union which have achieved robustness, sustainability and critical mass. In addition, the project should identify and study conspicuous e-learning initiatives which did not reach targeted goals. The project was carried out from 2005 to 2007 and headed by NKI Distance Education in Norway. The six other project partners were the European Distance and E-Learning Network, Distance Education International in Ireland, The Open University of Catalonia in Spain, the Estonian Information Technology Foundation in Estonia, the Norwegian Opening Universities in Norway and the Budapest University of Technology and Economics in Hungary. The project analysed 26 major successes (Paulsen, 2007) and ten discontinued e-learning initiatives (Keegan *et al.*, 2007). All analyses were based on a 26-question interview guide² focusing on institutional factors related to historical context, technical issues, courses, management and economy. The researchers experienced that it is much easier to find information about successful e-learning initiatives that are robust and sustainable than it is to find information about failures in Europe.

This study, which focuses on what we can learn from the discontinued initiatives, has its risks. Learning from mistakes and failures does not seem to be a characteristic of educational research. Educational research seems rarely to focus on failure or on the lessons that can be learnt from failure. Data was difficult to collect. Some key individuals refused to be interviewed; others would not be referred to. Important documentation was not made available. Websites were quietly closed down, but some of the content was still available via the Internet Archive.³ Nevertheless, the identification of the characteristics and trends of e-learning initiatives that failed to reach targeted goals could be vital for the progress and development of the e-learning field.

The ten analysed discontinued initiatives are listed in Table 1. It shows that the ten initiatives spent a disturbing amount equivalent to €150M of primarily public money. As taxpayers, we should be concerned about how public educational initiatives have wasted money on dubious initiatives and how hard it could be to reveal details about them.

The Megatrends researchers are the first to admit that the selection of case studies by no means intends to be representative of the situation in Europe. However, each of the case studies includes ample opportunities for learning that other initiatives can benefit from.

The table shows that the analysed institutions represent only Hungary, Norway, the UK and the USA. It would be relatively easy to include more cases from the USA, but the focus of the research is on European experiences and it was hard to find substantial information related to more discontinued initiatives in Europe.

One could wonder why Norway and the UK are so heavily represented among the European cases, but the researchers have no reason to believe that these countries are more prone to launch dubious initiatives than other European countries. It is more likely that these countries were early adopters of online education and that the researchers are more familiar with the situation in these countries than in other countries. In addition, Norway has four and the UK has six of the 26 successful e-learning initiatives that have been analysed in the Megatrends project (Paulsen, 2007). One may also acknowledge that there may be more willingness to share information about discontinued initiatives in these countries than in other countries.

Table 1 The ten discontinued initiatives sorted by money spent (see online version for colours)

<i>Institution and relevant web address</i>	<i>Country</i>	<i>Years in operation</i>	<i>Number of years in operation</i>	<i>Total amount spent</i>	<i>Educational level</i>	<i>Type of initiative</i>
UK e-University www.archive.org	UK	2000–2004	4	£50M	University	Political
United States Open University www.archive.org	USA and UK	1998–2002	4	USD 27M	University	Institutional
Alliance for Lifelong Learning www.alllearn.org	USA and UK	2000–2006	6	USD 12M	Further education	Consortium
NKN www.archive.org	Norway	2000–2002	2	€7–14M	All levels	Political
IT Fornebu Knowatation www.archive.org	Norway	1998–2001	3	€9M	Further education	Political
Scottish Knowledge www.archive.org	UK	1997–2002	5	£5.75M	University	Consortium
California Virtual University www.california.edu	USA	1997–1999	2	USD 6M	Further education	Consortium
The Scottish Interactive University www.archive.org	UK	2002–2007	5	£2.3M	University	Political
Bedriftsuniversitetet www.bedriftsuniversitetet.no	Norway	2000–2003	3	€2M	Further education	Consortium
SWI www.freeweb.org	Hungary	1999–2005	6	Unknown	All levels	Institutional

Table 1 also shows that the analysed initiatives were in operation for four years on average, with a range from two to six years. Many of the initiatives claimed that the dot-com hype helped initiate the projects and that the subsequent dot-com demise was an important reason for discontinuation. This is probably a correct observation, but the Megatrends project has also identified a number of successful initiatives that succeeded in establishing robust and sustainable e-learning operations in the same time frame. It should also be noted that many of the discontinued initiatives were based on enterprises with limited history and experience in e-learning.

