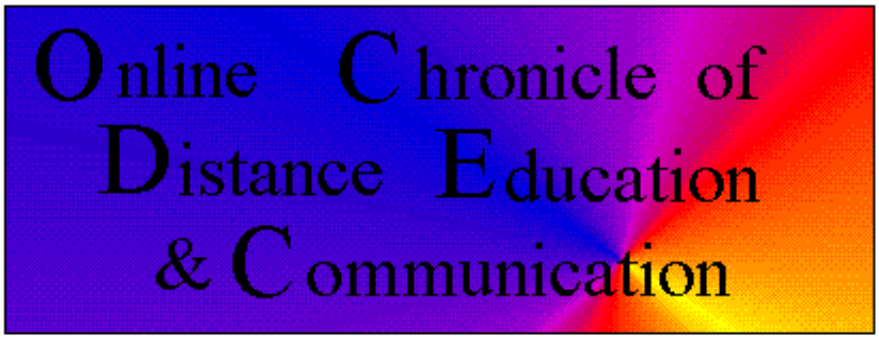


Volume #2, Issue #4

Date: May 1989

Editor:
Jason Ohler, Director
Educational Technology Program
University of Alaska Southeast

**ONLINE JOURNAL OF DISTANCE EDUCATION AND COMMUNICATION**

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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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Volume #2, Issue #4

Date: May 1989

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## WELCOME TO THE ONLINE JOURNAL OF DISTANCE EDUCATION AND COMMUNICATION

A number of technical problems conspired to delay distribution of this issue of the Journal. Our apologies.

The next issue will appear within a month.

WE ARE ALWAYS INTERESTED IN CONSIDERING YOUR CONTRIBUTIONS.

Bear in mind that the electronic journal suffers from "uncompromising sequentiality"- readers can not skip past articles that don't interest them the way they can in a paper-based journal. Until our technology allows "browsing," our only alternative is to make articles brief and to provide the authors' IDs so they can be contacted directly by readers for more detailed information. This approach cuts down on the network resources needed to distribute the Online Journal and allows for greater reader interactivity, while reducing the amount of unwanted information readers are forced to scroll through.

True, readers can always download the Online Journal and print it out. But I want to make the Journal as electronically complete and accessible as possible, and perhaps spare a few trees in the process.

Therefore, please limit articles to 4 screens (2 pages) maximum if it's possible. If you can, also please indent one tab space on the left and keep the right margin at 70. I look forward to hearing from you.

This issue at a glance:



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## THIS ISSUES CONTRIBUTIONS

**ITEM #1**

### INTERNATIONAL RESEARCH IN DISTANCE EDUCATION: PROBLEMS & PROSPECTS

By M.S. McIsaac
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ABSTRACT

This presentation examines the growing interest in international research on distance learning and discusses the difficulties encountered both in locating existing research studies and in conducting original research. Two projects directed toward locating research studies are described. The first is the documentation resource database at the United Nations University International Centre for Distance Learning. The second is a research study which explores one method for quantitatively synthesizing existing research in this field.

The second part of the paper explores difficulties encountered in conducting original research internationally. Problems and priorities are discussed from the point of view of the economic, political and social climate for research. Recommendations are made to first synthesize existing research and then to conduct programmatic study in those areas which appear to be of greatest interest to distance educators; cost effectiveness, student motivation and learning, and persistence of study.

## INTRODUCTION

Interest in the field of distance learning is accelerating rapidly with the development of new communication technologies. In many cases educators are faced with problems as they search for solutions to meet their particular needs. Often studies are conducted quickly at the request of administrators or politicians to determine needs assessment or provide cost benefit analyses. Both locating existing research and conducting original research in this rapidly developing field can present problems.

There is a lack of information about international distance learning research, particularly in developing countries. Although there are a number of studies which are done in Eastern Europe, Asia, Africa and South America, many are not reported in international journals. Often these studies are done at the request of the government or of an international funding agency. In many cases problems are encountered in data collection and analysis. Then, although a significant amount of resources often go into these projects, results which could benefit countries with similar problems are not generally available to the international community.

