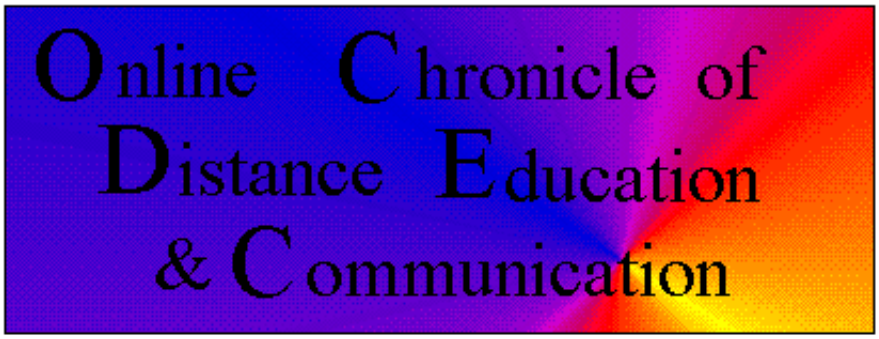

Volume #4, Issue #5

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Editor:
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.

Volume #4, Issue #5

May 1991

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NOTE: This is the last issue of the 90-91 school year. Once again, it has been an incredible year. The readership has grown and the bounds of distance education have been stretched. Thanks to your support, we will be back next year. I will spend at least part of my summer lying on Douglas Beach in Douglas, Alaska and comparing the tan I receive from natural sunlight with the tan I have received from sitting for the past nine months in front of the 20 inch monitor hooked to my Macintosh.

NOTE: In the last issue I asked whether you would prefer a more active listserv, like most other listservs in which there is a steady flow of messages among listserv members. Those who responded were strongly opposed to that idea. Thus, the Online Journal will continue to act as a distillery and publish short articles only as frequently as submissions permit.

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

PLEASE NOTE: Everything beyond this point has been lost.

ITEM 1.

A Progress Report on the Agricultural Satellite Corporation (AG*SAT)

By Randy Bretz

The second anniversary of the initial meeting to discuss the formation of the Agricultural Satellite

Corporation (AG*SAT) arrives this summer and already there is great progress to be reported. For those interested, here is a progress report.

1. Participation -

   To date thirty-three land grant institutions have affiliated with AG*SAT to take advantage of the unique opportunities available. These institutions are located in all regions of the country. A number of additional land grants are preparing to join as of the new fiscal year. An Educational Affiliate category is being established to allow non-land grant universities to share in the programming. And a new non-landgrant Corporate/Government affiliate category will enable employee participation as well.

2. The AG*SAT Technical System -

   One of the first tasks that faced the affiliates of AG*SAT was to prepare and submit a proposal seeking federal funding for satellite equipment. That proposal was funded by the U.S. Department of Commerce Public Telecommunications Facilities Program. Many institutions are already connected. The AG*SAT Satellite Operations Center is being installed at the University of Nebraska-Lincoln. Even before the first pieces of equipment were installed, a second proposal was submitted (January, 1991) to seek funds for the continued development of this comprehensive nation-wide satellite network.

3. AG*SAT Administration -

   The interinstitutional structure of AG*SAT is composed of six working councils. The chief agricultural academic officer at the affiliated institutions serves on the Administrative Council. From this Council twelve members are elected to serve rotating terms as the AG*SAT Board of Directors. The Executive Director of AG*SAT serves as the thirteenth member. Representatives from the United States Department of Agriculture serve on the Board as Exofficio members. Deans and Directors of Resident Instruction and Cooperative Extension serve respectively on the AG*SAT Resident Instruction and Cooperative Extension Councils.

   These two groups are charged with the development and sharing of credit and non-credit programs, courses and teleconferences. In addition two other Councils, the Research Council and International Council are composed of appropriate representatives from the affiliate institutions. They are charged with developing and sharing programming, courses and teleconferences to share research development and results, and to carry agricultural programming to and from other countries. Key to the functioning of these programming councils is the Production and Operations Council which includes the producers and directors from their respective campuses. This Council is involved in the production and reception of the various programs which are distributed via satellite.

4. Credit Programming -

   AG*SAT's first credit courses have already been scheduled and offered through AG*SAT. Nearly 300 students enrolled in two courses, one offered by Iowa State University in Sustainable Agriculture and the second from Pennsylvania State University in Food Science.

   Nearly half of the affiliated institutions participated in this pilot semester. Credit courses are specially designed to be taught at a distance and include interactive components via telephone, facsimile and

computer. In some cases, the courses are jointly planned and taught by faculty teams composed of recognized experts in the field.

5. Teleconferences -

   Cooperative Extension units have joined together to take advantage of the national satellite connection offered through AG*SAT. Nearly 40 teleconferences have been offered since the first of the year. The subjects have included pesticide safety, swine breeding and management, agronomic and economic decisions related to the FARM Act of 1990, gardening, leadership, farm and ranch owner updates and writing for professional journals. Each teleconference can be used on the campuses of the affiliated institutions and dispersed to other locations within their states as well. One program, for example, reached 35 states at more than 150 sites.

6. International and Research Potential -

   Two of the most recently constituted councils are addressing these areas. Each council includes deans and directors representing their institutions with these programs.

   Internationally, program and information exchange could originate both from the United States destined for other countries and vise versa. The United States is considered a leader in world agriculture and this expertise can and is being shared. The transmission of programs, courses and teleconferences via satellite makes it easy to reach one or a group of countries with the same information.