The analyses showed that the initiatives could be sorted into three categories: consortia (four cases), governmental and political initiatives (four cases) and institutional initiatives (two cases). As the table indicates, one should be aware that political initiatives and consortia seem to dominate the discontinued initiatives presented in this study. Several of the consortia were actually perceived as competitors of their mother institutions.

In the following, the ten discontinued initiatives are organised according to the three categories mentioned above and presented in brief together with the findings from the analyses on why they failed. The full case studies and their further analyses (Keegan *et al.*, 2007) are available online via the Megatrends website.⁴

2 Consortia

There are many examples of discontinued online education consortia. It is easy to find good reasons for collaboration between educational institutions, but in real life, individuals and institutions are usually much more committed to themselves than to the consortium. In general, one may suspect that a consortium of prestigious institutions can hardly be wholehearted. A relatively weak external consortium secretariat could easily be overlooked or opposed by powerful factions within the institutions. There is also a chance that individual institutes, departments and even institutions would compete with the consortium in bids for external contracts. This is obviously not a viable environment for a consortium.

Four discontinued consortia were included in the study: Alliance for Lifelong Learning (AllLearn), California Virtual University (CVU), Bedriftsuniversitetet and Scottish Knowledge.

2.1 Alliance for Lifelong Learning

AllLearn was established in September 2000. It was founded by four prestigious universities: Stanford, Oxford, Yale and Princeton. Princeton withdrew after a few months. The alliance ceased activities in late 2005 and was officially closed in March 2006 (MacLeod, 2006; Sohn, 2006; Jokivirta, 2006). The budget was USD 12M. The universities were said to be focusing on their 500 000 alumni, but only 600 students enrolled.

AllLearn was backed by the prestige of the partner institutions but had difficulties selling the value of noncredit courses, instead of the prestigious degrees of the elite universities. The 'general interest' market for online provision was unproven, and there was no interest in general interest subjects like archaeology or the poetry of World War I.

Institutions offering noncredit courses must generally charge lower tuition fees than providers of credit courses leading to a qualification. The shorter duration of the noncredit courses, when compared to degree programmes, led to less tuition revenue.

The budget of USD 12 million was too small. The project's founders appear to have underestimated the costs of designing online courses, and the cost of offering top-quality enrichment courses at affordable prices was not sustainable over time. The embarrassment and the damage to the prestige of the famous universities involved were demonstrated by the almost complete silence of the universities' websites when the project was disbanded. The project proved that there is a limited market for online, noncredit, edutainment courses and the absence of online offerings of the official degrees of the elite universities was clearly a contributor to failure.

2.2 *California Virtual University*

CVU was a high-profile venture with a dismal history. It was launched in April 1997 as a joint project of the University of California, California State University, California Community Colleges and the Association of Independent California Colleges and Universities. It was a loose e-learning consortium running on a broker model. Its functions were to advertise and administer the 1600 courses on its website, but every consortium member kept full independence and dealt with the whole range of academic services and accreditation.

There was a lack of strategy and it was never clear what the CVU was intended to be. Was it just a database or something more? Each institution offered courses from its own site so that the students did not need to return to the CVU portal. According to Berg (1998), the broker model was "a hodgepodge of previously existing courses with great differences in format and quality". There was inadequate pre-vision and planning of the financial and business aspects. The CVU was without any means of financial support. The University of California, California State University and the California Community Colleges refused to contribute financially. The CVU was practically closed in March 1999 and the CVU's homepage was quietly taken down.

Downes (1999) wrote an interesting analysis claiming that the CVU dream lay in ruins. In his analysis, he stated:

"While on the one hand this is just another story of an unprofitable enterprise biting the dust, on the other hand it is a story of wider impact because CVU was seen in some quarters as a model for the future. The failure will affect online learning in general, and the reasons for the collapse attributed to weaknesses in the medium as a whole."

2.3 *Bedriftsuniversitetet*

Bedriftsuniversitetet (The Business University) was a consortium established as a company in 2000 by four large, prestigious Norwegian institutions: the University of Oslo, the Norwegian University of Science and Technology, The Norwegian School of Management (BI) and the SINTEF research institute. The aim was to offer both traditional education and e-learning to corporations and organisations. In April 2003, the general assembly decided to shut down the operation. A message posted at the company's

homepage referred to a decreasing market for tailor-made competency building at the college and university level, and stated that there was no basis for continuation of a company at the costs a consortium requires.

