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**DISTANCE EDUCATION:
Will Global Learning Get Online?**

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. This promise means that all children by virtue of their own efforts, competently guided, can hope to attain the mature and informed judgment needed to secure gainful employment, and to manage their own lives, thereby serving not only their own interests but also the progress of society itself.
(A nation at risk, 1983)

Hardly could the framers of the above quote in 1983—serving on the National Commission on Excellence in Education and writing from a rather nationalistic perspective—have imagined the global applications of this marvelous sentiment that would be possible come the new millennium. Through online and other distance education models, informed judgment for all the world’s children (and adults, for that matter) by virtue of their own efforts and abilities is no longer a visionary’s dream, but a visible reality within our peripheral sight.

It is certainly so in America. Location is no longer a limitation in gaining access to the best information bases in the nation. According to the United States Department of Education, at least one-third of the 3,500 colleges and universities in the United States now offer distance-learning courses; within the next two years, four out of every five are expected to do so (Ellin 2000). And learning online does not necessarily mean learning

less. Evidence indicates that some students learning in a virtual online environment may perform better on exams than their on-ground classroom counterparts (Schutte 1996).

The term *distance education* can convey different meanings, especially across international boundaries. Some 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. Kearsley (1997) provides a useful definition: “Online education refers to any form of learning/teaching that takes place via a computer network. The network could be a local bulletin board system (BBS) or it could be the global Internet and World Wide Web. The network could also be a local area network (LAN) or an intranet within a particular organization.” Online education is a component of “distance education,” in that the online instructor could be in the same room, or 180 longitudinal degrees away. Distance education is not necessarily conducted online. The correspondence courses of decades past are also a form of distance education.

But well into this digital age of the 21st century, we now have the technological means to provide unparalleled access to knowledge for every remote village outpost on each rise, crevice and plain of Earth.

CURRENT LITERATURE

The Promise

Some 700,000 American students took online courses in 1999, and the number will likely triple by 2002 – ultimately comprising a sizable bite of the \$200-billion annual take by the entire higher education industry in the United States (Marcus 2000). Online education providers range from [Harvard University](#) to [NotHarvard.com](#). Prestigious Ivy League universities, state college systems, for-profit organizations – even [Barnes & Knoble University](#) (all it costs is the price of your books) – have jumped on the distance education bus. Within the next two years, a projected 80 percent of all American colleges will be offering online learning courses (Ellin 2000). Some institutions are already providing entire degree programs online; [Jones International University](#) leading the way in 1999 as the first regionally accredited fully online university in the United States.

And, as in many other modern innovations including the Internet itself, the United States military may be a driving force in developing online learning: the Pentagon is proposing a sizable budget allocation – including a \$600-million line item for the US Army over the next six years – to enable interested soldiers to take distance-education courses over the Internet at little or no cost (Carr 2000).

Not to be left behind, other universities around the world are developing their own online offerings, including a coalition of 18 leading universities from ten different nations across Europe, Asia, and Canada, banding together this year to form [Universitas 21](#) (News Corporation, 2000). Universitas 21's online courses are scheduled to start in 2001.

Educational opportunities will be ubiquitous, for those who can afford the fees and access. Concerned over those who can't, global organizations and business leaders are ringing the alarm for support.

At a recent summit in Okinawa, leaders representing the *Group of 8* nations (Simms 2000) agreed to establish a *Dot Force* task force 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.”

A report by a group of experts for this year’s United Nations General Assembly recommended that the United Nations amass \$2 billion from its own funds, private industry and other sources to help poor nations catch up across the *digital divide* (Billions on side, 2000).

The United States Agency for International Development (USAID) has supported technical assistance projects such as the Network for Democracy program operating in Hungary, providing *telecottage* access to the Internet for impoverished citizens across the country (Telecottages in Hungary, 1998).

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 that would operate for at least three years.
- 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.

Other business leaders have pledged their personal financial support for enhancing global educational opportunities (Loose 2000). High-tech MicroStrategy billionaire Michael Saylor donated \$100 million to create an online university offering an “Ivy League-quality” education cost-free for anyone in the world. Microsoft’s Bill Gates has pledged \$1 billion in scholarships. America Online’s Steve Case has provided more than \$100 million to his own foundation.