   Furthermore, it is much more economical than sending a team of faculty to offer a presentation or program. And, as other countries identify their needs, a single teleconference beamed from that country to the United States can share those needs with hundreds, if not thousands, of faculty members at the same time. In this way it is possible for the United States to respond more comprehensively to the needs identified.

   In the area of research, those involved in these activities could share findings, processes and other information related to their research or proposed research. In this way the information is quickly shared and the research can move forward more quickly. At the same time, research results can be widely shared through a single teleconference, accomplishing in the matter of a couple of hours what may have taken weeks, months or even years to do without satellite connections.

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ITEM 2.

News From the Western Cooperative For Educational Telecommunications

By: Mollie McGill
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The following "news briefs" are excerpts from COMMUNIQUE, the official newsletter of the Western Cooperative for Educational Telecommunications, a regional membership organization based in Boulder, Colorado.

WESTERN COOPERATIVE COMMITTEE REPORTS

Legislative Briefing Video Completed

In December, the Legislative Briefing Committee completed production of the videotape, "Educational Telecommunications: Investing in the 21st Century." Since its release, the video has been used by Western Cooperative members throughout the region to brief legislative committees, educational governing boards, and faculty and administrator groups on campus.

"Educational Telecommunications: Investing in the 21st Century" presents the message that continued support of information and education networks is critical for the success of tomorrow's students. Moreover, the full potential of these networks will require changes in existing educational and financing policies, thoughtful restructuring of educational relationships, and provision of additional resources. The video concludes that educators, industry executives, legislators and other policymakers all have an important stake in ensuring that these networks are used effectively and efficiently to meet the educational needs of students and workers in the 21st century.

Clearly, the video is meeting a need within our membership for an awareness-building tool that presents a range of technologies and educational applications. Within six weeks, the first supply of tapes was sold out.

This 10-minute videotape (1/2" VHS format) was produced by the Southern California Consortium for the Western Cooperative, with support from Burlington Resources, the Northwest Academic Forum, and WICHE. The purchase price for members is $13 and $28 for non-members

User Services Committee

In February, the Faculty Development Subcommittee of the User Services group published the "Faculty Resource Guide to Distance Education." Barry Willis (Alaska), subcommittee chair, describes the guide in the foreword as "flexible to accommodate the still emerging and constantly evolving nature of the distance education enterprise. Similarly...the faculty developer needs a full 'bag of tricks,' as opposed to a set format and pre-programmed approach to the design, development, adaptation and/or evaluation of distance delivered instruction." As such, the guide provides faculty and instructional designers with an overview of major faculty development topics and then offers an annotated list of references and names of resource people pertinent to each topic.

The guidebook is intended to be expanded and updated as new materials are added and therefore

is published in a loose-leaf notebook format. The Faculty Resource Guide to Distance Education is available to members for $13.50 (without a binder) and $27 for non-members.

Another subcommittee of the User Services group is in the final stages of completing their project. "A Distance Education Guidebook for College Administrators" will cover such issues as intellectual property rights, differential salary, tenure criteria, and financing. Robert Threlkeld (California) and Kathryn Kilroy (Arizona) serve as co-chairs of the Administrator Subcommittee.

A third and related publication that is just getting underway is a "Guide to Distance Education for K-12 Educators." The K-12 Education Caucus has held several audioconferences to decide on the goals and format of such a guide and to review a preliminary outline. Kathryn Kilroy (Arizona) and Eric Feder (Colorado) will be coordinating the production of this resource for our K-12 members.

NEWS FROM MEMBERS

NATIONAL EXTERNAL DEGREE PROGRAM ANNOUNCED

Five Western Cooperative members--Colorado State University, Oklahoma State University, University of Oklahoma, Utah State University, and Washington State University--are among the nine charter members of the National Universities Degree Consortium (NUDC). Improved access to baccalaureate degree programs especially for nontraditional students is the goal of this new consortium. Partnering with NUDC is Mind Extension University, The Education Network which will deliver these degree programs via their satellite broadcast and cable television networks. Courses will be concentrated at the 3rd and 4th year levels and will build upon community college offerings.

The first degree program will be a Bachelor of Science in Management from the University of Maryland University College, beginning Fall 1991. Courses will be designed by the faculty of the nine NUDC member institutions and the degree will be offered by University College. Tuition for the Management program is $176 per hour. Students must meet admission requirements of the University College and could complete the degree within about three years depending on number of a completed credits.

The other NUDC charter members are Kansas State University, the University of New Orleans, and the University of South Carolina.

AUDIOTAPES TO COMPUTER CDs

The recently created Center for Information Technology of the University of Alaska announced the recipient of its first grant. Project Jukebox will use computer technologies to preserve and improve access to more than 5,000 oral history tapes in the University of Alaska Fairbanks Rasmuson Library.

CONSORTIUM FOR GRADUATE TEACHER EDUCATION FORMED

The Washington Satellite Consortium for Graduate Teacher Education was formed in 1990 to provide broad statewide access to graduate education for teachers. The consortium involves

public and private universities in Washington in planning a curriculum that will provide three graduate courses per year to the STEP/Star Schools Network beginning in Fall 1991. Students may apply for admission to any one of the participating universities. Courses will be taught by top faculty from consortium universities, beginning with "Organizing Classrooms and Schools to Teach At-Risk Students," taught by Dr. Richard Sagor of Washington State University. For information about the consortium, contact Janet Kendall, Washington State University, (509) 335-3557.