Several of the courses being offered by the company were in direct competition with courses being offered by the four constituent institutions, and the company competed with existing institutions for a decreasing market for online and continuing education. Some critics asked questions such as, What is the point of establishing a company for continuing education that would actually compete with the educational activities of the very institutions that own it? As the market failed to grow and even decreased, it became impossible to find an adequate answer to this question.

2.4 Scottish Knowledge

Scottish Knowledge (Bristow, 2005) was a short-lived partnership between Scotland's 21 higher education colleges and universities which offered online courses and distance education courses to students around the world. It was founded in August 1997 and closed in 2002. It had offices in the United Arab Emirates, Malaysia, Scotland and the USA.

There was a certain arrogance in assuming that Scottish degrees would be acceptable and receive accreditation in the USA, Asia and the Middle East. The student enrolment that Scottish Knowledge dreamed of was not available on the ground in those regions. Scottish Knowledge was succeeded by the Scottish Interactive University, which was founded by Heriot-Watt University and Scottish Enterprise – the Scottish economic development agency funded by the Government of Scotland – and, strangely, was opened before Scottish Knowledge closed.

In late 2001 the United Kingdom e-University (UKeU) was considering the purchase of Scottish Knowledge for £12 million but in the end decided not to go ahead. Scottish Knowledge continued to operate in some form until late 2002, when it closed. Yet in October 2002, before Scottish Knowledge closed, Heriot-Watt University, with help from Scottish Enterprise, had jointly set up the Scottish Interactive University (Bacsich, 2005b). Scottish Knowledge used up its government funding and no more was made available. Before it closed, the Scottish Government had already decided to found its own e-university through Heriot-Watt University and its own funding agency, Scottish Enterprise.

3 Governmental and political initiatives

Many governmental online education initiatives have not been sustainable. These initiatives are often very visible and expensive. One reason for the problems might be inconsistent policy due to changing governments and political disagreements. Compromises and lack of market knowledge may also contribute to suboptimal decisions, as indicated in these examples described by Paulsen (2003):

“Winix was an LMS (Learning Management System) that the Norwegian Ministry of Education initiated in 1988. According to a 1994 article in Computerworld Norway (Computerworld Norge 1994), the Office of the Auditor General (Riksrevisjonen) showed that the project spent more than €10

million in the nineties. In 1992, it was clear that the project had failed. The software was not finished on time, and several companies that depended on Winix lost much money.

“The Danish Ministries of Education and Research initiated a *Danish Virtual University* in a mission statement on March 27, 2000. The €5 million budget for the period 2000–2003 was intended to support the development of Web-based courses and provide information about the courses. The next government shut down the initiative, partly as a result of lacking support from the affected institutions. The only remaining result seems to be a portal providing information about further and continuing education (www.unev.dk) that was initiated by the *Danish University Rectors’ Conference* and scheduled to open in August 2003.” (p.145)

The Megatrends project has studied some political initiatives in more detail. Short presentations of the Scottish Interactive University, the UKeU, IT Fornebu Knowation and the Competence Network of Norwegian Business and Industry (NKN) are provided in the following.

3.1 *Scottish Interactive University*

The Scottish Interactive University (IU) was started in Scotland in October 2002. It was born as Scottish Knowledge collapsed, and Heriot-Watt University and Scottish Enterprise, the development agency of the government of Scotland, were the major promoters of this consortium of Scottish universities. Much of its courseware was inherited from Heriot-Watt University, which had a well-known distance education programme, or from Scottish Knowledge, the e-university which it replaced.

The IU claimed to be a university. Yet its only successful programme was a high-school programme called SCHOLAR. This was inherited from Heriot-Watt University and developed with a grant from the Scottish Executive. Bristow (2004) seems to suggest that the enrolment of the IU was 46 000, comprising 45 000 from the SCHOLAR programme and 1000 from other programmes. Heriot-Watt University, the main promoter of the IU, was well known for having a successful overseas distance education programme, especially its overseas MBA which was considered one of the best available. Yet the IU did not follow the Heriot-Watt model. It had been hoped the IU would bring in millions in revenue for Scottish universities, with the institutions using it as a means to offer supported learning to students at partner institutions in up to 40 other countries, but this did not eventuate. The majority of Scottish universities failed to join it.