Large scale research in distance learning has been conducted primarily by countries in Europe, North America and Australia. Research needs have been defined and research agendas have been undertaken by countries such as Canada (ref.1). Since 1980, many developing countries have begun their own distance learning programs to educate people in rural areas and to raise the literacy rate. Using Western distance learning institutions as models, countries such as India, Indonesia, Tanzania (ref.2) and Turkey (ref.3) have instituted massive programs, often in a very short amount of time. In many of these situations, model distance learning universities such as the British Open University or the German Fernuniversitat have provided guidelines. However, the political and economic situations of developing countries are often so dissimilar as to prohibit mass importation of such programs. In many instances, original research must be done to determine the most cost effective solution for a country's unique educational problems.

## LOCATING RESEARCH

The first problem encountered is locating existing research. Although there are a number of

journals such as Distance Education, (Australia), The American Journal of Distance Education (USA), Journal of Distance Education (Canada) and ICDE Bulletin (UK) which report research , many describe programs rather than report empirical studies. In some cases research is conducted using government or agency funds and the results become proprietary and are not reported in journals for general circulation. In other cases studies are of the one-shot variety and lack the rigor needed to be generalizable. The descriptive reports are of interest to people in similar situations who need models as guidelines. However, the time is right to begin to use descriptive reports to formulate testable hypotheses. In fact, we are now beginning to see the emergence of serious research questions in the areas of organizational policy, learner characteristics, curricular issues, and underlying theory (ref. 4).

Two solutions are suggested for locating and consolidating available research in this area. First, increased support should be given to the primary documentation and retrieval center for literature on distance learning; the Open University International Documentation Centre located at the Open University in the UK. This centre, under the direction of Keith Harry, collects materials and produces regular accession lists of publications received (ref.5). Increased cooperation from the community of distance learning scholars conducting research around the world could help to make research studies more accessible.

Second, a synthesis of research being done worldwide in distance learning should be given high priority. One such study is being conducted at Arizona State University to quantitatively synthesize current research using a meta-analytic method. In this initial study three major distance education journals, Distance Education, The American Journal of Distance Education and ICDE Bulletin were searched. In addition the literature in Dissertations Abstracts, Eric Documents, and recent documents from the International Documentation Centre were analyzed in order to define categories which are currently of importance to researchers internationally in distance learning.

The categories of note which emerged were cost effectiveness, student motivation and learning, and persistence of study. Approximately 20 studies which provided the necessary statistical information to compute effect sizes were selected for the meta-analysis (ref.6).

This pilot study marks simply the beginning. Further work is needed to locate, replicate and systematically conduct research on those topics useful to distance educators throughout the world.

## ORIGINAL RESEARCH

In order to advance the applicability of research to practice, international distance educators must be able to not only locate studies done by others, but conduct original research to answer their own particular needs. Both priorities established and problems encountered in conducting original research can be considered from three perspectives. Research projects must take these priorities into consideration if problems are to be avoided.

Priorities for conducting research

1. Economic--The most important consideration for the majority of developing countries is economic independence. It is in many of these countries that the largest distance learning

projects are taking place. A top research priority is to improve the cost effectiveness of education and to provide training and jobs for the general population.

2. Political--The goal of education, particularly in developing countries, is to support the political organization of the country and to develop good citizens. Research projects which endorse this priority will have greater success.

3. 3. Social--Some governments seek to promote the cultural and social status quo to be reflected in their educational programs. For many there is also the desire to provide equality of educational opportunities for all. Researchers and distance learning administrators must analyze the social climate of the country and incorporate those priorities into any program for it to be successful.

Problems in conducting research

1. Economic--There is often a perceived lack of financial resources for conducting research, particularly prior to embarking on a massive distance education plan. In many cases investing money in research is seen as unnecessary and a drain from areas in which the money is needed. An existing plan from another country is often used and revised where needed.