"SEND-IT" in Southeast North Dakota

The North Dakota Interactive Video Network, the state's new compressed video network, is well underway with 23 courses and numerous seminars being delivered over the system this spring. For projects involving elementary and secondary schools and districts, the state's Educational Telecommunications Council recently awarded $1.1 million in grants. The Council also funded a pilot data networking project involving North Dakota State University (NDSU) and the Southeast North Dakota Telecommunications Consortium which is comprised of 47 secondary schools. NDSU'S School of Education and Computer Center are directing this project, called SEND-IT.

The goal of SEND-IT is to enhance the curriculum of secondary schools by encouraging the use of computers to share ideas and activities among teachers, and by helping teachers and students to gain access to regional, national, and international resource materials. NDSU has trained educators at each cluster who in turn will train building-level facilitators at each district in their cluster, and will provide project oversight and evaluation. NDSU will also create instructional forums by discipline area. These forums will include listings of existing computer- based curriculum packages that can be tested by the classroom teacher as well as informal discussion groups for teachers to share ideas about applications and problems.

The file server for this project is a NeXT computer housed at NDSU. The system will be linked to the North Dakota Higher Education Computer Network giving SEND schools access to the Internet and BITNET networks.

For more information contact Bill Woods, Project Co-director and Professor of Education, NDSU, Minard Hall, #321, Box 5075, University Station, Fargo, ND 58105, or call (701) 237-7085.

COLORADO REGIONAL NETWORK RECEIVES GRANT

The San Luis Valley Board of Cooperative Educational Services (BOCES) Regional Distance Communications network (ReDiCo) has received a $199,500 grant from the Colorado Department of Local Affairs. This grant will be used to purchase hardware for the first phase of a fiber optics network capable of carrying voice, video, and data throughout this high mountain valley. Initially connecting four to eight towns and villages through their high schools, ReDiCo is designed to provide increased K-12, economic development, medical and higher education, and life-long learning opportunities to residents in these geographically isolated communities.

Organized through the San Luis Valley BOCES, the planning committee includes representatives of all regional school districts, the area vocational school, Adams State College, regional

economic development councils, local and regional businesses and numerous government entities. This broad base of support insures success of the initial and subsequent phases.

For further information, contact Jerry Cook, Director, San Luis Valley BOCES, (719) 589-5851.

COLORADO DEPARTMENT OF EDUCATION SPONSORS TELECONFERENCE SERIES

Designed to meet the needs of Colorado's K-12, library, and higher education communities, the Colorado Department of Education (CDE) has designed a series of live satellite teleconferences on issues of statewide and national importance. The spring 1991 series begins on April 11 and includes:

- "Improving Learning Through Student Proficiencies"
- "The Many Faces of Giftedness: Beyond the Regular Curriculum"
- "Alternative Information Futures: Is the Glass Half Full or Half Empty?"
- "Alternative Teacher Certification: Separating Myth from Fact"

A complete description of these live, interactive teleconferences appears in the Calendar section of COMMUNIQUE. For additional information on how institutions in your state can participate for free or purchase videotapes of these teleconferences, contact Roma Duffy at (303) 866- 6678.

If institutions in your state are interested in cooperatively planning and producing future teleconferences, contact Eric Feder at (303) 866- 6859.

US WEST GRANT TO UTAH STATE UNIVERSITY

The US West Foundation has awarded a $294,000 grant to Utah State University to expand its Electronic Distance Education program. The three-year grant will support primarily program development in three areas:

1. Economic development. Four training programs to improve the economic and business environments in rural communities will be developed.
2. In-service Teacher Training in Math and Science Education. Five courses plus information and instructional resources will help rural schools offer this needed service to teachers.
3. In-service Teacher Education in Social Sciences and Language Arts. Specialists at Utah State University, the Department of Education, and other colleges and universities will use interactive telecommunications to conduct special seminars for rural teachers and students on current issues.

Several technologies will be used in the delivery of USU's distance education program, including their existing and successful audiographics network which will be expanded to 12 additional sites by 1993-94, and EDNET, the statewide microwave system.

For more information contact: Glenn Wilde, Executive Director, Electronic Distance Education, MLLRP, Utah State University, Logan, UT 84322--3000, or call (801) 750-1134.

ROUND TWO OF ALASCOM GRANT

Five proposals received funding as part of the second year of an instructional and faculty

development grant administered by the Statewide Distance Education Office of the University of Alaska System.

Alascom, the state's primary public telecommunications carrier, awarded a two-year grant of $50,000 for efforts aimed at integrating distance education offerings within the system. The grant funds will be used to offset audioconference toll and satellite transponder costs, equipment purchases, and curriculum development activities.

The five funded projects are:

- "Current Issues in Vocational Education" at UA Anchorage;
- "Computer Literacy on the Macintosh" at UA Fairbanks;
- International Business at UA Anchorage;
- Prince William Sound Community College for equipment purchases;
- Masters of Public Administration course from UA Southeast.

For more information contact Barry Willis, Statewide Distance Education, University of Alaska System, 3890 University Lake Drive, Anchorage, Alaska 99577, or call (907) 786-4600, or send BITNET mail to ANBW@ALASKA.

UTAH INSTITUTIONS ADOPT COURSE SELECTION CRITERIA

Utah's higher education institutions have adopted a set of standards and priorities to guide the selection of academic courses to be delivered via the state's educational broadcasting channel (KULC-Channel 9) and over the state microwave network (EDNET). EDNET links all 9 of the colleges and universities plus 14 other sites in the state.

