

Universal Learning at a Distance: Can We Plug It In?

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Abstract: *This article previews the future of universal learning, and related issues such as societal need, technologies, course design, administration challenges, faculty support, and student service.*



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Introduction

All, regardless of race or class or economic status, are entitled to a fair chance and to the tools for developing their individual powers of mind and spirit to the utmost.

– A Nation at Risk (NCEE, 1983)

Hardly could the framers of the quotation above – serving for the National Commission on Excellence in Education and writing from a rather nationalistic perspective – have imagined more than two decades ago the global applications of this marvelous sentiment that would be possible come the new millennium. Through online and other distance education models, a fair chance at higher education for all is no longer a visionary's dream, but a visible reality within our peripheral sight.

The term *distance education* can convey different meanings, especially across international boundaries. Related terms are bandied about as interchangeable (distance education, online learning, distance learning, virtual learning), but semantic differences do exist. One difference might relate to whether one *learns* or one is *taught*, a question of increasing complexity as instructors become more literally and figuratively distant from their students. Distance education is not necessarily conducted online. The correspondence courses of decades past are also a form of distance education. Now, well into the revolutionary digital age, we have the technological means to provide unparalleled access to knowledge for every remote village on each rise, crevice and plain of Earth.

The Digital Divide

The World Bank (2002) has determined that higher learning is vital in developing national productivity and the ability to compete globally. However, with only 17 percent of the world's adults able to obtain some form of higher education, distance education and e-learning are often enthusiastically embraced as a means to efficiently scale education to fulfill the need (Irvine, 2003). Aspiring college students around the world may benefit from a new era of transnational higher education delivered through distance technologies offered by joint multinational university ventures (Altbach, 2004a).

Technological innovations are coming so fast that scholars are unable to keep up with the developments in books and reports, and only the daily updated output of journalists can keep up with it all (Trow, 2001). However, with the rapid hardware and software breakthroughs, before long newer information technology will provide human interaction in a high-definition and three-dimensional telepresence, allowing for distance education to seem comparable to a face-to-face experience (Duderstadt, 2000). Already the current experience with the asynchronous distance learning process can be just as effective as the classroom experience in terms of learning and costs, and in some technical ways may already be superior to regular courses (Bok, 2003). Majorities of academic leaders are expressing a belief that online education on the whole may prove equal or superior to face-to-face instruction, and will become even more so in the near years ahead (Allen & Seaman, 2003).

Unfortunately, there is the paradoxical problem where students who might benefit the most from distance learning may not have access to the technologies and tools necessary to participate fully in the *knowledge society*, furthering a digital divide that might actually lead to greater disparities in educational opportunity (Moore & Tait, 2002). As we began the 21st century, at the heart of the digital divide was the technological divide. Only one in 20 people around the world were online, and most of those (about 60 percent) lived in North America, home to just five percent of the world's population. In all of Africa, there were a mere 14 million phone lines – fewer than in Manhattan or Tokyo (Billions, 2000).

No one agency or nation could afford the incalculable costs of providing universal Internet access. However, many organizations, companies, and individuals have been working to bridge the gap one connection at a time through targeted and cost-effective efforts. Bernard Krisher, a 69-year-old former *Newsweek* journalist, brought online education opportunities to one of the poorest villages in Cambodia devoid of electricity and phone lines. A satellite dish provided a continuous 64,000-bits-a-second connection to a small group of computers in the village, powered by a simple solar power system. The eventual goal: to construct 200 rural schools in Cambodian villages, under a program in which donors contribute \$14,000 to build small school houses, with matching funds from the World Bank (Markoff, 2000).

In 1996, operating under a \$400,000 grant from USAID, the Network for Democracy launched the National Telecottage Program in Hungary. By 1997, the program had established 14 telecottages across the rural regions of Hungary, providing “equal (access) opportunity for all” (Telecottages, 1998). The telecottage centers provided public Internet access to local low-income residents for information services including education and training, job hunting, and local development assistance.