2. Political--There is an observable trend toward self- determination both in setting up distance learning programs and in conducting research. Although outside experts from the Western world are consulted, developing nations prefer to train their own experts and conduct their own research. There is a preference for locally initiated and conducted research as can be seen by examining bibliographies and references.

3. Social--Although local expertise is preferred, there is frequently the problem of locating qualified researchers. In many cases professionals in developing countries have been educated abroad, but once they return home they have little opportunity for using and later updating their skills. In situations where consultants are used, care must be taken to consider social and cultural constraints in initiating and reporting research.

## CONCLUSIONS

Research in distance education is still in its youth. Reports from the first American Symposium on Research in Distance Education in 1988 indicate that questions are still being formulated as to what types of research need to be done.

Numerous studies have been conducted regarding organization and administration, and course content. Some of these studies are descriptive and non- generalizable. However, we are beginning to see increasing concern with cognitive aspects of distance learning, and longitudinal studies which examine long term effects.

In his review of research in distance education, Holmberg (ref.7) states that a research discipline has, indeed, emerged in this field. Many of our colleagues from developing countries are involved on a large scale with developing distance learning programs. By paying attention to the problems and priorities inherent in conducting international research we may begin to join forces to develop consistent methods for evaluating results which will benefit the entire field of distance education.

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**ITEM #2**

## DISTANCE EDUCATION IN TURKEY- AN OVERVIEW

by Gurbuz Yangin
Anadolu University, Turkey
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[Editor's Note: When Prof. Yangin subscribed to the Online Journal I realized I knew nothing about distance education in Turkey and asked him for a brief description. His report follows.]

### Introduction

The first distance education students were enrolled in Turkey in 1968 at what was then called the Distance Education Centre. Organizational problems caused it to close down in 1979. From 1979 to 1982 distance education stopped in Turkey.

Distance education began again in 1982 with the creation of the Open Education Faculty, founded in Anadolu University, Esk`seh`r. The Open Education Dept. of the Open Education Faculty offers two programs, business management and economics. Both programs last four years, consist of 36 courses, and award a

license diploma at their completion.

**Registration**

Open Education Faculty students can register at 18 different offices of the Open Education faculty in different parts of Turkey, with one in the Turkish Republic of Northern Cyprus. By 1989, 183,000 students were enrolled in the Open Education program, 66,000 of whom registered in the past year. To date 16,497 students have graduated.

**Media**

- Printed materials: Books are published by Anadolu University and sent to the students by mail.
- Radio and TV Programs:the Open Education Faculty has three TV studios and two radio studios. TV programs are produced in color and mastered on to one inch tape. Master programs are sent to Ankara where they are broadcast from TRT(Turkey Radio-Television Association). Reception antennas are common and thus the signal can be picked up throughout the country. It is technically possible to broadcast tv and radio programs from Anadolu University, Esk`seh`r. But the Turkish government has the broadcast monopoly, and TRT uses the monopoly in the name of the government.Every year approximately 850 tv programs and 90 radio programs are being broadcast.
- Face to Face Sessions:16 of the required courses involve face to face sessions.

**Examinations**

Students have one examination at the end of the year which they take at the "face to face session centers." Failing students take additional examinations.

**Finances**

The Open Education Faculty is financed by the Turkish government; students pay only for their books.

**New Programs**

A teacher certification program run cooperatively between the Ministry of Education and Anadolu University awarded certificates to 130,000 primary school teachers from 1985-1988.

During the summer months of 1988, 212 educational programs were produced and broadcast to high school students. Seventy-eight course programs for the third class students of high school students have been produced since the beginning of the year.

At the end of April, the Open Education Faculty in cooperation with the Ministry of Tourism, will begin a new project to train people working in the tourism industry.

**West European Project**

Through Anadolu University's office in Cologne, West Germany, the Open Faculty delivers programs in primary school certification, business management and economics for high school graduates. Registered students are living in West Germany, Switzerland, Belgium,Netherlands and France. Students take exams in

their native country.

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**ITEM #3**

**First East-West Online Information Meeting to be Held in Moscow**
From: Patt Haring

[Found at the 10th National Online Meeting in New York City.]