The claim that “500,000 students would enrol in the next two years” was ill-founded. It shows a total lack of ‘hard-nosed’ market research which is essential for any e-university, and that the university lacked analysis of the real world. The IU did not have the structure or the technology to process half a million students. It was closed (The Scotsman, 2007; Checkpoint-elearning, 2007) after four years of operation in April 2007, when a £1.5 million bid for emergency funds was turned down by Scottish Enterprise.

3.2 *United Kingdom e-University*

The UKeU was launched in February 2000 by the Secretary of State for Education, who appointed the UK Government’s Higher Education Funding Council for England (HEFCE) to take charge of the project. A budget of €93 million was provided and the venture carried with it the prestige of the Blair UK government. The launch of the first

UKeU courses was delayed until September 2003. When launched, they attracted just 900 students against a target of 5600. One issue which provoked public comment was the awarding of bonuses to senior executives of UKeU.

The project was effectively wound up by HEFCE in 2005. The closure of the UKeU is well documented, and the following is primarily derived from Bacsich (2005a), Garrett (2004), HEFCE (2004) and the UK Government's Select Committee for Education and Skills (2005). The UKeU failed largely because it took a supply-driven rather than demand-led approach. This supply-driven approach, combined with the very ambitious nature of the venture in an emerging market that did not sustain the high expectations of demand, and an inability to work in effective partnership with or gain significant investment from the private sector led to the failure of UKeU to meet its targets, aims and objectives.

There was insufficient market research. There was no formal market research undertaken to assess either the level of demand or the nature of the demand and the type of e-learning required. There was no systematic evaluation of the markets, no thorough and robust market research, and no understanding of consumer demand.

Early on, the company decided that existing commercial and other platforms were inadequate and that competitive advantage lay in developing a world-class platform in-house. UKeU allowed the development of the technology platform to drive its strategy and the development of programmes. It had a skewed focus on the platform based on an assumption that once this was made right, the original projections of very high student numbers would be easy to realise.

The government should learn from this experience and, in the future, take a more experimental approach to such high-risk ventures. This would involve focusing more on testing various models and prototypes, taking an evidence-based approach, involving the private sector as partners in a more organic process, undertaking effective risk-assessment procedures, and setting open and transparent the success criteria for such projects. The government must clarify its national strategy for developing e-learning in the UK and how it intends to invest in and support e-learning across the Higher Education (HE) sector in a way that provides coherent progress.

UKeU debuted in February 2000, just a few weeks before the dot-com crash. During the internet boom, the potential for new technology to transform many aspects of society, including higher education, in the short term was dramatically overstated. The dot-com boom presented online delivery as an alternative to the conventional campus rather than as a supplement, as has more often turned out to be the case. UKeU's business model centred on wholly online provision with very little evidence of a secure market.

3.3 IT Fornebu Knowation

IT Fornebu Knowation (ITFK) was a result of the controversial political decision to establish a world-class research and development centre for Information and Communication Technology (ICT) at the old Oslo International Airport when it was shut down in 1998. The project was the subject of continual political and bureaucratic quarrelling. Some critics claimed that the project's main objective was to secure valuable real estate properties in an attractive area. The centre needed educational enterprises and ITFK was a key player to attract educational activity. ITFK located and planned a

network of video-conference studios around the country. The opponents of the project claimed that the selected video-conference locations were chosen to get the necessary support from local members of parliament.

ITFK was based on a grand vision of a world-class research and development centre at Fornebu which was not realised. There was no market research to show that such a centre at Fornebu was needed and would be successful. ITFK was not the result of an evolutionary and incremental development process. It was established on the basis of a vision by a small number of investors and entrepreneurs with little or no experience in the field of e-learning. The company never managed to achieve a good working relationship with the education system. It was regarded as a redundant organisation established by businessmen with little competence in education and by equally incompetent politicians. The Norwegian competence reform in continuing education and lifelong learning was not successful and therefore there was a decreased, not an increased, market for continuing education. The ICT market in Norway decreased by 30%–40% and so there was a great reduction in the ICT continuing education market.

The company experienced a difficult economic situation and has more or less disappeared after several reorganisations and mergers. The market for online continuing education was inadequate and the video-conferencing model was too costly. The company greatly underestimated the cost of setting up electronic classrooms and study centres. The Norwegian Parliament ordered a white paper on the initiative (St.meld. nr. 42, 2003–2004) and closed its contribution in December 2004 after investing €50 million in the project.