Leaders representing the *Group of 8* nations established a *Dot Force* at a summit in Okinawa to help developing countries reap the educational and other benefits offered by new information

technologies, helping to bridge the “technological gap that separates the world's haves from the have-nots” (Simms, 2000). Organizations including the United Nations, the United States Agency for International Development, as well as numerous other government and private organizations worldwide have advocated and devoted resources to enhancing global access to communication technologies. The problem remains in how to transfer all this good intent into educational content delivered to the huddled masses yearning to learn free.

The World Economic Forum, comprised of business leaders from major multinational corporations, prepared a 35-page recommendation on how the world's leaders might bridge the digital divide through public-private sector initiatives (Drake, 2000; Yamada, 2000). WEF member Richard Li said, “It's really not a digital divide, it is an education divide, and information technology is only a conduit to promote education.” Among the WEF recommendations:

- Provide high-level political engagement needed to give real momentum and public visibility to the digital opportunity as a broad-scale initiative.
- Establish a high-level working group on the global digital economy.
- Establish through the G-8 governments a special financial assistance program to fund technology infrastructure development.
- Create a Peace Corps-style volunteer group, and establish local technology community centers.

Finessing the Financials

Education analysts forecast that the worldwide market for education could reach as high as \$2 trillion in revenues with the growth of for-profit education, along with universities opening transnational satellite campuses, and education content providers tapping communication technologies for international e-learning opportunities (Irvine , 2003). The numbers also demonstrate a precipitous worldwide climb in higher education enrollments. From 1950 to 1997, global postsecondary education enrollments increased from 6.5 million in 1950 to 88.2 million in 1997, and are forecasted to reach 160 million by 2025. However, even though global demand for higher education is growing at double-digit proportions, the resources for paying the tuition bill are low or nonexistent in large parts of the world, with insufficient government funds to meet the full educational needs even in richer nations. Given this stark imbalance, higher education must seek new avenues of delivery tapping new technologies able to transcend national boundaries, such as those provided through distance learning programs.

Traditional institutions may balk at the high cost of developing online courses, especially when going up against challengers who have made investments exceeding \$1 million per course; costs which must be recouped through student tuitions and fees (Oblinger, Barone, & Hawkins, 2001). Some business analysts have predicted that through fundamental changes in the economics of information wrought by the Internet age, the forces of competition will drive the cost of information down to the marginal cost of its reproduction – to the point that tuition for online courses will eventually be free, paid for through donations, advertising, and other marketing strategies targeted at a captive audience (Weigel, 2000). One example of such free learning is the Fathom online learning website, operated by Columbia University. The University of Chicago, RAND, the American Film Institute, and the Woods Hole Oceanographic Institution, and others have provided content for the Fathom site available free to the public at <http://www.fathom.com>

Barnes & Noble University at <http://university.barnesandnoble.com> has offered a free assortment of classes ranging from a one-day seminar to 12-week programs in subjects ranging from astronomy, to literature, to yoga exercises. Many of the courses are based on books in the field, taught by the books' authors. It is "highly recommended" but not required to purchase a book for participation in the courses. Other online content providers – distance education fitting within that less-than-glamorous heading – will be battling for market share, each scrambling to find the right business model as Darwinian forces clear the ground and define the turf.

Higher education is now in a new era of power and influence, where the push for market-driven profits has surpassed politics and ideologies in the realms of international relations. Rather than governments and armies, it is multinational corporations, media conglomerates, and even universities that serve as the neocolonists seeking to dominate in the global marketplace (Altbach, 2004b). However, commercial for-profit interests alone will not meet the world's needs.

To ensure distance education opportunities reach across economic borders, we need to compile, mobilize, and coordinate international donor efforts: government support through transnational agencies such as the United Nations, the Group of 8, the U.S. Agency for International Development, the World Bank, the British Know-How Fund; private persons and programs such as the United Way International, the Soros Foundation, C.S. Mott Foundation, Bill Gates, Steve Case; university and foundation scholarships; telecommunications industry investment in infrastructure development. With a long-term vision and social perspective, the financials for global distance education may well fall into place. Yes, it will be costly. But as former Harvard President Derek Bok advised, if you think education is expensive, try ignorance.

