ҚАЗАҚСТАН РЕСПУБЛИКАСЫ БІЛІМ ЖӘНЕ ҒЫЛЫМ МИНИСТРЛІГІ Л.Н. ГУМИЛЕВ АТЫНДАҒЫ ЕУРАЗИЯ ҰЛТТЫҚ УНИВЕРСИТЕТІ

ҚАШЫҚТЫҚТАН БІЛІМ БЕРУ: ЖАҺАНДЫҚ АУҚЫМДАҒЫ ЖАҢА СЫН-ҚАТЕРЛЕР ІІІ Бөлім

ДИСТАНЦИОННОЕ ОБРАЗОВАНИЕ: НОВЫЕ ВЫЗОВЫ ГЛОБАЛЬНОГО МАСШТАБА

Часть III

DISTANCE LEARNING: NEW CHALLENGES ON A GLOBAL SCALE Part III

Главный редактор: Сыдыков Е.Б.

Заместитель главного редактора: Онгарбаев Е.А.

Члены редакционной коллегии: Ильясова А.С. (ответственный редактор), Сеилов Ш.Ж., Козыбаев Д.Х., Нурмолдин Е.Е., Бейсенбай А.Б., Бекманова Г.Т., Мукажанова Л.Г., Дюсекеев К.А., Кушенова Г.И., Адамов А.А., Омарбекова А.С., Рахметулина Ж.Б., Алдонгаров А.А., Байхожаева Б.У., Бейсенова Р.Р.

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В данном сборнике, подготовленном Евразийским национальным университетом имени Λ .Н. Гумилёва, представлены материалы международной конференции на казахском, русском и английском языках по вопросам дистанционного образования.

Выступления участников конференции посвящены актуальным проблемам и перспективам актуальных задач в области применения дистанционных технологий и распространение эффективного инновационного опыта на международном уровне.

Сборник рекомендован всем участникам образовательного процесса для обмена педагогическим опытом и дальнейшего повышения квалификации.

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THE INNOVATION-E-LEARNING

By Ms. Saltanat Adilkhasym Mukash

The purpose of this article is to explore the concept of electronic or "e-learning" as an exemplar of an educational innovation, with particular reference to the higher education sector. The concept of e-learning as an innovation is central to the overall research question posed in this study, about the ability of organizations to embed innovation successfully and, more specifically, about the nature of the relationship between the innovation and the embedding process.

Much has been written about e-learning in the literature and the media, contributing to a sense of confusion about the innovation and to the "hype" which, like earlier educational innovations, promised to revolutionize learning (Birchard, 2001; Spender, 2001, 2002, 2003; Watts, 1996).

The term *e-learning* has been adopted by a number of different learning constituencies: workbased training, higher education, vocational education and schools, and government. Each group brings its particular emphasis, priorities and set of expectations and understandings. In this light, further consideration is required about the nature of the e-learning innovation, its characteristics or attributes, and whether these attributes are unique or distinctive compared to other (earlier) forms of technology-mediated learning.

The position adopted in this study is that, irrespective of the educational arena (e.g. industry, higher education, vocational), e-learning comprises three essential dimensions, technology, access and quality, although these may assume different weightings in different contexts. The definition of e-learning used in this dissertation, therefore, draws these three constituent components into a straightforward but inclusive statement of e-learning as: "the use of new multimedia technologies and the Internet to improve the quality of learning by facilitating access to resources and services as well as remote exchanges and collaborations" (European Commission, 2001, online).

As was the case with many previous educational innovations (resource-based learning, distance education, educational television and "open learning") much of the focus of early e-learning initiatives was on the technologies (Holt & Thompson, 1995; Lundin, 1993; National Board of Employment, Education and Training, 1992; Taylor et al., 1996), that is, the "e" aspect of e-learning, the digital software and hardware technologies that underpin current information, communication and network environments. Typically e-learning has exploited newer electronic and digital technologies (Internet, web, enterprise level learning and content management systems), hardware and software applications, although more conventional or stand-alone media (CDs, DVDs, and conferencing technologies) are not precluded.