These policies were prepared by the 9 institutional chief academic officers and were recently adopted by the Utah Education Network Consortium. New courses must demonstrate and/or satisfy minimum criteria in the following areas: institutional endorsement, detailed course description, potential enrollment, utility towards a general education requirement or specific degree/certificate program, and nonduplication of existing course.

NEW RESOURCES AVAILABLE FROM THE WESTERN COOPERATIVE

The Western Cooperative is pleased to announce the following new releases:

- "Educational Telecommunications: Investing in the 21st Century," a 10- minute videotape created by the Legislative Briefing Committee for presentations to policy making groups.

- "Faculty Resource Guide to Distance Education," a guidebook on recommended content areas for faculty development activities relative to distance education.

- "State Planning and Implementation of Educational Telecommunications Systems in the West" summarizes the status of major educational telecommunications systems and plans in the 16 western states as of January 1991.

Contact the Western Cooperative for more information about these resources and about subscriptions to COMMUNIQUE. Contact Ms. Dale Cracraft at 303-541-0231 (phone), 303-

541-0291 (fax), or via MCI Mail (407-3659).

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ITEM 3.

The EDUCOM K-12 Networking Project
By Dr. Art St. George
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The K-12 Networking Project aims to link together a critical mass of practitioners in primary and secondary education through computer- mediated communication networks; and, with this connectivity, to develop network-using resources to support curriculum reform and institutional restructuring.

Rationales for K-12 networking

Both teacher and administrator groups argue forcefully that the practitioner communities need to be connected among themselves and to one another.

Reducing isolation is one aspect of a broad commitment to restructuring in K-12 education. Restructuring means many things to its proponents, but improved communication and curriculum reform are invariably part of its action plans. Networking can be an invaluable aid to curriculum reform and communications improvement programs.

Collaborative student and class projects call for networking. Another reason for linkage is to connect with mentors and supporters: with subject matter specialists, educational researchers, and faculty mentors at schools of education and other college and university settings; and with corporate volunteers and such specialized groups as publishers.

Last but not least, common access to resources in standard format independent of geography and distance is a significant rationale for networking K-12 schools and practitioners.

The current state of network use in K-12 education.

Practitioners who are using computers and computer-driven communication as part of K-12 education mostly report favorable experiences, although there is also frustration about the state of the supporting infrastructure. Proponents for networking are increasing, although the numbers are still small in proportion to the total.

Networking supporters need to inform the broad K-12 educational community (administrators, policymakers, board members, curriculum specialists, teachers, professional groups) about opportunities (and problems) in networking in support of K-12 education.

On the positive side, the number of network-using resources for K-12 is growing. However, there is a lack of connectivity between resources, insufficient information exchange, little knowledge of the full breadth of services and resources available, and little comprehension of the full implications of computer-driven networks for education. Both enthusiasts and skeptics need to understand the background issues of educational reform that provide a context against which networking (along with other innovations) will be assessed.

There are still problems with access to computers themselves, and to telephone lines. The current least common denominator of K-12 network user interaction is not very "user friendly," requiring a good deal of user learning. It can be hard to find support while learning, and finally it can be difficult to grasp the range and variety of resources available once a person has expended all this time and effort.

Although there are a good many systems offering more than this least common denominator, access to these systems is problematic and interconnections between systems are, quite broadly, lacking. This denies many systems a national audience or market, and makes access difficult for many individuals who would like it. In particular, per-use charges for telecommunications access are unsuited to school system budgeting procedures, and often too high for individual teachers or schools to afford.

An evolving national strategy.

We envision a path toward a critical mass of connectivity for K-12 education, directed at the achievement of seven objectives:

1. integration of currently disparate physical networks and resources into a common network system, the national Internet;
2. provision of an integrated set of services over the national network, directed toward addressing K-12 needs;
3. improved linkage between users, resources, and services, and the creation of new resources and services;
4. increased linkage between K-12 districts and schools, and postsecondary education;
5. development of user-friendly interfaces to network resources;
6. increased participation by the K-12 educational community; and
7. planned evolution toward a complete national system: networked schools, connected to regional, state-level, and national networks serving K-12 and postsecondary education.

EDUCOM's role; current activities and plans. Implementation of the national strategy will call for combined action by many participants, and the K-12 community will have to assume a significant leadership role in partnership with postsecondary education, the corporate sector, and government at all levels. EDUCOM's most important role may well be brokering: helping the K-12 community recognize and assess the opportunity being offered, and working to put the combined resources and skills of postsecondary education and research -- embodied in the Internet "matrix" -- at the service of K-12 users.

The most immediate priority is to help establish the "K-12 network: "to support the creation and integration of a set of resources of immediate use the K-12 practitioners on the Internet. The key effort will be a connectivity project, in which existing K-12 programs, resources or networks will be linked into the Internet. EDUCOM, in collaboration with other groups, will coordinate the linking of approximately ten such resources per year, and will help assess their educational impact.

Along with actual work to "build the network" goes evangelism -- publicizing K-12 resources and services, and stimulating dialogue about their use in the broader educational reform context. A principal activity is to discuss current policy developments leading to a National Research and Education Network (NREN), and the potentials and issues of networking for K-12 more generally, with a wide range of educational audiences. Another is the development and maintenance of directories of K-12 people and resources; a third is the development of a user orientation packet, including primers and guides to training resources.

