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Jason Ohler, Director
Educational Technology Program
University of Alaska Southeast

ONLINE JOURNAL OF DISTANCE EDUCATION AND COMMUNICATION

In the industrial age, we go to school. In the information age, school can come to us. This is the message implicit in the media and movement of distance education.

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Welcome to the fourth year of the Online Journal of Distance Education and Communication. Help has arrived in the form of Ruth Ryan, support staff at the University of Alaska, who will be doing most of the editing and layout for the Journal. As an editorial and layout staff of one for the past three years, I welcome

this institutional support most gladly. What it means to you is that it is possible for the Online Journal to go out more often, more regularly. And with Paul Coffin's continued support on the technical end, the Online Journal has a very promising future.

We are always happy to consider your contributions. Please make them brief, two pages maximum if possible. It can be something already published or an excerpt from a longer piece. It can be an article, request for help or information, book announcement, or anything that is pertinent to the field of distance education. We look forward to hearing from you.

T A B L E O F C O N T E N T S

ITEM 1.

Alternex: A Computer-Based Network by and for NGOs

by Enzo Puliatti
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The ability to transmit data electronically, allowing people around the globe to send messages or documents from one computer to another, presents tremendous opportunities for collaboration between individuals and groups with common interests. Developed largely to meet the needs of large corporations, electronic mail and computer conferencing have proved to be equally important for international cooperation, science, education and government.

A growing number of developing countries have already installed national data communication systems and electronic mail systems. Yet, even with these capabilities, a common problem is high cost of international computer-based communication-up to twenty times the cost in industrialized countries. There are two main reasons for this expense: most electronic mail systems are based in the United States or Europe, requiring an expensive international data communications connection; and royalty fees and hardware used for electronic mail drive up the price of this service. These high costs generally mean that such services are unaffordable to most academic and private users, and to non-profit organizations. But now non-governmental organizations (NGOs) in Brazil have discovered a low-cost way to enjoy the benefits of computer networking.

The Brazilian Experiment

In Rio de Janeiro, a research group known as IBASE (the Portuguese acronym for Brazilian Institute of Social and Economic Analysis), which carries out socio-economic analysis in collaboration with labor unions, church groups, slum dwellers associations and other community groups, has been one of the first Brazilian NGOs to use microcomputers for research and data communications. In fact, IBASE has stimulated many other NGOs throughout Latin America to use these tools.

Since the mid-1980s, IBASE has been able to communicate via computer with several Latin American and European NGOs through a commercial service known as Geonet. But this system required all communications to be routed through London, at considerable expense, even when IBASE wished to contact colleagues in Santiago or Lima. So since 1987, IBASE has been experimenting with electronic mail systems that would permit cheaper information-sharing with partner organizations and academic institutions and that it could operate and maintain itself.

It soon made contact with the Institute for Global Communications (IGC), a U.S.-based NGO devoted to the application of low- cost and small-scale computer technology. IGC has developed a microcomputer-based system to operate a complete electronic mail, computer conferencing, and on-line data base service, without the need to subscribe to commercial services. The system has been successfully implemented to link up approximately 5,000 activists and NGOs in more than 70 countries through its two main computer networks: PeaceNet, which is devoted to peace and disarmament issues, and EcoNet, which is devoted to environmental concerns.

The collaboration between IBASE and IGC resulted in the proposal to install a similar system, which would be automatically linked to IGC's international computer network. The project, known as Alternex, received financial support from the United Nations Development Program and from a private Italian donor agency.

In July 1989, only a few months after approval of the project, Alternex was fully operating 24 hours a day. Today, more than 130 individual and group users in Brazil and abroad participate in the network, and this

number is increasing daily. Users pay a monthly fee, the equivalent of about US$7.50, which includes one hour of on-line connection. On-line connection runs approximately $5 per hour, cheaper than nearly all other electronic mail services. Any computer equipment, from small personal computers costing as little as $300 in the international market to the terminal of a large mainframe system, can be used when connecting with Alternex. The connection can be made through standard telephone lines, by using a modem in conjunction with the computer terminal or by using a special line for data communications.

Most Alternex users rely on electronic mail and computer conferences as a way to coordinate regional activities with their counterparts, reaching even the most remote areas of the country. For example, local environmental organizations that mobilize their own resources use the system to make inquiries of IBASE's comput- erized directory of environmental development donors and the projects they finance, or they may conduct the search themselves. Groups active in the Foreign Debt Campaign, which mobilizes support for alternative solutions to Brazil's debt crisis, use electronic mail to coordinate joint activities. In still other cases, NGOs use the system to communicate easily with donor agencies throughout the world or as the cheapest and most appropriate channel to distribute their news clippings or press releases. Several NGOs are also acting as "community E-mail agencies," providing electronic communication services to small local groups, permitting interaction with their counterparts around the world. And, through IBASE's international connection, Alternex users can now link up with the 4,500 users of the PeaceNet and Econet systems, as well as to commercial services.

How the System Works

The system designed by IGC combines low-cost, standardized computer equipment based on the new generation of IBM-compatible machines with software it has developed in collaboration with Community Data Processing, another NGO. The tremendous increase in the power of microprocessors in personal computers today made it possible to design such sophisticated software. As a result, the new system has all the capabilities of mainframe computer-messaging systems now in use throughout the United States, Europe and Japan, but the hardware costs only about $15,000-about one tenth the cost of a mainframe system--and the software is free to NGOs which collaborate with IGC. Unlike the centralized systems used by the large commercial telecommunications services, this microcomputer-based system distributes the message to whatever service can deliver it quickly and cheaply. One microcomputer-based system can served a limited geographical region, but each regional system can interconnect with any other regional system.