Overcoming the Peril

The future of higher education around the world has much riding on it, in terms of peril for a critical mission unfilled, as well as the promising potential of a job done right. Success or failure may be determined by how well the guardians of academia meet the looming challenges of applying new technologies and providing access to universal learning. There are a number of threats to the successful development of access to global distance education, calamitous hazards if we fail, and still even new dangers that may be created if universal access is indeed successful.

Globalization may be a prominent buzzword in the new millennium, but the concept of national isolationism is already rendered defunct by last century's nuclear age. Certain transnational phenomena respect no borders: disease, political instability, radioactive fallout, poverty, refugee migration. It has become cliché that the solution to many of the world's woes is education. Now we have the means to make that theory a practice, if not for humanitarian reasons, then for global self-preservation.

The World Bank (2002) reported it found promise in the new technologies supporting higher education, however warned that the dangers of digital divides within and between nations could counter the benefits. The worry is that poor nations lack the education, infrastructure and political policies to support the spread of a phenomenon that is boosting trade, productivity, employment and private-sector wealth elsewhere. "This is all about self-interest," said Vernon J. Ellis, a member of the World Economic Forum task force proposing means to bridge the global technology gap. "There is nothing wrong with self-interest, as long as it is enlightened, long-term self-interest" (Markoff, 2000).

If it is true that knowledge is power, then certain totalitarian regimes are bound to feel threatened by an educated and empowered public. According to the human rights organization Freedom House, at least 20 countries – such as Myanmar, Cuba, North Korea, and China – have restricted their citizens' access to the Internet. Foreign educational efforts – whether online or onground – may be especially suspect. Education in particular has been jealously guarded in many nations and is carefully protected as a matter of nationalism and a solidifier of cultural differences (Irvine, 2003).

Providing isolated peoples online access to worldwide communications is not necessarily a clear-cut end in itself, as witnessed by some of the pitfalls found by introducing technology to village life. Cotopoxi men remote in Ecuador used their aid-provided computer equipment to access online pornography rather than crop information, much to the dismay of Cotopoxi women. And when impoverished women of the Wapishana and Macushi tribes in Guyana began making “big” money by marketing their hand-woven hammocks over the Web, the threatened male hierarchy drove them from their homes (Romero, 2000). Strategies for providing Internet access must coincide with developing content schemata suitable for and beneficial to global needs.

Others are concerned that instructors will lose control over the courses they teach, and their lessons will be modified or prepackaged into a one-size-fits-all lecture by someone at an online institution (Ellin, 2000). Educational content innovation may be impeded over issues of intellectual property, such as who owns and who should control content that appears online. Online education may take a technocratic rather than Socratic turn: instructors, students, and content reduced to modular components, installed, formatted, and executed. Ultimately, the threat of distance education might be to education itself – will we sacrifice academic quality for the sake of quantity?

Ironically – in this age of instant rich media communications with exponentially multiplying bandwidth and dimensions, when nearly the entire knowledge base of human experience is digitalized and accessible – the dangers of isolation and division between peoples are perhaps higher than ever. Further, if the global network connections that do form simply serve a purpose of homogenization, at a cultural cost of diversity and the survival protections that diversity provides, society may be the worse for it.

The Culture Divide

Another counter-juxtaposition of circumstance is that the demand for international education is so high, while at the same time teachers skilled with global competence are so few. Universities and college lack sufficient foreign language and international studies faculty – particularly in less common languages and nations – and faculty in professional disciplines needing greater international expertise such as business, public health, law, and the environment (ACE, 2002).

Curricula and pedagogies may need to be adapted to a wider array of cultural and linguistic differences, especially in settings with increasing numbers of international students as institutions seek to expand their enrollments beyond national borders (OECD, 2003). Simply providing educational content is not necessarily a worthy goal, unless the content is viable, valid, credible, and appropriate.