Other activities will include publishing a regular column on K-12 networking in the EDUCOM Review; conducting sessions on K-12 network resources at various EDUCOM meetings; seeking avenues for business and industry collaboration; and conducting outreach (including providing guest accounts on the Internet) to key practitioners and policymakers.

Materials.

The K-12 Networking Project works to obtain information about existing programs and resources of all kinds related to networking for K-12 education. Such information will be gathered into a variety of publications. Materials currently available are:

- Charp, Sylvia. Impacts of K-12 networking. May 1990.
- King, Kenneth M., and John Clement. Toward a national network infrastructure for K-12 education: Final report on a fact finding project. Washington, DC: EDUCOM, 22 June 1990.

  [This early document examines major issues in the development of a national strategy for K-12 educational networking.]

- McAnge, Thomas R., Jr., Marcia Harrington, and Mary Ellen Pierson. A survey of educational computer networks. Blacksburg, VA: Virginia Polytechnic Institute and State University, June 1990.

  [This survey was conducted on behalf of EDUCOM; although now dated and a little incomplete, it provides a valuable overview. Available in paper (while supplies are available) and online.]

For information about EDUCOM's K-12 Networking Project, about the activities mentioned above, or to obtain the materials listed, please contact John Clement, project director. He can be reached at: phone- 202/872-4200 fax- 4318) email- jrc@bitnic (BITNET), clement@educom.edu (Internet), or educom (AppleLink). Postal mail can be sent to: EDUCOM, 1112 Sixteenth St., N.W., Suite 600, Washington, D.C. 20036 USA.

EDUCOM, founded in 1964, is a nonprofit consortium of higher education institutions which facilitates the introduction, use, access to and management of information resources in teaching, learning, scholarship, and research. The work of the organization is conducted in cooperation and partnership with the broader education and library communities, professional societies, government at all levels, and information industries.

For information about membership, programs, and projects, call 202-872-4200.

ITEM 4.

Microcomputers and Telecommunications, Welcomed Additions in Teaching Education Law on the Last Frontier

By Lawrence Lee Oldaker
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Universities, as other public and private sector organisations, do not appear to be immune from mounting pressures to attain more efficiencies in performing their instructional services. In general, institutes of higher education are in a highly competitive arena as they seek student and program support in the current economically troubled times. Many schools in financial retrenchment look to electronic media products and programs to lessen personnel and transportation costs.

Educators at the University of Alaska Southeast, Juneau, were in the process of extending graduate courses to sparsely populated "bush" regions when petroleum revenues plummeted in the mid-eighties. As an alternative to delaying or limiting the scope of the program, faculty members surveyed the rapidly expanding electronic data processing market to seek suitable means to carry traditional classes to off-campus locations. Teaching methods and materials designed for the "outreach" program were implemented and blended with on-campus resources to enrich student participation.

A required course in educational law for school administrators was adapted for distance delivery. Students scattered throughout the vast state apply for program admission, register for the class, receive instructional materials, interact with classmates through a variety of means, and complete course requirements from their school or home site.

Limited comments on activites featured in the graduate school law course are as follows:

1. Telecommunication class sessions. Each individual or group of students reach the LearnAlaska "bridge" in Anchorage by using an 800 number. Special arrangements are been made to accommodate more than the standard ten sites and allow "collect" calls from the Lower 48 when the instructor or a student is traveling out of state.

2. Electronic bibliographic and data search. Materials for class discussion and projects can be obtained from library sources (GNOSIS). Statutory provisions are ordered through the legislative information office (STATE). Federal-state-local court information (WESTLAW) can help the researcher document case and statutory law.

3. Audio/video tape exchange. Students review prepared tape and prepare their own products for class sessions.

4. Microcomputer tutorial lessons. A tutorial on conducting school law research is mailed to students from university personnel in the campus library. The original AppleWorks program is being revised in HyperCARD and expanded to cover additional topics.

5. Long-distant contact. Traditional and costly telephone and FAX machine contacts are used when faulty mail deliveries, audioconference troubles, power failures, severe weather, or other woes arise.

6. Electronic mail and conferencing. The increased use of electronic mail communications and class conferencing (PortaCOM and BITNET) is highly valued in "outreach" instructional efforts. Although personal and group interaction between professor and pupil is enhanced, the growth among students working with each other is worthy of special praise. This peer contact improves problem solving, research, writing, data management, and interpersonal skills.

The distance education plan permits the geographically isolated student to remain active in the program through the cold, winter-locked months. As an ancillary benefit to the university, the instructional additives designed for off-campus use have enriched the regular on-campus classes.

In either case, the improved degree sequence is available for statewide students and can usually be finished in four semesters. Most "outreach" students continue to delight in meeting each other face-to-face when they meet in summer Auke Lake Campus classes.

Nota bene: Dr. Oldaker teaches the educational law course and is Associate Professor and Head, Graduate Programs in Educational Administration, University of Alaska Southeast in Juneau.

ITEM 5.

Telecommunications...The Future is Here!
By Sally Laughon
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[Reprinted from _Vision,_ Winter, 1990, published by the Virginia Association of Independent Schools.]

"I speak German at home, but my dad wants me to practice reading and writing it. Can I find someone in Germany to write?" "Have you heard from anyone in Korea? I'd like to communicate with someone there." "Oh my gosh! I think I solved it. I thought this problem would take forever!"