A primary advantage to this arrangement is that it avoids the previously high cost of international communications connection. The concept behind the Alternex system is that the user never needs to make an international connection, no matter where he is. Users make a local call, but still address their electronic mail internationally. The local messaging system collects the international mail, bundles and compresses it, then sends it to the appropriate foreign messaging system for distribution using a special high-speed connection. This means that the service is far less costly, and therefore affordable for groups with limited resources. Finally, although most commercial electronic mail services will not link up users across different networks other than their own, the present system allows different systems to exchange messages, including various commercial services and the hundreds of academic computer networks, as well as fax and telex. And, with advances in telecommunications that allows the transmission of data practically error-free, even using poor quality telephone lines, remote areas in the some of the least developing countries now enjoy the possibility of communication via computer.

Prospects and Problems

The experience of Alternex in Brazil, and a similarly successful experiment with another non-governmental research center in Nicaragua, represent the first experiences of computer-based communication networks established and operated by NGOs in developing countries. The initial reaction from Alternex users in Latin America has been tremendous excitement for the potential for linking NGOs, journalists, educators, and researchers throughout the region and the world. As a result, the UNDP is providing resources to extend access to this technology to other Latin American countries.

The first task is to demonstrate the technology to local institutions and to continue testing the technology in countries undeserved by international data transmission networks. Currently, IGC is working on a portable version of the system to be used in demonstrations and on-site tests in Bolivia, Ecuador and Peru. Where public data networks do not exit, these visits might include the installation of small satellite earth stations; the University of Hawaii, which coordinates the Peacesat education project, has agreed to let the Alternex project use its satellite free of charge.

IBASE is likely to become a regional center of expertise. It has already assisted one Uruguayan NGO in setting up an electronic mail and bulletin board system. It has also worked with the Brazilian Interdisciplinary AIDS Association and the Brazilian chapter of the International Interdisciplinary AIDS Foundation to set up SIDSA, a computerized database on AIDS, and to make the database accessible to those in other parts of the country via telex, public data networks, or telephone lines.

Significant problems remain, however. If the system is to be widely available to small organizations in locations that are not well served by public data networks or even telephone service, several technical refinements, and in some cases, technologically appropriate and creative solutions are necessary. And, until automatic translation programs become available, the lack of a common language represents a significant constraint to conducting international computer conferences. Finally, there is still room to increase the system's cost-effectiveness through improved operations and methods of bulk data transfer; the Alternex project continues to experiment with these approaches.

Enzo Puliatti is an officer of the Regional Bureau of Latin America at the United Nations Development Program in New York.

The views expressed in this article are his and not necessarily those of the UNDP.

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ITEM 2.

Networking Elsewhere in Latin America
by Andre Roussel

The Alternex project in Brazil is only one among many examples of computer networking among research and development organizations Latin America. But in contrast to Alternex, most reply on US- and European-based electronic mail services for inter-country connections. Following is a sample of other activities in the region:

- Eight Latin American research institutions involved in the United Nations University Biotechnology Research Project on Brucella, a bacterial disease which afflicts animals, are using microcomputers and an electronic mail system to communicate among themselves and with cooperating institutions outside the region. A recent evaluation indicated that users exchanged about 16 messages and submitted three entries discussing their finding to the on-going computer conference each month.

- Since 1985, the Instituto Latinamericano de Estudios Transnacionales (ILET) in Santiago, Chile, has played a leading role in experimenting with electronic mail and computer conferencing and in encouraging other non-governmental organizations in the regions to follow suit.

  In the process, it identified the technical, legal, and economic conditions necessary to permit computer networking. It has also produced a well-illustrated booklet in Spanish, HOW TO DESIGN COMMUNICATION NETWORKS, based on its experience in establishing computer links with NGO research centers in Argentina, Brazil, Peru, and Mexico for joint research projects. A follow-up effort will test and evaluate software packages used within the Latin American Trade Information Network.

  In addition, ILET coordinates Latin American participation in Interdoc, a global computer network of non-governmental researchers active around labor and economic concerns, and document its networking experi- ence in Interdoc's bimonthly bulletin, CONTACT-0, published in both English and Spanish.

- ILET's sister institute by the same name in Mexico City has also carried out an experimental effort linking four Mexican universities via electronic mail. University researchers compil- ing databases on subjects such as medicine, literature, desert plants, and communications are using the system to eliminate dup- lication of effort and to share methodologies. As part of the project, ILET has published a directory of databases produced by Mexican institutions.

Still, the full potential of such systems have yet to be exp- loited. A study by Soledad Robinson of ILET-Mexico showed that a generally low level of computer literacy and the lack of awareness of available information sources hindered use of existing comput- er-based information systems. Stronger efforts are needed to in- crease awareness about he capabilities of information systems and to provide training in operations.

Andre Roussel

ITEM 3.

<div align="center">

GLOSAS - Global Systems Analysis and Simulation
A Vision That Can Change The World
by Takeshi Utsumi, Ph.D.,
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Human society faces urgent problems which require a global restructuring of education at all levels. Quite apart from what any government or university does, or does not do, something highly significant is happening to transform global education, cradle to the grave--the coming of a "Global (electronic) University."

Sometime in the next century it will be possible for almost anyone, at home or at own college, to take course from universities on other continents, through a worldwide electronic educational system that can draw upon an array of resources that can empower individuals all over the world.

Several current developments in "distance education" are steps towards such global education. First, are consortiums of universities, such as the National Technological University (NTU) in the USA, and universities in two countries that develop "sister school" relationships. In the American state of Pennsylvania it is becoming possible for any high schools student, in the smallest rural school, to connect via computer network to take any advanced course that his own school cannot offer, --with 20% better performance than in regular face-to-face courses. Millions of students are enrolled in distance-education courses in China, India, and elsewhere.

Second, are such projects as the "University of the World" which is developing "national councils" to coordinate government, private education, and corporate education programs so as to participate in two-way sharing of educational resources.

We here report a third, which began in 1972 when Takeshi Utsumi initiated the GLObal Systems Analysis and Simulation (GLOSAS) Project for global peace gaming, a computer simulation to help decision-makers construct a Globally Distributed Decision Support System for win-win alternatives to conflict and war, to explore new alternatives for a world-order capable of addressing the problems and opportunities of an interdependent globe.