1st East-West
Online Information Meeting
11 - 13 October 1989
Moscow, USSR

Preliminary Announcement
Invitation to Exhibit

Organized by: Learned Information Ltd.

and

International Centre for Scientific
& Technical Information (ICSTI)

**Why an East-West Online Information Meeting?**

Learned Information Ltd. and the International Centre for Scientific Information (ICSTI) announce the 1st East-West Online Information Meeting which will take place at ICSTI premises in Moscow on 11-13 October 1989.

This unique Conference and Exhibition is made possible by the relaxation of rules and regulations which the open climate of Glasnnost and Perestroika has brought. The objective is to enable East-West information professionals to establish new business relationships and ventures and to create a forum for mutual cooperation in information activities of all kinds.

The Conference will be accompanied by an Exhibition of information systems, technologies and services - including online and optical products. Exhibitors from the West will have the opportunity to describe their products and services in depth to Soviet and other East European/CMEA information managers and decision makers faced with the challenge of becoming self-supporting in the era of unprecedented freedom of enterprise. Western Exhibitors will, in turn, benefit from this unique opportunity to learn about East European information systems and services.

**Objectives of the Conference**

The main aim of the Conference is the promotion of broad scientific, technical and business information contacts between organizations and companies in the participating countries from the East and the West. This covers the exchange of information between East and West conference participants and the discussion of mutually beneficial cooperation in information services and products.

It is expected that this innovative Conference will result in the establishment of new East-West business relationships and ventures within the international information community, embracing commercially-available databases, new information technology, and information services and systems.

The 1st East-West Online Information meeting is intended primarily as a "getting to know you" working Conference rather than as a scholarly, theoretical information science Conference.

The emphasis will be on the Exhibition:

> Exhibitors will be offered the opportunity to present their products, services and systems in depth. Each Exhibitor will have approximately 30 minutes to describe their products. These product-orientated papers will be supplemented by a small number of carefully-selected presentations discussing such topics as national policies, government roles in information; information industry trends; and information markets for online and optical information products.

It is expected that there will be 150-300 decision-makers from approximately 100 organizations in the Soviet Union and other CMEA countries, with a further 300-500 delegates from the Moscow region. In addition some 1000 people will visit the Exhibition.

**Doing Business in the Soviet Union**

A special session on doing business in the USSR will review the history and geography of the Soviet Union; information policies and information resources; what is and what is not possible under perestroika and glasnost; the lifting of restrictions for conducting business and establishing joint ventures; and the new rules and regulations for foreign exchange, foreign company ownership and the like. Exhibitors with specific questions about doing business in the USSR are invited to submit these as early as possible to Learned Information so that they may be taken into account by ICSTI when preparing the session.

**Deal Making Session**

As well as the opportunity to arrange and negotiate joint ventures and business deals during the conference and exhibition itself, there will also be a special Deal-Making session to encourage further interaction with colleagues from the Soviet Union and other CMEA countries.

**Practicalities**

Since conference and hotel accomodation in Moscow is both controlled and limited there is a limit of about 40 Western Exhibitor stands and 200 Western participants (including Exhibitor staff). Learned Information, through ICSTI, will arrange hotel bookings, though particpants are responsible for their own travel arrangements.

Participants are also responsible for applying for a visa to visit the Soviet Union for the purpose of attending

the Conference and ICSTI will ensure that visa applications will be processed smoothly by the various Russian embassies.

While Exhibitors must obtain whatever local papers are necessary for the export and re-import of equipment necessary for demonstration purposes at the Conference, ICSTI, via Learned Information, will give whatever assistance is required.

**About the Organizers**

Learned Information is the sponsor and organizer of the highly respected International Online Information Meetings held in London each December and the National Online Meetings held in New York each May, as well as the Optical Information Meetings and the Expert Systems Conferences. Learned Information also publishes a wide range of journals including The Electronic Library; Online Review; Electronic and Optical Publishing Review; Information Today; Information World Review; Expert Systems - The International Journal of Knowledge Engineering; and The International Journal of Neural Networks.