3.4 The Competence Network of Norwegian Business and Industry

The Competence Network of Norwegian Business and Industry (Næringslivets Kompetansenett, NKN) was a commercial company established in August 2000. It was owned by the Confederation of Norwegian Business and Industry, the Norwegian Confederation of Trade Unions and Telenor, the largest telecommunication company in Norway. The powerful owner institutions wanted to show their vigour and dedication to supporting further and continuing education in the workforce. The dot-com hype also helped the initiation of NKN. It was primarily a provider of Learning Management System (LMS) services to companies (customers) in collaboration with course and content providers (partners). It was set up to support the Norwegian goals of competence reform and competence development.

NKN overestimated the willingness of workers to engage in learning. It was never able to cover its costs and the shareholders lost nearly €10 million. To avoid the bad publicity of a bankruptcy, the owners decided to pay off the creditors with about €1 million and to sell NKN to the CEO for a symbolic sum in 2002 (Norgesuniversitetet, 2002).

NKN was a completely new enterprise with no history, tradition or experience in the field. The establishment was based on future prospects resulting from the competence reform and was a direct part of wage agreements between the social partners and the government. Its owners and staff had a rather limited experience in online education. The initiative came from organisations with main functions far from administering, selling and organising e-learning services. NKN engaged competent staff to perform the necessary functions. However, most of the staff had no direct practical experience in running an e-learning business.

Partnerships with a large number of course and content providers able to deliver 'all' types of courses and training programmes was a basic strategy in the establishment of NKN. The course catalogue contained a large number of courses. These represented very different kinds, from books and CD-ROMs to correspondence education and internet-based distance education, as well as ordinary classroom education and blended learning.

It can hardly be said that NKN was an institution characterised by specifically high competence in ICT. The technology was based on the Saba software developed and supported by a US firm. Most probably the Saba software represented well-integrated and state-of-the-art technology for e-learning. However, there is no doubt that standardisation issues concerning integration and the possibility of achieving satisfactory, or at best seamless, interfaces with the systems used by course providers were not solved and led to more difficulties than expected. There is every reason to believe that the Saba systems were effective for its purpose. On the other hand, the success of NKN was also dependent on the student and course administrative systems of the course providers. The efficiency of those systems could hardly be followed up by NKN, and lack of integration reduced efficiency.

Although NKN was profiled as "the world's largest Internet school ... with the aim of giving everybody in the whole country opportunity for further and continuing education at the workplace or at home via the Internet", the courses included many offers that in practice were not offered on the internet. The flexibility of the courses varied a lot. Some were based on individual learning, flexibility and free progression, while others were not.

There is also every reason to believe that the staff of the whole organisation were enthusiastic in the endeavour to build up a highly profiled e-learning operation. They had all been engaged just for this purpose. The strategy was built on marketing and organising education based on internet and e-learning software. However, it can be queried whether the strategy of offering the large variety and types of courses, not all e-learning according to accepted definitions, was the best strategy for developing "the world's largest internet school".

NKN had full support from the top management of the owner organisations, the board and the top management of NKN itself – as the development of e-learning provision was the basis for establishment and the goal of the company. However, concerning the main owners, there is reason to believe that the focus of the employers' and employees' organisations is on other questions and challenges than running a commercial e-learning operation.

There is every reason to believe that NKN had the full support of the government, including the ministries of education and trade and commerce. As NKN was established by the social partners in connection with the emphasis on including education, training and competence development as part of the tariff agreements, the support from leading forces of the Norwegian society should be unquestionable.

Collaboration with other institutions was the basis and part of the main strategy of NKN. Already from the start, NKN established partnerships with 30 to 40 course and content providers. However, it is not certain how enthusiastic these institutions actually were and to what extent they really had a lot of training programmes that fit into NKN's strategy.

The owners' ambition was to provide cost-effective competence development for the Norwegian workforce – as illustrated by the speech of Finn Bergesen, chief executive of NHO at the opening ceremony, "... NKN is cost effective, as people learn more per krone, and it will help all enterprises keep their competitive edge". The fact is that it was not cost-effective and spent much more money than it earned. The question is whether it had potential to become cost-effective with the chosen strategy. From the viewpoint of providers of internet-based courses, it is questionable if it could become cost-effective.