Over the past dozen years, GLOSAS played a major role in making possible the extension of U.S. data communication networks to various overseas countries, particularly to Japan, facilitating the expansion of American and Japanese information industries to foreign markets and the deregulation of Japanese telecommunication policies for the use of electronic mail and computer conferencing through U.S./Japan public packet-switching lines.

GLOSAS also helped achieve a de-monopolization of Japanese telecommunication industries, thus enabling various private terrestrial and satellite communication service companies to emerge. This easing of restrictions has helped make possible a wide variety of electronic education experiments and programs from continent to continent.

Since 1986 GLOSAS has conducted a series of Multipoint-to-Multipoint Multimedia Interactive Teleconferencing demonstrations, creating a "Global Lecture Hall." The demonstrations included uplinking to domestic satellites, combined with audio and slow-scan teleconferencing, global computer conferencing as well as facsimile for question-and-answer exchanges. The most ambitious demonstration had fourteen sites

linked together, from the East Coast of the United States to the Republic of Korea, and from Anchorage, Alaska, to Brisbane, Australia. This demonstration spanned fourteen time zones and two calendar dates! These demonstrations have helped GLOSAS discover technical, regulatory, economic and marketing impediments to the creation of a global electronic university system.

These GLOSAS experiments are finding and demonstrating low cost technology for underserved countries, such as slow-scan TV over ordinary telephone lines, or packet-radio with a low earth orbiting satellite for computer networking, proposing a different mix of technology for each situation. GLOSAS is seeking to use the Multi-Programming (MPTV) technology (developed in China and Japan) which uses one satellite transponder to transmit as many as 44 different courses simultaneously. GLOSAS also uses the Electronic Information Exchange System (EIES) computer system, from New Jersey Institute of Technology, for constant interaction among students and instructors.

With encouragement of the United Nations Development Program (UNDP), GLOSAS is developing a distributed computer conferencing, database and simulation systems among several Latin American countries; and as a long- range project, GLOSAS is working to help facilitate the establishment of a "three space-station library system" serving the entire globe. A continuing series of demonstrations of Multipoint-to-Multipoint Multimedia Interactive Teleconferencing technology, developed by GLOSAS, uses audio, data, text, computer and slow-scan TV, audiographic, facsimile, packet-radio, packet- satellite and full-color, full-motion video teleconferencing, so that everyone can hear, talk, and see other participants.

Such demonstrations, for example at the XVth World Conference of the International Council for Distance Education in Caracas, Venezuela, in November, 1990, are helping to develop the climate of opinion and experience which can now make it possible for the sharing of lectures, courses and research from continent to continent. Educational officials in a number of Latin American countries feel that such electronic sharing is the only way their educational institutions can keep up with advances in global research and education, in which quality education can be brought to all of their people. A next experiment of GLOSAS may be to extend engineering courses from U.S. universities (e.g., NTU consortium) to learning centers and individuals overseas.

GLOSAS is drafting a "Universal Charter for Global Education," to become the policy of Global University, which is to be presented to UNESCO. The proposal for a global university consortium may be understood as one of the ways that mankind is responding to the critical challenges that confront us at this time in history. Time is ripe for global education. Technology is now available. What we need now are people who are eager to forge ahead toward the twenty-first century education.

For more information, address:

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Also see: "Waging Peace with globally-interconnected computers," in Challenges and Opportunities: From Now to 1001, Howard Didsbury (ed), Bethesda, MD, World Future Society; and "Global Education for

Fostering Global Citizenship," in Transnational Perspectives (Geneva, Switzerland), Vol 15, No 2, 1989.

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ITEM 4.

DANCE OF THE RED LEDS

Electrons vibrate for Poets,
Mehitabel,
Not Programmers.

In the Grim March of Hex
GOSUB minds
Build trellises
Of Logic
So spare they whistle Electric Winds
Enough

To chill my human heart

Lovers must touch the Glass of Phosphor
With hands limp and graceful as
The Michaelangelo;
To summon up the
Passionate symbols

Else bytes will warm the bankers only

Do not the luminous dots ache for
The Backspace of Genius
And The Dance of the Red Leds?

There have been others, Mehitabel

The fashionable Mosaic Makers to the
Emporers of Byzantium
Worked their Craft in Plates of Color
That arched to the sky
In the Temples of the East

Pleasing the plump tourists

But those who know what delights
A young girl's eye think
The Glass Buttons found in the street

Were best

Dreamers of the street made designs
On the ordinary ends
Of a thick bundle of glass rods
Then drew the glass cylinder
Firey hot into a fiber
Oh! so delicately fine that
When cut and polished the
Fragile slices made

The most exquisite mosaic art of all

Took in that ancient city.

Or the number of dark eyed beauties
Who surrendered
To those miniature chips brought by
Impecunious suitors.

When ASCII is for artists, Mehitabel,
Leds will be for Lovers, and the
Troubadours
Of Technology
Will bring Grace to us All

Copyright, 1981
David R Hughes

From Somewhere out in Electronic Space

ITEM 5.

Strengthening Native Communities Through Networking
by Frank Odasz, Big Sky Telegraph
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Communities have always been in a state of evolution steered by new technology, new information, and world events. The view that cultures remain static appears true only in the short term.

American Indian cultures have transformed themselves for thousands of years as tribes traveled, merged with other tribes, shifted from hunters to raising corn, or the reverse. American Indian cultures changed in the 1700s when the Spaniards introduced horses and iron knives. The rifle, white settlers and alcohol changed the culture again in the 1800s. The 1900s have overwhelmed Native cultures through massive development brought on by increasing global mobility and rapid technological advances.

A community can be defined by any group of persons who interact with a common purpose. Perpetuation of a community through education of its members is necessary for community survival. The Hutterites and the Crow are communities dedicated to preserving their beliefs and way of life.