The problem remains in how to transfer all this good intent and educational content to the huddled masses yearning to learn free.

The Technology

At the heart of the digital divide is the technological divide. Only one in 20 people around the world are online, and most of those (about 60 percent) live in North America, home to just five percent of the world’s population. In all of Africa, there are 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 are 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, is bringing online education opportunities to one of the poorest villages in Cambodia, devoid of electricity and phone lines. A satellite dish provides 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 provide public Internet access to local low-income residents for information services including education and training, job hunting, and local development assistance.

In Ukraine, where fewer than 5% of the people have Internet access and the average monthly income is less than \$50, Golden Telecom Business Solutions has invested more than \$20 million to expand its fiber optic cable network and data services to each of the 26 regions throughout the country (Sych 2000). The telecommunications company is planning even larger investments, though the prospects for short-term returns are slim. “At the moment the market may be very small, but in the longer run, we view the Internet as an important growth area,” said GTBS general manager Ashley Reid.

Though a telecommunication infrastructure conducting online educational content to distant corners is expensive and high-tech, the terminal computer can be very simple and old-generational. It doesn't take a top-speed computer processor to receive and

transmit basic text and graphics. As computer users in the United States discard their older models, charities are seeking ways to refurbish and distribute the toss-offs to needy recipients (Recycling old computers, 2000). The National Safety Council estimates that in the United States some 300 million personal computers will become obsolete over the next four years, most of those adding to the stockpiles of solid and hazardous waste. Goodwill International is now receiving more than 100,000 computers a year and refurbishes many of them in programs to train future computer technicians. Other organizations, such as [National Cristina Foundation](#), work to match computer donors with recipients.

Distance education need not necessarily be online to be effective. Computer-readable compact discs can contain large amounts of data – entire encyclopedias and course materials. “Software is going to replace classes as we know them,” said Roger Schank, director of the Institute for Learning Sciences at Northwestern University (Green 2000). Software courses can provide multimedia simulations not available in current online offerings. “When you look at online courses now, what do you see? Text online with a quiz. We’re not taking a lecture and putting it on screen. We’re restructuring these courses into goal-based scenarios that will get kids excited,” rendering traditional courses – and many professors – obsolete, said Schank. “New technology is going to give every student access to the best professors in the world.”

The Financials

The costs of distance education can reach from the incongruently high to the dirt-cheap. [Duke University](#) charges \$95,000 for its Global Executive M.B.A., a 19-month-

long program that mixes on-campus and online study from abroad. That is considerably more expensive than tuition for the traditional two-year M.B.A. program at \$28,200 per year. For the past three years, Stanford's engineering school has taught 200 courses to students all over the world – at 140 percent of the school's normal tuition (Ellin 2000).

The initial development costs of online courses can run quite high. UNext.com, a new Internet university, is spending about \$100 million on course development – as much as \$1 million per course – even before it opens for business (McCormick 2000). “UNext has an opportunity to be *the* truly leading Internet university,” says Michael Moe, Merrill Lynch's expert on the education market. The company (operating as Cardean University with cooperating schools including Columbia, Stanford, Chicago, Carnegie Mellon and the London School of Economics) envisions a future student body of millions, and is projected to charge tuition amounting to about 80% of that charged by top business schools.

Some business analysts (Weigel 2000) predict 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 advertising and other marketing strategies targeted at a captive audience. Indeed, that is the model evolving for the Fathom distance-education Web site, owned by Columbia University (Carlson 2000). The University of Chicago, RAND, the American Film Institute, and the Woods Hole Oceanographic Institution will provide content for the Fathom Web site available free to the public.

[Barnes & Noble University](#) is offering a free assortment of classes ranging from a one-day seminar to 12-week programs in subjects ranging from astronomy, to literature, to C++ computer programming. Many of the courses will be 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.

The economics of e-commerce are evolving, devolving, crashing, and rebirthing at a confounding rate. The global e-commerce market stood at \$150 billion in 1999, and is expected to rocket to \$2-3 trillion by 2003 (Billions, 2000). Online content providers – distance education fitting within that less-than-glamorous heading – will be battling for market share as each scrambles to find the right business model as Darwinian forces clear the ground and define the turf.