These remarks pepper the conversations among students in computer classes, in the Telecommunications Club and with the Upper School computer teacher. Two years ago, North Cross School received international electronic addresses as part of a pilot project, the Virginia Tech Educational and Research Network (VERN), linking four secondary schools in Virginia with colleges and universities across the state. The addresses gave North Cross students and teachers the ability to communicate with others across the world using established electronic networks.

The Virginia Tech project originated to teach secondary educators and students about data communications, to learn about training needed for teachers, and to develop a group of well-informed and skilled users.

Today, North Cross has 5 dedicated telephone lines and 9 computers equipped for telecommunications. Five

computers on carts can be used in classrooms throughout the buildings. Telephone jacks positioned strategically in 20 rooms allow easy access for a myriad of projects that span the curriculum.

When the pilot project began, two trained teachers spent time learning technical skills and researching, coordinating and compiling project ideas for each curriculum area. At first, teachers did not recognize the incredible potential for classroom use. Once skills were mastered and electronic mail from several dozen online discussion groups had been read, it became easier to involve other teachers.

In the Upper School, communication activities promptly became part of Computer Applications classes. First we learned a few skills by reading electronic mail. We searched for biographical sketches posted by other students wanting to communicate. We wrote our own introductions and sent them for world-wide distribution. When pen pal exchanges became too voluminous, those activities were moved to time blocks outside of class.

All computer students learn how to use the online Virginia Tech Library System (VTLS) and how to utilize the Dialog data bases for research projects and papers. Over 75 online data bases allow searching through topics in books, magazines, thesis papers, professional journals and newspaper articles. Full text articles from national newspapers allow instant research from a medium notoriously tedious to use in the past. Dialog users uncover over 5,000 articles written about "Noriega and drugs" in magazines during the year 1989. Because of the overwhelming volume of information available, effective use of online data bases demands specific and narrow topics.

In addition to using networks for research and corresponding with pen pals, Pascal programming students collaborate with another class to analyze, define, write and evaluate sections of a programming project. Each class exchanges completed modules and the pieces are merged together for compilation into one working program.

Twice a month, computer students print a math problem located on a computer in Indiana. Solutions may require a formula, trial and error, combinations, or "Just thinking about it," as one student explained. This problem solving activity is the beginning of another online project planned for math teachers and students.

The Telecommunications Club is accumulating a list of questions designed to explore cultural differences among students across the globe. With research information, guidance from the history department, and assistance from our international exchange students, we plan to design a questionnaire and submit it to several electronic discussion groups to learn what makes our cultures unique.

Ninth grade English students wrote a short essay answering the questions: "Who am I and what can I do to improve the future of the world?" These essays were sent to the international discussion group, KIDS-91. This electronic list was developed for students ages 10 to 15. The manager of the group lives in Norway, but responses to the "Who am I" questions and other messages are housed on computers in Canada and North Dakota.

Science students share lab results and other data with distant classes. A larger pool of data enables more precise evaluation of results. Students and teachers post questions to professionals in the scientific community, wherever they are located. Discussions between the AP Biology classes at North Cross and the Roanoke Valley Governor's School culminated in a joint meeting and panel discussion on the historic implications of the Biosphere II project.

French students can correspond with native speaking contemporaries and other French students around the world. Interestingly, many native French students want us to write in English to help them with their studies!

When telecommunications came to North Cross, we began to explore the remarkable and exciting opportunities for learning. Our teachers have embraced this technology with such enthusiasm that last fall, a second phone line was needed for the Upper school. The networks have opened a window to the global community of information, educators and students but we realize we have just begun to tap the vast resources available to us.

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North Cross School
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laughon@vtvm1.cc.vt.edu

ITEM 6.

Virtual Worlds Simulation Project Invitation

By Linda Delzeit
aa621@cleveland.freenet.edu

Any teacher or classroom which has Internet access is invited to participate in the first "mission" in the Virtual Worlds Simulation Project running May 17th on the Cleveland Free-Net Community Computer system.

Below are two files which will briefly explain how the simulations work. To see the project itself (albeit, still under construction) do the following:

> Go into your local host computer and telnet into:
>
> > 129.22.8.75 or
> > 129.22.8.76 or
> > 129.22.8.82,/blockquote>
> >
> > and go into the Cleveland Free-Net as a visitor. When you (finally) get to the main menu either select #8 and go into the schoolhouse (Academy One), or just type: go voyage at the main menu prompt.
>
> For the May 17th launch we have schools from California to Finland joining in. If you are also interested in participating, let me know via e.mail at: aa621@cleveland.freenet.edu

HOW THE VIRTUAL WORLD SIMULATIONS WORK

> The objective of the Virtual World Simulations Project is to provide an interesting and creative way for students around the world to apply science, math, reading, writing, and telecomputing skills to solve very real (albeit fictional) problems.
>
> The vehicle for doing this is a imaginary future in which the secret to long range space travel has been solved. Using this discovery, a "gateway" was established at the L-5 point between the earth

and the moon which would allow multiple expeditions to pass through to explore the "virtual worlds" which lay beyond.

Because of the energy required to keep the gateway open, each mission is (conveniently) only one school day long. Prior to each "gateway opening," however, students and teachers must plan their itinerary and activities. For example...