Different types of communities may exist to serve many different levels of purpose. The Dillon bowling community exists to perpetuate social bowling. The Montana Health care community exists to promote health care statewide. There is an emerging global community dedicated to human rights and another global community dedicated to global ecology. Each community exists to perpetuate social interactions toward a specific purpose within the group. This communications activity continually redefines the community as new information suggests new approaches and thinking in achieving the community's goals.

Cultures evolve more rapidly in times of great change, such is the world today. Personal computer telecommunications offer a unique challenge to assist in the definition and strengthening of community groups. Native groups in the past often welcomed strangers and would hold potlatches where generousity, despite meager resources, was common. Across most of America we find less willingness to share despite material excess. Many of us today have forgotton how to belong to, participate in, and to contribute to, a community.

The small, local community is often nearly non-existant in suburban life, where neighbors often live side by side, but don't interact in any way. White culture, and many Native American cultures, have been sidetracked by materialism, and suffer from the lack of a spiritual foundation for living, and for belonging, or contributing, to a community.

Montana is itself a greater community of communities that needs to learn how to better communicate with its own members and with communities worldwide. Who will lead the way in teaching today's communities how to share with each other, in the old way, where we all recognize our sameness and our common spiritual origins? Where we give to others rather than hoard for ourselves. Much of the world needs to be retaught how to create nuturing local communities, and more importantly, to share with the other communities that make up the global community. Perhaps your youth can reteach the world about love and community and perhaps even to love and care for Mother Earth.

The need exists to share knowledge at many levels. Distance education through telecommunications has the power to share knowledge despite distances, as individuals we need to use this capability to strengthen our communities. More than linking mind to mind, we need to link heart to heart and see ourselves in each other's eyes. To hear ourselves in each other's words.

Native Americans carry the dreams and hopes of countless generations of ancestors in an age where personal computer telecommunications can be used to bring together tribal communities to strengthen cultural bonds. The young can assist the old in preserving cultural history, and in sharing it more easily within the tribe and throughout the world. Telecommunications can be used for intertribal cultural training, to allow the Crow to become more Crow, not to become less Crow. Using modern tools such as telecommunications to preserve Crow culture is no different than the Crow learning to use the Winchester to hunt 100 years ago.

Knowledge today is the meat necessary for community survival. Scouts can use telecommunications to seek out knowledge necessary to the survival of a community and bring it home to for all to share. Knowledge on how to use telecommunications to access necessary information can strengthen a community's ability to meet its own needs. In this way, Big Sky Telegraph is the Winchester of the 1900s.

No one can lead this hunt for you, but we can show you how to use these new tools for yourself. You will not see the potential until you have tried it and taken the first step toward your tribe's future in the information age.

Big Sky Telegraph is a model for community communications based on the convenience of personal computer communications. Written messages can often be more personal, more easily shared, and more informative than spoken communications. Many other advantages exist which must be experienced to be appreciated. Telegraph is very flexible and can be used in many different ways.

It is possible for you to establish a community memory electronic bulletin board at the location of your choice, accessible at no charge within the local dialing area, to serve as a reflection of your community and to facilitate communications. Written histories, essays and stories can be collected, preserved and shared. Pow-wows can take place without traveling, by sending and receiving messages of light at any convenient time using a personal computer and phonelines. This is easy to learn, but requires a forward vision of that which could be.

Native American products are held in high esteem in Europe and around the world. If all Native American product listings from Montana were gathered and telecommunications was used to market them around the world, the value inherent in being Crow, or Blackfoot, or Shoshone would be reinforced. The Navajo already are using telecommunications to market their products in 40 countries.

Personal computer telecommunications allow a new type of community to exist, the virtual community. For obvious reasons, communities in the past have been defined by physical location. An "online" community may exist in very active and intimate fashion despite its members being physically located anywhere in the world. NativeNet is one such virtual community. The members from around the world actively participate in a community with the purpose of empowering the indigenous peoples of the world. Bulletins and messages have been received on Telegraph regarding the Brazilian Indians threatened by burning of their rain forests, of the Tibetans threatened by the militant Chinese, and the Chippewa spearfishers. Dozens of tribal groups from all over the world have begun to support each other's community information needs through telecommunications. Here again your challenge presents itself.

Creating a community to support a common interest can be as easy as posting a single public message requesting that those interested in a cause or topic please identify themselves and commit to communicating with others that share this interest to explore what can be done. Joining a community can be the simple matter of keeping up with the communications within that community and contributing what you can offer.

Minds worldwide can effectively use computer conferencing to function as a virtual community toward a common purpose. Individuals can easily be members of multiple communities. Such is the modern age where an individual can contribute to any community, from anywhere, for any purpose. This truth has the power to upset political corruption worldwide, and restore the power to the people.

Today the Montana educational community exists as many separate educational institutions with few interconnections. K-8, junior high, Senior High, community colleges, vocational schools, 4 year institutions, corporate training, professional health care training etc, etc. Personal computer communications could provide a shift from this cloistered institutional approach. Instead of the University of Montana, we could see emerge "Montana- the University" where teachers, students and all citizens from all levels of education can interact and share information across all boundries of discipline, age level, professional status and physical location. This K-100 integrated approach could call on senior citizens to assist elementary students. Expertise

could be shared with convenience across all levels of society. We would again become a community in the Information Age and transcend "industrial age" institutionalization.

State government agencies and private businesses need not remain so distant from education of the young, education should move out of the classroom and into the community, particularly in Montana where we risk our students moving away if they don't find a place to grow with within our communities.

Telegraph allows the real doers in each community to find each other and work together to benefit Montana as a whole. Telegraph serves as a filter to collect those who want to make a difference in their communities, and as a lens to amplify the ability of these folks to work with others like themselves to empower all concerned through sharing and trading of essential information.

Systems such as Big Sky Telegraph allow for the convenient formation of and participation in educational communities dedicated to even the most obscure educational topic or purpose. This technology holds the promise of a global renaissance of learning where each of us could contribute to the learning of others. If each of us could offer a class in our area of expertise, and could develop an online reputation as a resource person in that area, we might be able to supplement our incomes doing what we love.