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, Michael Saylor; 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 the old bumper sticker advised, "If you think education is expensive, try pricing ignorance."

The Menace

There are a number of threats to the successful development of access to global distance education, and hazards if we fail, as well as new dangers that may be created if universal access is indeed successful. Among these perils include knowledge exclusion, oppressive despots, cultural intrusion, and the cheapening of educational quality.

Globalization may be the new buzzword of the 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's become cliché that the solution to many of the world's woes is education. Now we have the means to make the theory a practice, if not for humanitarian reasons, than for global self-preservation.

"In large parts of Africa today, young girls are more likely to die before reaching the age of five than they are to learn to read," U.S. Treasury Secretary Lawrence Summers told a U.N. forum on information technology (Billions, 2000). "To put it bluntly, until we see substantial improvement in these figures, the dream of putting the world's poorest nations on a fast track to technology and growth will remain just that: a dream." The worry is that poor nations lack the education, infrastructure and political policies to support the spread of a phenomenon which 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 – including Myanmar, Cuba, North Korea and Iraq – thoroughly restrict their citizens’ access to the Internet (Kaplan 2000). The Chinese government has been fervently attacking online access and media freedoms. It’s unlikely they will respond with greater tolerance of online academic freedoms. “Enemy forces at home and abroad are sparing no effort to use this battlefield to infiltrate us,” said a recent editorial in the Communist Party’s national newspaper, *The People’s Daily*. The Chinese government has shut down Web sites for posting “counterrevolutionary content,” a euphemism that often means nothing more than criticism of the government (Smith 2000). In Myanmar – a country of 48 million people – access to the World Wide Web is strictly banned, and unauthorized use of a modem is punishable by 7 to 15 years in jail (Barron 2000).

Providing online access is not necessarily a worthy end in itself, as witnessed by some of the pitfalls found in 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 (Romero 2000). 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. Strategies for providing Internet access must coincide with developing content schemata suitable for and beneficial to global needs.

Nor is simply providing educational content a necessarily worthy goal, unless the content is viable, valid, credible, and appropriate. Some are concerned that internationalizing education may actually mean Americanizing it, since the United States is the dominant online-education purveyor (Statland de Lopez 2000). “Americans are not yet aware of the different learning styles and expectations in other countries,” said Vivian Antaki, dean of Endicott College’s Mexico City campus, providing distance education degrees in cooperation with online education portal Virtualstudent.com.

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, like 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?

CONCLUSIONS

Some anti-globalists have protested against support for providing online education to poorer nations, rightly observing the obvious: “Poor people can’t eat a laptop” (Thomas 2000). This is true. Poor people can neither eat a fishing pole, nor a hammer, nor a textbook. But these are recognized as valuable tools in reducing poverty.

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.

No aspiring child need live 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 the 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. And despotic governments may inhibit information flow to their peoples under the guise of national security. But 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?

Once the general intention is unleashed, the specific means may well and inexorably come in bits and bytes. As said the successful social slogan of the 80s, “Now that we can, we must.”

ADDITIONAL RESEARCH

This paper unavoidably raises more questions than provides answers. There are a number of research areas worth investigating further:

- **Validity of distance education:** further research is needed comparing traditional learning methods with the long-term benefits and shortcomings of online learning within and across academic disciplines.

- **Maximized cross-cultural effectiveness:** how should educators in various (and poorer) cultures be involved with the institutions developing the cognitive and cultural presentation of educational content?
- **Transnational government reaction to online learning:** conduct surveys (similar to [G.A.T.E.'s](#) online survey) measuring various governments' reaction to online learning and development of Internet access; survey foreign ministry officials for government reactions.
- **Financial models for online education:** monitor developments in popular press and academic journals relating to various models developed by distance education providers.
- **Financial assistance for global distance education and infrastructure development:** compile database of government, institutional, industry and private support sources for distance education development and scholarships.
- **Viable and valuable content:** survey global target audiences for types of educational content desired (e.g., third-world villages).

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