ICSTI is an inter-governmental organization devoted to the provision of many different scientific and technical information services to organizations in Council for Mutual Economic Aid (CMEA) countries and also carries out R & D in information technology. In addition, ICSTI is the publisher of a number of scientific journals such as Problems of Information Systems; Engineering and Automation; Science and Technical Progress in Mechanical Engineering; Computer Optics; and Computer Technique, Systems, Management.

If you are interested in Exhibiting and/or presenting a paper please complete this form and return to Jean Mulligan, Learned Information as soon as possible and by 19 May 1989 at the latest.

Please also submit, at the same time, an abstract of your Product Review and/or paper. The extended (2-5 pages) Product Review and/or full paper will be required by 31 July 1989, together with a brief biography and details of your company and products, services or systems for the Conference Programme and Deal-Making session brochure.

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_____ I am interested in Exhibiting and presenting an extended Product Review (title, synopsis attached). Please send further details.

_____ I wish to offer a full paper (title, synopsis attached).

_____ I would be interested in attending the Conference. Please send further details when available.

N.B. Important: I would consider bringing _____ (give number) members of my family with me to Moscow.

_____ Please send further details of Online Information '89 to be held in London 12-14 December 1989.

My address is as follows: (BLOCK letters please)

Prof/Dr/Mr/Ms (delete as appropriate)

Given Name_____Surname_____
Organization

_____
Department
_____
Postal Address
_____
_____
Post
Code_____Country_____
Tel:
_____
Fax:
_____

Please attach a synopsis of approximately 300 words.

Return to:

The Conference Department
Learned Information Ltd.
Woodside, Hinksey Hill
Oxford OX1 5AU, England

Tel: (0865) 730275
Telex: 837704
Fax: (0865) 736354

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**ITEM #4**

## CONNECTED EDUCATION: PROGRESS REPORT FROM THE FRONT LINES OF HIGHER LEARNING

by Paul Levinson
ID= Levin@dde1PL.DAS.net@stanford



Until very recently, quality higher education was thought to require in-person physical meetings (classes or seminars) and reading of information presented in books.

Although much excellent education continues to take place under these conditions, the prevalence of "place-based, book-paced" learning has also hampered the growth of knowledge in many ways. The vast majority of people cannot physically attend a seminar at a given place; some of those who are in attendance (including the teacher) may not be in the mood for learning at the time of the meeting; even paperback books are cumbersome to carry and expensive, and the reading of a book in a library precludes others from reading the book while it is being read. These and related limitations of the traditional educational setting show that it is not necessarily the best educational setting.

Since the Fall of 1985, Connected Education(r) has offered more than 100 courses entirely via computer teleconferencing for graduate and undergraduate credit in conjunction with the MA in Studies Program at The New School for Social Research, and for several programs at Polytechnic University in New York City. The heart of these courses is "interactive asynchronicity" -- made possible via computer conferencing on the Electronic Information Exchange System (EIES) at the New Jersey Institute of Technology.

In a typical course offered via computer conferencing, the faculty begins by word processing and telecommunicating (through modem and telephone wires) introductory comments and a course outline to the central computer system (what we call our "Electronic Campus"). Students registered for this course then access and read these comments, also via their personal computers and modems. They can do this any time night or day, from any place in the world with a telephone connection. (Packet-switching technology allows participants to access the central system with just a phone call to a local node in most parts of the world.) They need not access the system at the same time, and indeed are encouraged to participate at times most convenient to them. They are expected to comment upon the "online" texts, raise questions, complete assignments, and in general further discussion.

John is the first student to access the course; he reads the material and enters a comment at 7:50 PM EST; he lives in Boston. Mary signs on at 9:00 PM EST from San Francisco and reads both the faculty's and John's comments. James signs on from London at 2:00 AM EST, reads the faculty's and John's comments, and enters his comment at 3:00 AM EST. A few minutes later Mary, who is burning the midnight oil in California, signs back on and enters two comments of her own. Early the next morning the faculty member (from Columbus, Ohio) and Toshi (from Tokyo) sign on, read the new waiting comments (the central system keeps track of all the comments individuals have read), and logoff to compose their thoughts. Soon the faculty member is back on with a comment that summarizes and weaves themes in the discussion thus far. The asynchronous cross-temporal-spatial learning ballet is underway.