The ultimate potential is a world where we each work and grow in our area of preference, and the line between work and hobbies, drudgery and pleasure blurrs. Could such an image of utopia emerge where the people care for the people, and knowledge is eagerly shared instead of our hoarding material goods? Could a world exist where those who share knowledge and contribute to the educational welfare of others would be materially rewarded based on their effectiveness?

Society in the 1800s centered on the ranch, farm or tribal camp as the center for education and family life. The industrial age caused many rural families to move to the city, children would go to the educational institution, parents would go to the work institution, institutions were created for health care, government, etc. Personal computer telecommunications offer the potential to return to the former family-based lifestyle where children can learn at home, parents can work productively from the home, and local communities can begin to become what they once were.

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ITEM 6.

Networking High Schools - Project ICONS
by Jonathan Wilkenfeld
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Project ICONS (International Communications and Negotiations Simulations) at the University of Maryland had been conducting both multi- university and multi-high school foreign policy/foreign language simulations for the past 8 years. We now have a group of almost 100 high schools and universities all over the world participating in our exercises.

Schools participating in these simulations each represent the foreign policy of a different real-world country,

and they interact with each other on the basis of issues which are raised in a scenario they all receive prior to the simulation. These issues include arms control, the environment, human rights, nuclear proliferation, the debt crisis, and various regional crises (southern Africa, Cambodia, the Middle East). The exercise usually lasts about four weeks.

The software for the simulation, POLNET II, runs on VAXs at the University of Maryland. Each of the participating schools (about 20 per exercise) must access these machines at Maryland in order to send and receive mail (bilateral negotiations), as well as engage in real time conferences (where 5 or 6 teams might be on simultaneously).

When the project began, we relied exclusively on Telenet, since that was really all that was out there (except for ARPANET). We are now making increasing use of NSFnet and Internet, which makes it a lot cheaper for a school to participate. For your information, I am transmitting a listing of the schools we currently serve, and their method of linking up with us. You will notice that in the case of all of the high schools on NSFnet, they have made contact via a local university. Sometimes this has been free, and sometimes they have had to pay a nominal fee.

We run several of these simulations each year, and I would be happy to furnish anyone with more information by regular US mail.

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PROJECT ICONS
University of Maryland College Park

Networks Used - 1989-1990

High Schools

NSFNet	Telenet
Bryan Station (KY) via U. of Kentucky	Gilbert (IO)
	North Haven (CT)
	Dowling (IO)
Athens (OH) via Ohio U.	Horace Greeley (NY)
	Provo (UT)
	Monsarrat (Argentina)
Walton (NY) via CUNY	Garneau (Ontario)
	Kennedy (CA)

	Nevada (IO)
Interlake (WA) via U. of Washington	Winterset (IO)
	Turlock (CA)
	Lincoln (IO)
Lebanon (NH) via Dartmouth	Urbandale (IO)
	Adel-DeSoto (IO)
	Jackson (Ontario)
Tower Hill (DE) via U. of DE	Fullerton (CA)
	Connelly (CA)
	Brentwood (CA)
Amith Regional (CT) via Yale	Cate (CA)
	Harvard (CA)
	San Marino (CA)
	Gahr (CA)
	Pioneer (CA)
	La Serna (CA)
	Governor's School (PA)
	Lincoln (WA)

Local Telephone or Network

Newport Prep (MD)
High Point (MD)
Northwestern (MD)
Northern (MD)
Summer Center for International Studies (MD)

PROJECT ICONS
University of Maryland College Park

Network Used - 1989-1990

Universities

NSFNet	Telenet
Univ. of Colorado	Copenhagen (Denmark)
Towson State	Fachhochschule Karlsruhe (FRG)
Michigan State	Waseda (Japan)
North Carolina State	Inha (Korea)
Sonoma State	Cordoba (Argentina)

US Air Force Academy	U. of Connecticut
	Brigham Young U.
	Whittier College
	Canisius College
	Ramapo College
	Colorado State-Durango
	Middlebury College
	U. of North Carolina
	Arkansas Tech

Local Telephone

Hood College
Univ. of Maryland

ITEM 7.

Announcements, Requests, Reviews

A. Announcement: Distance Education project in the Netherlands
from Han Bakker

This is my introduction to the Disted list. I'm project manager for CAI and distance education at the Hogeschool Utrecht, a polytechnic in the Netherlands. We have about 6000 students in science, technology and economics. From them are about 2500 part-time students.

Our concern with distance education emerges from the needs of these part- time students, who must study besides their daily work. When we can reduce their presence in the Institute from 3 to 2 evenings they will be very thankful.

We made the first step in that direction by offering courses with a great deal of computer assisted instruction. At the moment only within the limits of the institute, but we are planning to offer these courses also in a way the students can follow them at their leisure at home. With that in mind we are planning a lease project, where students can lease a computer complete with installed courseware. By way of telecommunication we can keep contact with the students for purpose of being informed about their progress and for their being helped by our teachers in case of difficulties with their study.

There are only a few other examples in the Netherlands of this way of communication and there's no polytechnic that plans to do it on the scale we are. From that fact emerges a need for international orientation that I do in this way through the Disted list. I also plan to pay a visit to

other countries (e.g. the US) and would be glad to be informed about projects with the same goals as ours.

Hogeschool Utrechtc
Han Bakker

P.O. Box 573
3500 AN Utrecht
The Netherlands#

B. Mini Book Review
by Greg Kearsley, PhD, BITNET ID: KEARSLEY@GWUVM

ONLINE EDUCATION -- Edited by Linda Harasim , Praeger, 1990

This is a book that will be of interest to many readers of this journal and distance education reseachers. It discusses the design and use of Computer Mediated Communication (CMC) systems in teaching with particular focus on the theoretical and methodological issues involved. One thing that I found especially interesting were the various attempts to measure the impact of CMC use on student learning.

Also very helpful is the last chapter which is a fairly complete bibliography on the subject. I think this book is excellent for people new to CMC who want to get a feel for past work and current concerns.