The vocabulary of e-learning is thus often problematic and re-emerges as an issue with respect to its adoption and integration within organizations (Johnston, 2001). Laurillard provides another example of the importance of language with respect to e-learning, in the use of the term "instructional design", rather than "learning design" or "educational design". The latter, she argues, has its genesis in a "more governed approach to learning" which disregards the true potential of designs enabled by new technologies to facilitate learning (Laurillard interview in Neal, 2003, online).

The current generation of e-learning has been largely based on traditional conceptions of teaching and learning (Ayres & Grisham, 2003; Laurillard, 1993, 2002b). The dominant traditional pedagogy, a content-centred approach, relies on the delivery of information to students (Laurillard, 2002b; Roberts, 2003). Accordingly, "transmission" or "broadcast" modes and technologies were employed (e.g. download technologies such as video- or audio-on-demand) – those which facilitated one-way dissemination or broadcast of information via the Internet or intranets, or, alternatively stand-alone electronic technologies such as videocassette and CD-ROM (Laurillard, 2002b; Lundin, 1993; Rossiter, 1997).

Initially, Internet technologies (commonly employing email and stand-alone web sites) were primarily text-, static image- or graphics-based, permitting minimal interaction or two-way communication between learners. The potential of the web as an interactive communication space, rather than an information delivery mechanism, however, was recognised, even promoted, and attempts were made to differentiate "web-based e-learning" (Sun Microsystems, 2003, p. 3) from other technology-mediated "e"-learning (e.g. via broadcast, satellite, videocassette, CD-ROM). In reality, however, this first phase of Internet-based education largely emulated or transposed the same constructs or elements of the traditional teaching environment into the new digitally connected environment:

The academic community has not redefined what counts as "higher learning" and therefore cannot redraft the specification for how the new technology should do anything other than what learning technology has always done, transmit the academic's knowledge to the student. The academic world has called each new technological device – word processing, interactive video, hypertext, multimedia, the Web – into the service of the transmission model of learning. The potential of the technology to serve a different kind of learning cannot be exploited by an academic community that clings only to what it knows (Laurillard, 2002b, p. 20).

The migration to web-based technologies within institutional environments had two immediate impacts. First, much of the richness of the best of the interactive multimedia resources was scaled back, due to the technical limitations of networks and servers mentioned previously. Secondly, however, the capacity of the web to reach more students at more locations led to a proliferation of single stand-alone websites serving individual courses. Issues emerged about the

efficacy of these stand-alone websites from both the institutional and the learner perspective (Crisp, 2002). For example, from the institutional perspective, development and maintenance of individual websites was becoming highly resource intensive and, from the learner's perspective, numerous course websites demanded that students became familiar with a different user interface and navigation for each of their online subjects (King, 2001).

An important dimension of the potential of e-learning is access to education via accredited courses, workplace training and information resources (Department of Education, Training and Youth Affairs, 2001; European Commission, 2001; Helios, 2005). Access has been construed as a primary driver of e-learning, in a similar way as it underpinned the rationale for distance education. A commonly held view about e-learning is that it is an extension of distance or distributed learning, but offering a more contemporary, technological solution to the physical limitations of separation of learner from teacher. The distributed nature of e-learning activities in space and time has been made possible by advances in communication and information technologies, the increasing reach of telecommunications and broadband networks, and improved ICT access by students (Department of Communications, Information Technology and the Arts, 2001; Department of Education, Science and Training, 2002c; McCann et al.,1998; Oliver & Towers, 2000). There remains, of course, a valid argument that the limitations of the technologies, for example in bandwidth and quality of service (QoS) protocols, still place considerable constraints on the reach and the quality of distributed teaching and learning activities. These constraints, however, are gradually being addressed globally (as evidenced in the capacities of Internet 2, Canarie) and in the Australian context (Australian Government, 2001, 2004a, 2004b).