NKN never managed to get a predictable or stable income. The sale of courses is a long process. Support from government policies and the organisations of working life probably have little influence on the decisions on training taken by individual enterprises and very little influence on the individual learner's decision to enrol in a training course. The owners largely overestimated the readiness for applying e-learning in Norwegian business and industry, and it seems clear that NKN from the start had a staff that was too expensive to be covered by the income from courses and services.

4 Institutional initiatives

Many commercial and investor-driven online education initiatives have failed. E-learning was depicted as a lucrative investment during the dot-com period. Numerous speculative projects attracted investors with high expectations and many of these projects vanished when the dot-com bubble burst. The dot-com initiatives initiated unrealistic hype on online education; unfortunately their demise resulted in an equally undeserved pessimism.

Many universities have also failed in their commercial online education ventures. In a 16 May 2003 *Times Higher Educational Supplement*, Phillips (2003) wrote:

"In March, Columbia University cut its losses on Fathom.com, having run up a USD 25 million investment tab on the online education portal. The New York-based venture was perhaps the last vestige of the brash 1990s, when a slew of universities tried to cash in on their intellectual capital to corner the nascent e-learning market. The universities of New York, Cornell, Temple and the University of Maryland University College have folded commercial internet education arms or scaled back ambitions amid poor enrollment and tough economic conditions."

Two very different institutional initiatives, the United States Open University (USOU) and SWI free web, are included in this study. They are presented in the following.

4.1 The United States Open University

The USOU was established in 1998 by the British Open University (OU) as an independent US-based institution. Ranked in the top ten among British universities for the quality of its teaching, the British OU sought to develop a sister institution in the USA. The OU had achieved quality at scale, enrolling over 200 000 students in the UK and Europe. However, the US market was more competitive and the OU brand identity was little known there. USOU offered baccalaureate and master degrees in business, computing and IT, and the liberal arts. It developed nationally recognised programmes with community colleges and joint degree programmes with major US universities. However, not all British aspects of the academic or business models worked successfully

in the USA. USOU evolved from producer-driven, largely undergraduate courses and systems derived from the UK into a US-market-led institution based on partnerships and graduate programmes. Marketing shifted from students to institutions.

Enrolments increased considerably every semester from fall 2000 to fall 2001, but revenues failed to grow fast enough. So, the British OU decided to terminate the project and shut down the activity in June 2002. The initiative carried with it much of the prestige of the Open University of the UK and its failure to win university accreditation by the appropriate US Regional Board was a major factor in its lack of success. Further analyses of the lessons learned are provided by Jarvis (2002), Tilson (2002) and Meyer (2006).

4.2 SWI free web

From 1999, a Hungarian educational site called *okta.to* (EDUCATOR) made visible progress towards online learning with many courses offered at a reasonable price. The site was owned by the free web-service provider SWI, and after a very promising start-up, it closed down in 2005. At the time of operation, it was Hungary's largest publicly accessible online learning opportunity. SWI is not regarding the discontinuity as a failure, since it was the only major e-learning activity in Hungary during this period and it generated a substantial income which helped the company to still be in operation.

This online activity was offered too early, since the technological development in Hungary was lagging behind other parts of the world. There was no Hungarian standard LMS at that time and there was no internet payment service available. Manual bank transfer with prepayment had to be applied.

The educational market was immature. The company could not have performed better because of the lack of investment and the lack of product management resources. The attitude of Hungarians to e-learning did not favour the initiative and US business attitudes did not work in Hungary.

The company still has the learning materials, the records, contacts with tutors and the database of former users. SWI is still thinking of re-offering the distance learning service on a free-access basis for their free web clients. SWI believes that a mature internet market will need quality web-hosting with extra services, among which a free e-learning opportunity could play an important role.

5 Conclusions and recommendations

The Megatrends project identified 26 examples of large, successful e-learning initiatives that we could strive to emulate. However, there is also a lot to learn from the ten initiatives that failed to reach their targeted goals. Based on the analyses of these 36 case studies, the eight researchers in the Megatrends project have agreed on 34 recommendations for robust and sustainable large-scale e-learning (Arneberg *et al.*, 2007). The following recommendations are the seven that were based on the analyses of the ten cases presented in this article:

1 *Be sceptical about top-down political and boardroom initiatives.*

Many political online education initiatives have not been sustainable. These initiatives are often very visible and expensive. One reason for the problems might be inconsistent policies due to changing governments and political disagreements. Compromises and lack of market knowledge may also contribute to suboptimal decisions.