Editor's note: I have recently finished the book and highly recommend it. It does an excellent job of analyzing the more important aspects of CMC.

C. Book Announcement:

EUROPEAN ASSOCIATION OF DISTANCE TEACHING UNIVERSITIES MEDIA AND TECHNOLOGY IN EUROPEAN DISTANCE EDUCATION
(ed. A. W. Bates)

MEDIA AND TECHNOLOGY IN EUROPEAN DISTANCE EDUCATION, a publication of the European Association of Distance Teaching Universities, will be available for purchase from April, 1990.

There is a great deal of "hype" about media and technology in distance education -- but what is the reality? This 300 page book, with its 43 articles from 38 authors in nine European countries, representing almost all the major European distance teaching universities, provides a comprehensive overview of the use of media and technology in higher distance education in Western Europe. The book identifies who has experience of using various media and technology, the extent to which it is being used, and some of the problems and approaches that have been identified. Papers cover the following technologies:

- Electronic publishing
- Radio, audio-cassettes and telephone teaching
- Broadcast television and video-cassettes
- Satellites
- Computer-based learning and interactive video
- Electronic mail and computer conferencing
- Media in language teaching

The emphasis of the book is on practice rather than theory. While there are papers on costs, media selection and the practical problems of using technology on a European-wide basis, the great majority of papers discuss specific applications of technology in distance education.

The book highlights not only the potential of new technology for distance teaching, but also its limitations, and raises many key issues regarding the economics, pedagogy, politics and social implications of providing distance education on a European-wide basis.

The book is available by mail order only. For a copy, send L23.20 cheque or money order (-we regret that payment MUST be in L sterling-) per copy (includes post and packing) to:

> Janice Dale, IET
> The Open University
> Walton Hall
> Milton Keynes MK7 6AA
> United Kingdom

Orders can be faxed to +44-908-65-3744.

D. Excerpt From: UNIVERSITY OF THE AIR
by Mark Siegmund
BITNET ID: cdp!uofair@labrea.stanford.edu

University of the Air made its initial debut on Sunday, April 31, 1989, on Radio For Peace International (RFPI), a global shortwave station sited on the campus of the University For Peace (U.N.) in Costa Rica. Aired on RFPI, were ten courses of the Certificate Program in Peace and Development. The University of the Air (UA) semester, which ran from April through September, was received in more than 40 countries. All courses are contributed by volunteer faculty.

Current UA activities and program revolve around seeking addition- al radio outlets (shortwave, AM and FM), and the UA Correspondence Course in Peace and Development. Underway, are plans to establish a mini-AM/FM grassroots radio station (broadcast range 2-10 km) in Central America during 1990. This mini station will broadcast courses and programs produced both locally and internationally. Efforts will be made to fully engage the local community in sta- tion operation and production of broadcast materials, and develop- ment of special radio programs. Emphasis will be on, "Peace Though Development."

Currently available or in development, are the following courses:

> Holistic Education; Children Education and Peace; Peace and Development; How Nature Works; Global Interdependence; Grassroots Entrepreneurialism; Individual Initiative; Politics, Science and Spirit of Peace; World Core Curriculum; Humanities and Liberal Studies; Conflict Resolution; Shelter; Cultural Anthropology; Health and Nutrition; Alternative Energy; Ecology; Appropriate/Alternative Technology; Community Development; Global Education; Alternative/Appropriate Agriculture; Interiority; International Development and the Grassroots; Development Problems/Practices/Possibilities; Equity, Ethics and Law; Ecumenism; Marketing; Production; Communications; Languages; Literacy and Cross Cultural Encounters.

The above curriculum is designed to generally prepare the individual for community and global life. It provides a spectrum of education, ranging from the global to the local and practical. The tools to start and maintain a small business are given, as well as the community and global context in which that enterprise will exist. The student will learn how to conduct life and enterprise in harmony with the rest of humanity and the planet's ecology.

We invite your interest and participation. Please contact us for further information. Thank you.

Cordially,

Signed by
Mark Siegmund
Co-Director
University of The Air
P. O. Box 921867
Sylmar, CA 91392
Tel: 818-365-3262
Bitnet: cdp!uofair@labrea.stanford.edu

E. Request for input regarding the ethics of CMC use:

Dear Friend:

I am compiling research for a Distance Education project. Could you spend a few minutes telling me what you think about these issues. In this open-ended communication network, we implemented this medium to send and receive the information.

It is not simply personal communication. On the contrary, every single message can be delivered to anywhere for anyone. The individual has as much influence as journalist have. While we drive on this communication highway, do we consider the rules embedded on every sender and receiver? Like driving a car on the highway, the driver has to obey the traffic regulation to avoid the car collision and accidents. The electronic mail should have its regulations and ethics that everyone should follow.

1. Could you suggest which communication ethics which can also apply on any medium will effect people most?

    a. Verified information
    b. Report the facts without personal opinion
    c. An indicated information resource, if one has quoted the information.
    d. All of the journalist regulation should be covered

2. How do we teach kids to honestly respond without bias by way of electronic media? How do you help them to verify and select the right information? Is there any component that should be covered?

3. If you are coming from other countries, in your native point of view, what type of the bias from the western standard will affect you most?

I'd like to hear your opinions related to this issue of ethics. I am very concerned with the side effect of this technology. Like an old Chinese proverb says "Water can carry the boat, it also can overwhelm the boat".

James Chen
University of Oregon
School of Education
JANGCHUN@oregon.bitnet

F. Electronic participation at ICDE

From: TAKESHI UTSUMI
Chairman, GLOSAS/USA

<div align="center">

Outline How to Participate in
Demonstration of a "Global Lecture Hall"
for
Promotion of Global Understanding
at
The XVth World Conference
of
The International Council for Distance Education
November 4 to 10, 1990
Caracas, Venezuela

</div>

I. DATE: November 6 (Tuesday), 1990

II. TIME: 7:00 p.m. to 10:00 p.m. (Caracas time)

III. PARTICIPATION:

Please inform us of your choice among the following options.