> The teacher might want to provide "drone survey data" on the nature of the planet they will be visiting. Students would need to look up information on those conditions and talk about the kind of hazards (or opportunities) they present. Some students might be tasked with designing experiments to run when they get there and actually doing them in the classroom as if they were exploring the planet. Other students might be given the job of reporting the results back to "mission control" by writing them up and sending them via computer. A variety of tasks can be established, each one tying into specific on-site educational objectives.
>
> On launch day, here's how it all fits together...
>
> Each expedition starts with mission control sending the school an electronic mail message (at the appointed hour) clearing them to launch through the L-5 Gateway, giving them the condition of the gateway, wishing them good luck, etc.
>
> Every hour, on the hour, each school posts mission reports to the Free- Net on what they are doing, experiencing, any experiments they ran, etc. These files are posted in the format of being a report back to mission control.
>
> Every hour, on the half-hour, mission control summarizes the reports from all the expeditions and posts a mission-wide bulletin for all to read. Thus everyone can then see what's happening on the other Starships and, if intrigued, can go read and/or download the original reports.
>
> The net result is an interesting and challenging way for students to utilize (or acquire) a wide range of skills and knowledge.

ITEM 7.

Accesing the UK Open University Online Database for Distance Education

By HIDEO TOMITA
tomita@vax001.kenyon.EDU

Online Database for Distance Education

This is a brief summary of how to access the online database on Distance Education at The Open University, UK. More detailed and complete description can be found in the original file posted on Distance Education Online Symposium News #5 (DEOSNEWS #5) by Morten Flate Paulsen.

Here's some information about the listserv and the original file for interested parties.

1. To subscribe to DEOSNEWS

   send to: "listserv@psuvm.psu.edu"
   subject:(blank)
   txt.body: Sub DEOSNEWS (your full name) --no brackets needed

2. To get DEOSNEWS #5

   send to: Tomita@vax001.Kenyon.edu
   subject:SEND DEOS#5
   txt.body:(blank)

Until 5/31/91 for #2 above. Please try the above listserv after this date.

Hideo Tomita
Kenyon College, OH
(614) 427-5800
Tomita

This file describes how to get access to ICDL (International Center for Distance Learning) database located at The Open University, UK. The database can be accessed through the Telnet service on Internet. In [1] below the address and log-in procedures are described, and [2] illustrates an actual log session leading to the information about University of the Air, Japan. The keyboard input is in[[ ]].

[1] Telnet Address

Telnet [[sun.nsf.ac.uk]] or [[128.86.8.7]
Login [[janet]] --lower case
JANET host name [[uk.ac.open.acs.vax]]
User Name [[ICDL]]
Your Name: [[xxxxx]] <----Your actual name
Institution [[xxxxxxx]] <---- your institution

At this stage, you are ready to access the database.

[2] Example log session.

[[telnet sun.nsf.ac.uk]]
Trying... Open
Connected to sun.nsfnet-relay.ac.uk.
Escape character is '^]'.

SunOS UNIX (sun.nsfnet-relay.ac.uk)

login: [[janet]]
Welcome to the JANET X.25 PAD Service.

Enter a JANET hostname (i.e uk.ac.janet.news) 'h' for help or 'q' to quit.
hostname: SunLink X.25 PAD V6.0. Type ^P for Executive, ^Pb for break

[[uk.ac.open.acs.vax]]

Calling... connected...
OU Academic Computing Service - VAXcluster Node VAXB

Username:[[ICDL]]

Logged on at 18:22:35 on Sunday 5-MAY-1991

Welcome to the Commonwealth of Learning information services at the British Open University.

Please type your name:
[[Tomita]]

and your institution and country:
[[Kenyon College, U.S.]]

The International Centre for Distance Learning, Open University, United Kingdom

---

There are three sections in the database :

Courses - C
Institutional - I
Literature - L
Please type C, I, or L to make your selection or E to End.

[[I]]

The International Centre for Distance Learning, Open University, United Kingdom

January 1991

INSTITUTIONAL SEARCH

To select a REGION, type a number and press the RETURN key

1 . ALL AREAS
2 . AFRICA
3 . ASIA
4 . AUSTRALASIA
5 . MIDDLE EAST
6 . EASTERN EUROPE
7 . WESTERN EUROPE
8 . NORTH AMERICA
9 . CARIBBEAN
10 . LATIN AMERICA

There are 239 document titles for a search on:
Region: ALL AREAS

[[3]] <--- for Asia

Searching for documents

There are 29 document titles for a search on:
Region: Asia

[[T]] <----- for titles in Asia

Reading in the document titles

Type a number and RETURN to view a title or B to go back to search screen

N Next page
P Previous page

1-17 of 29
1 CHINA : Central Radio and TV University
2 HONG KONG : Hong Kong Baptist College
3 HONG KONG : Hong Kong Polytechnic
4 HONG KONG : Open Learning Institute of Hong Kong
5 HONG KONG : University of Hong Kong
6 INDIA : Andhra Pradesh Open University
7 INDIA : Central Institute of English and Foreign Languages
8 INDIA : Himachal Pradesh University
9 INDIA : Indira Gandhi National Open University
10 INDIA : Kota Open University
11 INDIA : Osmania University
12 INDIA : Panjab University
13 INDIA : Punjab Agricultural University
14 INDIA : S.N.D.T. Women's University
15 INDIA : University of Bombay
16 INDIA : University of Kashmir
17 INDIA : University of

8-29 of 29
1 INDIA : University of Mysore
2 INDIA : University of Poona
3 INDIA : Yashwantrao Chavan Maharashtra Open University