Some are concerned that the act of internationalizing education may actually mean Americanizing it, since the United States is the dominant online-education purveyor (Statland de

Lopez, 2000). Academic institutions offering education to other nations may frequently be insensitive to the characteristics of a local culture and the students' particular needs. Some analysts are criticizing that universities may offer lower quality programs abroad than are found on the home campus, and that the program content does not focus on local concerns, while the primary use of English as the language of instruction raises questions of cultural imperialism (Newman, Couturier, & Scurry, 2004).

To accommodate the increasing demand for language and cultural diversity in the globalization of distance learning, there will be a huge market demand for appropriate course materials, and numerous education companies and universities are now creating content and programs in multiple languages (Irvine, 2003). Researchers are devoting studies to identify effective methods to ensure that international cross-cultural harmony may be better realized (e.g., Bruffee, 2002; Conceicao, 2002). It may well be that profit incentives rather than social visions are what ultimately motivate governments and people to transcend their differences and strive for cooperative and peaceful interaction.

Achieving the Promise

Governments and individuals around the world are increasingly turning to higher education to provide students with new horizons through a deeper understanding of the world at large (OECD, 2003). Several countries, such as India and South Africa, are already heavy importers of distance learning programs through top exporting countries including the United States, Australia, and the United Kingdom; while other nations are developing their own distance learning technologies and programs (Eaton, 2002). Distance education and training will also likely play an important role in expanding access to education opportunities throughout Central and Eastern Europe, provided there is sufficient funding and regional collaboration to develop the necessary communication infrastructure (Moore & Tait, 2002).

Especially in the low-income but high-population countries of the world, the new technologies are seen to promise significant learning opportunities, even though lack of Internet connectivity, regional bandwidth, local access and professional competence pose barriers (Irvine, 2003; Moore & Tait, 2002). The regional disparities are great, as some of the largest populated regions (e.g., India and China) also have the lowest concentration of telecommunication services. In many countries, the demand for higher education is actually driving the development and expansion of new technologies, along with new business opportunities and economic growth (Irvine, 2003).

The gap between the need and the supply for higher education has driven the emergence of a global business network. Among the participants in this market-guided network are traditional and digital publishers, media companies, software and hardware producers, consultants, communication services, as well as for-profit and nonprofit education providers (Irvine, 2003). Such players as these may help to address the social and economic divides caused by "devastating consequences of ignorance and exclusion from the world marketplace" (Irvine, 2003, p. 104).

Returning to the opening quotation, we are truly living in a time when no child need live an entire life in ignorance; no inquiring soul need go uninformed. The calling of our age is to engage the will to make it so. We must first advance through many challenging social, political, and economic spheres. Each of these challenges may prove terminally problematic. The fiscal tyrannies of a competitive market may well deny the commodity of knowledge to those people

living beyond the margins of a profitable business plan. Despotic governments may inhibit information flow to their peoples under the guise of national security. However, the greatest hurdle could well be within the social sphere: do we truly believe that universal education for its own sake is a worthy aim and a fundamental right, and are we willing to pay the costs?

Perhaps among the most valuable aspects of the new potential in global higher education are the benefits to be gained from learning about world problems that transcend national boundaries. By such better understanding, humanity may best discover solutions that tap the “interconnectedness of systems – cultural, ecological, economic, political, and technological” (Tye, 2003).

Some antiglobalists have protested against support for providing online education to impoverished nations, rightly observing the obvious: “Poor people can't eat a laptop” (Thomas, 2000). This is true. Poor people can neither eat a hammer nor a textbook, but these are recognized as valuable tools in reducing poverty. Globally accessible distance education should not be an either/or proposition, but a this/that solution. Bread *and* modems. Health care *and* computers. Shoes *and* wireless access. Once the general intention is unleashed, the specific means may inexorably come in small bits and bytes. As it has been simply put: now that we can, we must.

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