    A. Passive Participants: Passive participants are those people who only watch and listen, and do not enjoy the privilege of asking questions to panelists--see below for

reasons.

1. Listening Only:

If you have a touch-tone telephone, and wish just to listen to our conversation, you may call into an audio teleconferencing bridge telephone number. Participation is limited to members of GLOSAS/USA who have paid their full membership fee (US$50 or more). We will provide you with the bridge telephone number to call. Phone cost to the bridge near New York City (tentative) has to be paid by participants.

2. Watching and Listening Only:

a. With Slow-Scan TV (SSTV) Unit: If you have Colorado Video's Model 250 or 290 slow-scan TV unit, you can connect it to a separate teleconferencing bridge, which will cost the same amount as audio teleconferencing.

b. With Satellite Downlink Facility: If you have a satellite downlink facility, you can receive our satellite signal, if our satellite foot-prints cover your area.

c. Eligibility of This Participants: Educational Professional members (or up) of GLOSAS/USA who have paid their full membership fee (US$100.00) will receive the bridge telephone numbers to call or technical specifications of the satellite(s) from which to receive our demonstration signal.

B. Active Participants: Active participants are those who watch, listen, and enjoy the privilege of asking questions to panelists--see below for reasons.

1. With Slow-Scan TV Unit:

If you have Colorado Video's Model 250 or 290 slow-scan TV unit, you can connect it to a slow-scan TV teleconferencing bridge, which will cost the same amount as audio teleconferencing. You can send your images to other participants.

2. With Satellite Downlink Facility:

If you have a satellite downlink facility, you can receive our satellite signal, if our satellite foot-prints cover your area.

3. With Satellite Uplink Facility:

If you have an uplink facility, we may ask you to send your full-color, full-motion video so that we can include it in our satellite broadcast. (This possibility is still pending.) (In this case, you do not need to have

the SSTV unit mentioned above.)

4. Use of EIES Computer Conferencing Network:

All active participants have to subscribe to the EIES computer conference system. We will use its on-line, real-time conversation feature for back-stage coordination to prioritize questions, since we cannot see who is raising a hand. For this reason, only participants who have this capability can raise questions during our demonstration.

Those participants who wish to ask questions to panelists will send their names and locations via EIES, to be retrieved at the NUTN studio and prioritized. (In this way we can save valuable telephone and satellite time.)

5. Contribution:

All active participants are urged to give us (GLOSAS/USA) a $300 contribution. The contribution will enable them to receive hard copy materials on our activities. It will also provide them with one month's use of EIES (including GTE/Telenet access) from October 15, 1990 to November 15, 1990 during which time they can practice using the on-line, real-time conversation command. (If they wish to continue with EIES subscription beyond November 15, they have to deposit with us another non-refundable $300, from which we will pay their subscription of EIES and Telenet use on their behalf. They will receive a monthly usage report from us.)

IV. NOTES:

1. First Come First Served: Because the time available during our demonstration is short, we limit the number of active participants. Consequently, first come first served.

2. Helping Hands to Third World Country People Who Crave Knowledge: Please note that the funding policy of GLOSAS/USA, a non-profit organiza- tion, is to ask for greater contributions from those who have the most resources at their disposal. That is another way in which the developed world can assist people of the third world countries. A college professor in Argentina earns only $100/month. Because of poverty and an inadequate telephone system, they cannot call our audio and slow-scan TV teleconferencing bridges. We have to help their communication costs. This is why we used the word "contribution" rather than "participation fee" above. Is there a possibility of your passing the hat among attendees of your gathering to help people from under-served countries?

3. Cancellation: In case you cancel your participation before our event, yourcontribu- tion will be kept for your individual membership in GLOSAS/USA as well as for our expenses for phone calls to participants in third world countries

during the event. In case we cancel this event (our Go/No-Go decision date is October 1, 1990), your contribution will be used for your individual membership fee and for our preparation of this event.

4. Your Complete Address: Should you decide to participate in our event, please send us your complete mailing address, including phone and facsimile numbers, and any electronic communication means. Please also inform us about the configuration of your facilities.

5. Further Detailed Information: We will send further detailed information and program of our event as our program develops, to those people who informed us of their intent to participate.

6. Overseas Participants: Overseas participants are urged to contact us at their earliest possible convenience due to the conference date.

Takeshi Utsumi, Ph.D.
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G. Distance Learning Database Formed
From: Don Watkins, V076GZHB@UBVMS

Regents College of the University of the State of New York has recently developed a database of distance learning opportunities for students of nearly all ages desiring undergraduate credit. Presently, DistanceLearn, contains over 700 courses offered by a couple of dozen institutions.

Ms. Katherine Gulliver, Director, Office of Learning Technologies, Regents College is looking for able high school students that will be interested in using this database.

For more information about DistanceLearn...contact

    Ms. Katherine Gulliver at "NYS001@ALBNYVMS"

Thanks Don Watkins

H. ANNOUNCEMENT: Access to Campus 2000
by Chris Wooff, QQ43@LIVERPOOL.AC.UK

Campus 2000 was formed in January 1989 with the integration of two existing services,

PRESTEL Education and The Times Network Systems (TTNS). Campus 2000 is operated by British Telecom to allow a wide range of educational users to take advantages of features of both PRESTEL Education and TTNS, at a guaranteed Local telephone call access charge.

Campus 2000 allows users within schools and colleges to link their own classroom microcomputers through the Public Telephone Network to the Campus 2000 computer. This has many benefits; in particular, it allows users to access and take advantage of a huge amount of constantly updated information in the database sections, while at the same time allowing communication with all the other users of the system both in the UK and overseas via the medium of Electronic Mail. Interactive access to TTNS and now Campus 2000 has been available from JANET for a number of years by making a call through the JANET PSS Gateways, using the Gateway mnemonics TTNS and CAMPUS2000. Unfortunately there is currently no route to allow Campus 2000 users access to JANET although British Telecom and the Joint Network Team are investigating this problem and it is hoped to provide a solution in the near future.