Some 400 people from 26 states across the U.S. and as far afield as Japan, Singapore, Senegal (Africa), the Middle East, the Netherlands, France, Norway, England, Panama, Colombia, and Canada have taken Connect Ed(r) courses taught by faculty all across the world in this manner.

Most of our students are busy professionals whose responsibilities would otherwise not allow them to be graduate level students. Some of our students live in remote areas -- far from scholarly centers that provide the type of education we offer online. One of our students has been deaf since birth; another, blind, uses voice synthesizers to take part in our courses. Connect Ed and online education remove or diminish handicaps of distance, economic necessity, and physical impairment alike. (See Levinson, 1988a, for a detailed description of technology and demographics of the Connect Ed programs; Levinson, 1986, for discussion of Connect Ed and the international community; Levinson, 1988b, for discussion of computer conferencing in the broad context of technology and the growth of knowledge; and Levinson, 1989 for comparison of computer conferencing with other educational technologies. Brawer, 1989, offers a survey and comparison of Connect Ed and other online programs. Only Connect Ed permits students to earn a complete Masters degree exclusively via online work.)

Connect Ed students can pursue an MA in Technology and Society -- granted by the New School for Social Research -- entirely online. (The New School was founded in 1919, and is fully accredited by the Middle States Association and chartered by the New York State Board of Regents.)

The MA requires completion of 39 credits or 13 three-credit courses, plus an original thesis. Each of our courses is two months in length; we begin new terms five times a year (February, April, June, October, and

December). Masters degree students must take courses in three areas: Theory/Philosophy (e.g., "Ethics in the Technological World," "Artificial Intelligence and Real Life," "Philosophy and Technology," "Technology and Religion"), Survey/History (e.g., "Telecommunication Applications," "Computers and the Democratic Process," "International Issues in Telecommunications"), and Skills ("Desktop Publishing," "Electronic Publishing," "OnLine Journalism," "Technological Forecasting"). Everyone is required to take "Computer Conferencing in Business and Education."

Our courses can also be taken for undergraduate credit, or not-for-credit. (New School tuition in the Spring 1989 term was $948 per three-credit course graduate credit, $888 per three-credit course undergraduate or no credit.)

Connect Ed also offers special non-credit workshops -- such as an OnLine Writers' Workshop and a workshop in English as a Second Language. These are offered independently of the New School, and generally cost several hundred dollars per month. Tuition for New School credit courses and Connect Ed workshops covers all telecommunication charges, with the exception of the local call to the computer network node. Students are expected to use their own personal computers and modems.

Students who do not wish to pursue a New School degree may apply our credits to other institutions (subject to the receiving institution's acceptance). Connect Ed - New School credits have been accepted by such schools as New York University, Rensselaer Polytechnic Institute, Fairleigh Dickinson University, Bank Street College, St. Francis College, Polytechnic University of New York, and others.

In May 1988, Gail Thomas, a businesswoman in Long Beach, California, came to march in the New School for Social Research graduation procession. The trip was voluntary and the march was symbolic: Ms. Thomas had completed all work for the MA degree entirely online. (See Thomas, 1988, for her own description of the Connect Ed program.)

Students speak very highly of their online experiences. Brian Smith, who used Connect Ed courses to complete his MA in Media Studies at the New School, says "I'd have taken all my classes that way [online] if I could have" (Martin, 1987; Smith, 1987).

External reporters and evaluators are impressed. Jennifer Brawer, Education Editor at A+ Magazine, took a look at my online "Ethics in the Technological World." "What I found," she says, "was an honest-to-goodness college-level course that resembled courses I took in graduate school at Stanford University" (Brawer, 1989).