2 *Be sceptical about a consortium of institutions that compete with each other and the consortium.*

Online education consortia are often not sustainable. It is easy to find good reasons for collaboration between educational institutions, but in real life individuals and institutions are usually much more committed to themselves than to the consortium. In general, one may suspect that a consortium of prestigious institutions can hardly be wholehearted. A relatively weak external consortium secretariat could easily be overlooked or opposed by powerful factions within the institutions. There is also a chance that individual institutes, departments and even institutions could compete with the consortium in bids for external contracts. This is obviously not a viable environment for a consortium.

3 *'Hard-nosed' market research is essential for the success of any e-learning initiative.*

Totally unrealistic enrolment projections characterise nearly all the initiatives which failed to reach their targeted goals. Many of these initiatives were promoted by institutions of the highest prestige. The British Government put up €93 million for the UKeU, but 'hard-nosed' market research was conspicuously lacking. Enrolment targets of 500 000 were bandied about for initiatives that in fact enrolled only a few thousand students. This applies to AllLearn sponsored by Stanford, Oxford, Yale and Princeton Universities. It also applies to the Scottish Interactive University, sponsored by the Government of Scotland and Heriot-Watt University.

4 *E-learning initiatives should plan carefully for and carefully control their revenue and expenses. Seed funding dries up quickly.*

The evidence from the case studies is that few, if any, of the initiatives carefully controlled their revenue and expenses. Most of them underestimated the costs of producing quality e-learning materials, most of them failed to budget for the costs of updating the e-learning materials on a regular basis, most of them failed to accurately count the costs of servicing the students enrolled in their programmes. A worrying pattern emerges from nearly all the case studies presented with regard to seed funding. Stage 1 is that seed funding, often generous, is provided by government, sponsors or industry. Stage 2 is that the seed funding is quickly used up. Stage 3 is that further seed funding is applied for. Stage 4 is that this further funding is refused. Stage 5 is that the institution is closed down, demonstrating graphically that the institution had not planned to control revenue and expenses carefully.

5 *The choice of courses and their accreditation are crucial.*

The choice of courses for an e-learning initiative needs to be made with care. AllLearn was refused the prestigious degrees of Stanford, Oxford, Princeton and Yale for their clientele and failed as a result. Its offering of general interest courses

like 'The poetry of World War I' was also a failure and demonstrated that there was no market for such offerings. The NKN failure demonstrated that citizens are not students, and that workers are not students, and that the ideal of developing competence throughout society by e-learning was not shared by workers. In general, the choice of courses for these systems needs to focus on qualifications which enable a worker to progress to the next level of his or her profession, or to focus on a qualification that is essential for a worker to hold on to his or her job and not face retrenchment. The accreditation of courseware for e-learning is also crucial and should not be taken for granted, especially if the courses are to be offered overseas. The Open University of the UK was rightly proud of its distance education degrees and of the courseware for these degrees, which was admired worldwide. It failed, however, to get these courses accredited at the university level in the USA, and it was therefore closed down before the lengthy application period for accreditation was completed.

- 6 *E-learning initiatives should precisely define the relationships of their initiative to existing providers and the institutional model they will adopt.*

It has been pointed out a number of times that several of the initiatives were competitors for enrolments with existing providers and, in some cases, even competitors for enrolments with their own sponsoring institutions. The UKeU was a competitor for students with the Open University of the UK and with other British universities that had worked hard at building up distance education clienteles overseas. The Bedriftsuniversitetet in Norway was in competition for students with the powerful Norwegian institutions that founded it. The institutional model of the CVU was unstable, as the consortia establishing it refused to release to it sufficient educational roles to make it viable. The 21 universities and colleges that founded and managed Scottish Knowledge again created an unviable institutional structure.

- 7 *E-learning initiatives should plan carefully to manage both their educational and business activities.*

E-learning initiatives should plan carefully for both their educational and business activities and adopt a management structure which allows both to be managed successfully. An e-university must be both a university and a business, and it is difficult to do both well. The British Government Parliamentary Committee criticised the management of the UKeU for behaving like a business and not like an educational management team. ITFK was criticised by Norwegian educationists as being redundant to educational needs and founded by businessmen who knew little about education. In all the case studies, one can see evidence of a failure of educational management or business management or both.

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Notes

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