Electronic mail between JANET users and Campus 2000 is a problem, due to the restrictions of the standard Telecom Gold Electronic mail. Limited testing of the link between JANET and Campus 2000 has been carried out successfully between the few users incorporated into the trials. Further testing is required before this facility can be announced as a supported service. It should be emphasised that mail interchange between Campus and JANET may incur charges when the service is launched.

Further details about access to Campus 2000 will be announced as they become available.

Chris Wooff

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UUCP: ....!mcvax!ukc!liverpool.ac.uk!qq43

ITEM 8.

Distance EDitorial - On the Nature of InterLational Communication.

No, "interlational" is not a misspelling of "international". It means communicating across social distances. And although it is not a phenomenon particular to CMC (computer-mediated communication), CMC seems to facilitate it quite well.

The first step in seeing interlational communication was abandoning a purely quantitative approach to studying CMC in favor of what amounts to electronic anthropology: the culturological assessment of online communities and behaviors. With this methodology guiding me, I suddenly began to see some very interesting things online, one of which was that CMC

bridged not just geographic distance, but social distance: interlational communication. People stepped out of roles, "talking" with people they ordinarily would never talk to, talking about things they would never talk about in a face-to-face mode or on the phone, although the modes of communication are geographically and financially possible.

In one example, our local representative in state government asked to be connected via electronic mail to a fifth grade class which was less than a 5 minute walk away. What resulted was a very real, on-going communication about issues of the day that affected the fifth graders, something which no one really expected. The medium allowed both to step out of their roles as "adult" and "children", or "politician" and "non-voter" to enter very real dialogue on a much more equal footing. The distance they crossed was social more than anything else.

An exciting possibility of interlational communication is using CMC as a conflict resolution medium. Some might argue, and rightly so, that this constitutes interpersonal, rather than interlational communication. The fact is that the two overlap and, like many terms in the social sciences, are only useful in so far as they guide us as we try to understand the human behaviors we observe. That said, the interlational component is quite apparent in conflict resolution. Any difference which is not personal and concrete in nature (such as "I don't like him because s/he abused my trust in this situation") and tends more towards being characterized in terms of roles (such as "I don't like him because s/he is the enemy") is more interlational than interpersonal in nature. I am talking now with divorce lawyers and counselors about using CMC for conflict resolution, some of whom are genuinely interested.

Much of my current research amounts to studying those beliefs and social realities that separate us as people and cultures, and how CMC can play a role in overcoming separation where desirable. A taxonomy that helps me at present is this:

Name Of Separation	Type Of Separation	Nature Of Separation
International	geographic	space segregation
Intercultural	inter-social	custom, community expectations
Interlational	intra-social	roles, social strata
Interpersonal	emotional	personality, needs
Intrapersonal	psychic	identity resolution

Indeed, there is overlap in all of them, and a particular situation can involve a number of separations. But I find this taxonomy useful to guide us as electronic anthropologists as we seek to understand the nature of online community.

Your comments are always welcome.

ITEM 9.

ABOUT THE JOURNAL
from the editor.

WHAT IS THE ONLINE JOURNAL OF DISTANCE EDUCATION AND COMMUNICATION ?

[What follows is an excerpt from the first issue of the Journal.]

This first issue will be primarily concerned with the Journal itself. Once we provide an idea of the Journal's identity and direction, we hope you will contribute to this rapidly growing field of education and communication.

THE MEDIUM
We want short contributions, 4 screens maximum. Rather than trying to compete with a paper-based magazine which does a much better job of presenting long articles, we want contributions that present overview information. Based upon information gleaned in contributions, readers can directly contact the author for more details.

THE MESSAGE
The issues that the Journal is concerned with fall into four basic content areas:

1. Content Area #1- Distance Education

    The Journal is interested in distance education as the organized method of reaching geographically disadvantaged learners, whether K-12, post secondary, or general enrichment students. Areas of interest include:

    - delivery technologies,
    - pedagogy,
    - cross cultural issues implicit in wide area education delivery,
    - distance education projects that you are involved with,
    - announcements, workshops, or programs of study,
    - anything else regarding the theory and practice of distance education.

2. Content Area #2- Distance Communications

    The Journal recognizes that education encompasses a broad area of experience and that distance education includes distance communications that fall outside the domain of formal learning. The Journal welcomes contributions that deal with serving people at a distance who aren't necessarily associated with a learning institution. The Journal welcomes information about, for examples:

    - public radio and television efforts to promote cultural awareness,
    - governmental efforts to inform a distant public about social issues,
    - or the many training programs run by private business to upgrade employee skills.

3. Content Area #3- Telecommunications in Education

    Once the distance education infrastructure is solidly in place, local learners will want to tap into it, because they simply prefer learning in a decentralized setting or because they want to expand their learning opportunities and resources beyond those immediately

available to them. This phenomenon, which we call 'bringing distance education home,' will grow in the coming years and we look forward to hearing from people about telecommunications in education, as a tool or a content area.

4. Content Area #4- Cross Cultural Communication Efforts
   Particularly Between the US and the USSR

   The Journal is interested in projects concerned with overcoming cultural barriers through the use of electronic communication. The Journal particularly looks forward to contributions concerning:

   - efforts to improve electronic communication between the USSR and the US
   - international electronic conferences
   - cultural domination through the inappropriate use of media
   - the use of telecommunications to promote understanding of the human condition

To subscribe to The Online Journal of Distance Education and Communication, send the following command to LISTSERV@UWAVM :

SUB DISTED your_full_name

All contributions should be sent to JADIST@ALASKA

Any other questions about DISTED can be sent to:

Jason B. Ohler, Editor
JFJBO@ALASKA
or
Paul J. Coffin
JSPJC@ALASKA

Disclaimer: The above were the opinions of the individual contributors and in no way reflect the views of the University of Alaska.

End of the Online Journal of Distance Education & Communication