When students are not participating in their courses, they have lots of other avenues for stimulation on our Electronic Campus. Our Connect Ed Cafe has offered continuous discussion since 1985 -- on any and all issues ranging from the quality of fast food in New Jersey to the Armenian earthquake and glasnost in the Soviet Union.

Our electronic book ordering service makes purchase of required textbooks, books written by faculty and other members of the Connect Ed community, and a variety of out of print scholarly books as easy as pressing a key on the computer.

Our Connected Education Library contains hundreds of papers that focus on the impact of computer conferencing, electronic text and publishing, and related topics -- the only collection of this sort in existence. Unlike the traditional closed at midnight Library, Connect Ed's online library is open all the time; and any number of people can read the same paper at the same time.

Connect Ed also offers gateways to other collections of online papers, and to the NYU-New School-Cooper Union electronic card catalog (the "Bobcat" system, with nearly 3/4 of a million titles).

Most importantly, students find real human contact online of electronic messages, obtain business and professional contacts, comfort each other at times of illness and bereavement, even fall in love. In short, the online environment, in which people can communicate freely without some of the anxieties of in-person communication, is a fertile place for the development of a wide variety of very human relationships.

As we look to the future, we see expansion of our course and program offerings into such areas as an MBA and a Ph.D. in Technology Studies. The scholarly and educational worlds have too long locked out, by intention or not, many minds who would like to take part in what Comenius called the Great Debate. The pressing problems of the world, not to mention the inherent unfairness of limiting educational possibilities, mean we can no longer afford such restrictions. Connect Ed will continue doing its small part to open the realms of education.

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For further information about Connected Education -- including listings of our courses, access to our online

library by researchers, etc. -- please write to

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Bronx, NY 10463

Or contact us electronically on Compuserve (72517,3107) The Sourdas.net

Connected Education, Inc. is a not-for-profit corporation that offers graduate and undergraduate level courses in conjunction with The New School for Social Research and Polytechnic University. We also provide consulting about computer conferencing to professional, business, government, and religious groups, and engage in electronic publishing.

The Author: Paul Levinson, Ph.D., is Founder and President of Connected Education, Inc., and Director of the New School On-Line Program.
He is also a tenured Associate Professor of Communications and Fairleigh Dickinson University,
a Senior Faculty New School's Graduate Program in Media Studies, and Research Associate at the Center for Philosophy and Technology Studies at Polytechnic University.
He is on the "electronic faculty" of the Western Behavioral Sciences Institute and the International School of Information Management.
His publications include _Mind at Large: Knowing in the Technological Age_ (JAI Press, 1988), _In Pursuit of Truth: Essays on the Philosophy of Karl Popper_ (editor) (Humanities Press, 1982), and more than 50 articles on philosophy of technology and related areas.

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**ITEM #5**

**READER REQUESTS**
Other Notes

**LOOKING FOR ARTICLES:** The American Journal of Distance Education is interested to receive articles derived from the NORTHEAST DISTANCE LEARNING CONFERENCE (held April 13 & 14 in Springfield, Massachusetts) for review and consideration for publication.

Please contact:
Chris Clarke, Editorial Assistant
BITNET ID= NOG@PSUVM.

**LOOKING FOR A GERMAN-US CONNECTION:** I would like to link an American high school German class electronically to a high school (Gymnasium) class in West Germany or another German-speaking country. I am fascinated by the possibility of linking the classes through BITNET, especially with the use of Relay.

If anyone teaches a class in a German-speaking country, or knows of someone who does, please contact me!

L. Daniel York

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**FYI- Paul Coffin from the Online Journal staff reports the following countries now have Online Journal subscribers:** Canada, Belgium, Spain, Denmark, Netherlands, Finland, Sweden, Norway, France, Israel, Ireland, Japan, West Germany, Italy, Turkey, Singapore, Taiwan, Greece, Great Britain, Australia, US, Brazil.

The only BITNET member countries not being represented right now are: Switzerland, Iceland, Mexico, Portugal, Argentina, Yugoslavia,Ivory Coast, Luxembourg, Korea, Chile, Egypt, and Saudi Arabia.