The critical dimension of e-learning innovation is *quality*, where again there is ongoing debate about what constitutes quality. Although there is general agreement on the strategic importance of quality in education (Department of Education, Training and Youth Affairs,1999b, 2000; Dondi et al., 2004), "and on the fact that quality in e-Learning needs considerable attention and constantly high resources" (L-change, 2004, p. 122), consensus on a definition of quality in education is as problematic as consensus on a definition of e-learning. Notions of quality, however, cluster around certain themes or value systems.

Another approach to understanding what is meant by quality in e-learning is to consider the individual factors or components within the education system that might be identified as indications of quality. Relevant quality factors or indicators span many issues, but the better articulated ones include matters of technology, pedagogy and learning design (including curriculum and content structure), student support and course assessment. A brief outline of some of these factors follows.

The inherent capabilities offered by communication and information technologies continues to prompt protagonists, such as the President of MIT, to comment on the potential of technology as an instigator of quality: "We now have a powerful opportunity to use the Internet to enhance (the) process of conceiving, shaping and organizing knowledge for use in teaching. In doing so we can raise the quality of education everything" (Vest, in Johnstone, 2002, p. 20).

Equally, however, there are strong challenges to what is interpreted as technological determinism, or "technological inevitability" (Taylor et al., 1996, p. 11) driving educational change and being adopted as the key measure of educational quality.

Other determinants of quality have focused on e-learning content: its accuracy, design, relevance, currency and creativity. The notion of creative content (Jasinki, 2004; Looms, 2002; Marshall, 2004; Salmon, 2004), "the Wow factor" (Law, 2004, online), as an indicator of quality has

been problematic, partly because creativity and enjoyment are difficult to measure as qualitative judgements, but also because some of the creative content elements (e.g. games) have been considered as merely ephemera or entertainment rather than sound education.

An appreciation of cultural and other contextual elements is also considered to be a significant dimension of the "quality" of the content. McLoughlin and Oliver (1999), for example, identify the potential tension in educational design models which attempt to provide access for larger multicultural groups of learners, and the importance of being able to contextualize learning at the "local" level to accommodate culturally relevant and sensitive dimensions. McCarty (2005) raises issues with respect to cultural influences which underpin students' assumptions about teaching and preferred learning styles in e-learning environments.

Student support is an aspect of e-learning quality that increasingly is being used to differentiate universities. Support services include administrative services, flexible and convenient online access to information about enrolments, credit transfer, course information, fees and student managed assessment. As Hanna comments: "these direct and immediate personalized contacts with students are becoming more central to organizational and educational quality, as perceived by the student" (Hanna, 2003, p. 27).

Another critical element of student support, particularly in online and technologically-mediated contexts, is learning support. The Pew symposium delegates, as reported by Twigg, argued that quality was premised on greater individualization of learning experiences for students (Twigg, 2001), but it should be noted that such a trend is premised upon greater independence, learning competencies and confidence on the part of the student. The ability of institutions to provide appropriate adequate information and technological and academic literacy support for students (Oliver & Towers, 2000; Rossiter & Watters, 2000), however, is only one dimension of the broad range of learning skills required by students in the new environments.

To summarize, the issue of quality can become quite adversarial: individual factors such as those mentioned above are polarized and championed as *the* dominant or most important indicators of quality. The intensity and increasingly apparent emergence of seemingly opposing factors or elements highlights a risk of pursuing a factorial approach as an appraisal of quality. A case in point of a dichotomous "quality" discourse concerns content versus learning support for students as the key measure of the e-learning experience (King, 2001). Hanna suggests that "this transition is a major challenge for many higher education institutions, where the focus has historically been on the product or the core program design" (Hanna, 2003, p. 27). A more familiar example is that of pedagogy versus technology as a driver of educational quality.

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