4 INDONESIA : Universitas Terbuka
5 JAPAN : University of the Air
6 KOREA : Korea Air and Correspondence University
7 MALAYSIA : Universiti Sains Malaysia
8 PAKISTAN : Allama Iqbal Open University
9 SINGAPOR : Home Study School (Far East)
10 SRI LANKA : Open University of Sri Lanka
11 TAIWAN : National Open University
12 THAILAND : Sukhothai Thammathirat Open University

[[5]] <--- for Japan

Reading in the document

Region:
Asia - Japan

Nature of institution
Distance teaching only
Date information supplied by institution: 28 July 1989

PROGRAMME TITLE:

1. Degree:
Bachelor of Arts (B.A.)

ADMINISTRATION DETAILS:

Institution
University of the Air, Wakaba 2-11, Chiba 260, JAPAN
Telephone: (+81 472) 765111
Fax: (+81 472) 766130
Head of institution: Dr Kasue Koda, President

Contact person
Dr M Kaji, Vice-President for Academic Affairs
University of the Air, Wakaba 2-11, Chiba 260, JAPAN
Telephone: (+81 472) 765111
Fax: (+81 472) 766130

Specialists
Dr S. Obi, Vice-President for Student Affairs
Distance students currently enrolled in institution: 26,076
Annual intake of distance students into institution: 9,000

Distance-taught graduates/students completing programmes per year: 600
Distance-taught graduates/students completing programmes: 600
(First Distance-taught graduates/students completing programmes: 600
(First graduates 1989)

Full-time staff involved in distance teaching: 78
Part-time staff involved in distance teaching: 695

Number of courses: 294
Number of programmes: 6

Sources of funding
Public source(s): Government of Japan

Membership of national, regional and international organisations of distance teaching institutions Association of Asian Open Universities (AAOU)

Annual budget institution or department or programme (if publicly available): 8,886 Japanese yen (1989)

Date of establishment of institution/distance teaching activity: 1985

PROGRAMME 1:
Educational level of the programme or course described in this entry Degree: Bachelor of Arts (B.A.)

Subject areas taught

> Agriculture, Housing, Humanities, Arts (general), Humanities (general), Philosophy, Languages (English, French, German, Chinese, Spanish), Literature (Comparative literature, East and West), Commercial and management studies, Accountancy, Administration, Business administration, Finance, Management, Marketing, Personnel and industrial relations, Education and teaching, Educational policy and management, Educational psychology, Language, reading and communication, Youth and community education, Law (Japanese society and law, International community and law, Labor and law, Economic activities and law; Daily life and law), Mathematics, Mathematical sciences, Statistics, Medicine and health, Health studies, Science and sciences, Statistics, Medicine and health, Health studies, Science and technology, Biological and life sciences, Environmental studies, Computer technology, Computer aided engineering, Control engineering, Electronic systems engineering, Engineering, Engineering design, Materials science and metallurgy, Physical sciences, Geological sciences, Physics, Economics, Government and politics and international studies, Psychology, Social sciences, Sociology

Media and methods printed correspondence texts, radio, television, face-to-face counselling, regional services, study centres, day schools, weekend schools

Total study hours: 122

Number of weeks duration: 15 Language(s) of instruction: Japanese

Entrance qualifications
minimum age

Total number of credits making up qualification: 124
Number of credits per course: 2

Total number of students enrolled at this educational level: 17,719
Total annual intake of students at this educational level: 5,000

Students can not be resident anywhere in the world.
Students do need to be resident in specific countries or regions.

Additional information
Enrollment is possible only in the Kanto area (Tokyo and its neighbouring prefectures)

Fees :
students pay full fees
Course materials are available for distribution.
Course materials are available for sale

Complete qualifications are available through distance teaching.

RESOURCE 1:

The nature of the resource

> Our sister and neighbour institution called the National Institute of Multimedia Education has collected major books, periodicals, and printed and audio-visual instructional materials on distance education in Japanese and English

Precise scope and functions of the resource

> The above mentioned National Institute of Multimedia Education places emphasis on research on distance education and its library has the widest collection of books, periodicals, and instructional materials on distance education in Japan. It is made available to the University of the Air faculty members and students and to other researchers

Types of material collected

> Printed and audio-visual instructional materials including those produced by the British Open University. All the audio and video cassettes produced by the University of the Air

Classification scheme in use

> Japanese decimal classification system (JDC)

Services offered

The library provides literature searching and inter-university loan services to teaching staff and students. More services will be offered when a new library building is built in 1990

Publications, regular and occasional

> The library edits and publishes the journal of the University of the Air and distributes it free to major Japanese university libraries Date of establishment: 1985 (University library)

Number of staff and their roles

> The University library has 7 staff members who perform the routine duties of librarians such as ordering, cataloguing, and loaning books. The selection of books is mostly made by the teaching staff

Budget of resource

> 81,576,000 Japanese yen (1989)

Contact person

> Dr M. Higa, Director of the Library
> Wakaba 2-11, Chiba 260, JAPAN
> Telephone: (+81 472) 765111
> Fax: (+81 472) 759726

Future plans

The University library itself will concentrate on collecting books on usual academic subjects, since the National Institute of Multimedia

[[quit]] <--- for logoff

---- Please confirm exit by pressing Y or press any other key to continue

[[Y]]

Thank you for using these services.

ICDL logged out at 5-MAY-1991 18:31:18.67

Connection closed to sun.nsfnet-relay.ac.uk

----------End of the file.

Submitted by HIDEO TOMITA tomita@vax001.kenyon.edu