**Send your notes of encouragement** to the citizens cleaning up the Alaska Oil spill to THANKS@ALASKA. They truly appreciate it.

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**ITEM #6**

**Guest DISTANCE EDitorial**
by Alaskan Distance Educator, Greg Moore
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**GRAPHICS STANDARDS, CONNECTIVITY, AND DISTANCE EDUCATION**

Experience is the essence of knowing. If we want to know about a complex system of things, we create models of the system and probe and explore it, all the time gaining knowledge through experience. Sometimes we create layer upon layer of abstraction, trying to gain insight by decomposing a thing, then reassembling it. The computer has been a tool of modeling and simulation, and a tremendous tool for abstraction. The computer has extended our capability for knowing.

The best of our tools often have unexpected uses. Neither John Von Neum ann nor Alan Turing anticipated the communications power of the computer. Yet, even at the most basic level of programming, the computer is a tool of communication. As Harold Abelson and Gerald Jay Sussman of MIT put it:

> "A programming language is a medium for communicating methods, not just a means for getting a computer to perform operations. Programs are written for people to read as much as they are written for machines to execute." *

Just as a computer is layered, from deepest machine code to the word processor I am using now, computers support communications from the deep problem-solving layer of programs to the international networks like BITNET. The computer has proved to be a communications tool of surprising power.

Our achievements so far in computer-supported communications have been mainly by exchanging the written word. Nearly any computer can receive and send ASCII (American Standard Code for Information Interchange) text. We have agreed upon a standard for exchanging text information, and have realized the benefits in extending our ability to communicate world-wide. We have achieved "connectivity" for the exchange of text.

Imagine what might be possible with a graphics standard. A group of students and their teacher, widely separated, are participating in an ongoing computer-based conference in ecology, and just starting to develop

the notion of a "sere", a transition stage from one habitat type to another. From the conference, students obtain a base image of a sere, as an example. They are asked to obtain their own examples in their own home regions. The teacher receives the students' images, and the conference proceeds to note the similarities and differences of different regional examples. The teacher is able to enhance some images to emphasize particular types and groupings of plants. The teacher is able to distill a general principle from many examples. The students are able to learn by experience, and even extend their experience to locations far away. It was not necessary for all of the students and the teacher to have identical computing machinery. The students were using whatever equipment was available. The conference was able to use existing data networks over, essentially, standard telephone circuits, without the need for expensive 2-way television transmission.

Consider the need for a standard graphics format for information exchang e. We should be able to grab an image from the world around us, manipulate that image to display our perceptions, and send the image to other computing machines. As valuable as the written word can be, it is nonetheless an abstraction, whose best use is in concert with our visual experience of the world. Unless everyone is to purchase the same computer for communications, we need to develop and agree upon a standard for the exchange of images. Just as a television image is available on a Motorola or a Mitsubishi, a standard digital graphics format should be available on many hardware bases.

Consider the impact a standard graphics format would have on distance education. Those few teachers who have used advanced interactive graphics systems for teaching believe they have experienced an enhancement of the educational process. The nature of communications is subtly changed, so that I really can show you what it is that I see, and you can allow me a glimpse into your mind. The communication may occur on a one-to-one basis, or may include an entire network of distant students and many teachers. The communication may be immediate and on-line, or may be delayed and resemble a continuous conference. The people in the network largely have control of the medium, and possess a degree of expression previously available only on broadband interactive television.

We are heading in unexpected directions with computing and telecommunications. This Thursday, May 4, for example, we are launching the Magellan space probe to Venus, hoping to acquire a full planetary year of imaging information. Closer to home, if we can achieve graphics connectivity among our machines, perhaps we will be able to extend our experiences to each other, no matter where we are located.

Reference:

*Abelson, H. and G.J. Sussman. Feb., 1988. "Lisp: A Language for Stratified Design", BYTE, Volume 13, Number 2, p 207.

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**ITEM #7**

**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. Feel free to send suggestions to the editor.]

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

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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:

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

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End of the Online Journal of Distance Education & Communication