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## TELECOMMUNICATION RESEARCH EXPERIENCE

My involvement in the field of telecommunications has concentrated on action-oriented applied research. I've developed field-trial projects which attempt to determine the viability and appropriateness of telecommunication technology to serve people, not the other way around. Through the use of several low-resolution delivery systems (slow-scan video using telephone and narrow band satellite links) as well as computer assisted communication networks, I've organized 22 teleconferences to develop applications for interactive communication systems. Emphasis has been on the enhancement of face-to-face communications, not as a replacement.

Experiments include a feasibility study to develop a community access information service on Pender Island, B.C.. This project was an attempt to increase individual access to resources (social, educational, information, consumer) through the practical application of telecommunication technologies. Our research team worked to identify equality of services, education for the demystification of technologies, recognition of traditional geographic/social/ and economic discrimination, while ensuring the integrity of the individual. In determining user preferences, we stayed away from the traditional experimental methods with their practical limits and dependence on the objectivity of the observer, and attempted a more participatory and dynamic collaboration of researchers, practitioners, and community. While demonstrating information delivery systems, we tried to evaluate the sociological, political and technical problems inherent in rural field-studies and life styles.

To assist in this research, a charitable foundation has been established: Direct Media Association. Under this umbrella organization, a series of 8 public information expositions have been organized since 1978. These have included teleconferences using slow-scan video and computer communication networks. Twenty—two teleconferences have been organized and implemented, totalling over sixty—five hours of transmission time. In addition, another 200 hours have been spent in active communication over two computer networks: EIES (the Electronic Information Exchange System from the New Jersey Institute of Technology, and the I.P. Sharp Associates communication network. Networking has included synchronous and asynchronous conferencing, messaging, network development and design, interpersonal communications and project organization. Topics range from artists' use of telecommunications, computers in education, personal messages, network design for specific user groups, social implications, information exchange, ownership and copyright, privacy, addiction, economic and marketing strategies.

Direct Media Association is in production of an evaluation report to be published this fall. Continued interest from community, school, school board and project organizers has been expressed for the continuation of the Information Exchange Centre project. Plans are underway to broaden the user scope to include the other Gulf Islands. In addition to these local activities, we have been invited to develop short term projects at M.I.T. in Cambridge, and for a conference this summer in Austria.

## TELECOMMUNICATION FIELD-TRIAL PROJECTS

Organized by Bill Bartlett

Title: Direct Media Association; Charitable Foundation

Date: Federal Registration; September 1978

Objectives: Founding of a research organization to develop creative and humanistic applications for telecommunication technologies, in collaboration with the arts, commerce, governments, and educational institutions.

Participants: Board of Directors. Participation varies with each project.

Title: Slow-scan (freeze-frame) transmission projects

Dates: Four sessions, May-July, 1978

Objectives: Experimentation with slow-scan video using standard telephone system as carrier. Projects included point-to-point and multi-point links: 3-way and 7-way, using a telephone conference service.

Participants: Artists groups in Victoria, Vancouver, Toronto, New York City, Memphis (Tenn.), San Francisco. One session aired live over syndicated TV talk-show from Memphis into six US states.

Title: <u>Satellite-Telephone-Computer (Sat-Tel-Comp) Collaboratory, Open Space</u> Date: October 30 to December 10, 1978

Objectives: An exposition of telecommunication systems at Open Space arts centre in Victoria. Included a series of 14 slow-scan video point-to-point teleconferences. Included several workshops for students and teachers for developing interactive visual communication systems for instruction.

Participants: Camosun College, Spectrum School, Sundance School (Victoria), And/or Gallery(Seattle), University of Colorado, York University, Worldpool centre for telecommunications (Toronto). Public participation at each location.

Title: Pacific Telecommunications Conference, Honolulu, Hawaii

Date: January 8-10, 1979

Objectives: To demonstrate the usefulness of slow-scan video over the ATS-1 satellite, as an enhancement to a narrow band, audio frequency only communication system, thus providing visual information.

Participants: Conference participants (300) and staff at Simon Fraser University. ATS-1 was not available, and a standard telephone connection was made and employed for simulation.

Title: Interplay Workshop: Computer Culture Exposition, Toronto

Date: April 1, 1979

Objectives: To explore conferencing applications for the arts, radio, publishing, and education using computer assisted communication systems. A demonstration workshop for public presentation at the Computer Culture Exposition in Toronto, organized from Pender Island. A 12-point link using the donated system of the I.P. Sharp Associates (Toronto and Victoria offices). Session lasted 9 hours. Included one hour of SSTV link as well.

Participants: Monday Publications (Victoria), two locations in Vancouver, University of Alberta (Edmonton), Toronto exposition, M.I.T. (Cambridge), Austrian National Broadcasting Corp (Vienna), KPFT radio (Houston),

🗲 (Australian National University (Camberra).

Telecommunication projects: continued

Title: Pacific Rim: Slow-scan, Vancouver Art Gallery

Date: April 20- May 21, 1979

Objectives: To establish a visual communication link between members of the PEACESAT users group in the Pacific, using the ATS-1 satellite (NASA). 20 hours of transmission time. ATS-1 is used for educational purposes and slow-scan was introduced to enhance the existing audio link.

Participants: ATS-1 stations in Rarotonga (Cook Islands), Santa Cruz (California), Wellington (New Zealand), and Vancouver, via the terminal at Simon Fraser University Communication Studies Department (using a telephone link). Audience participation at all locations.

Title: Information Exchange Centre Study, Pender Island, B.C.

Date: Summer, 1979

Objectives: To provide community access to information services using telecommunication delivery systems. Public oriented information/education project involved a feasibility study to determine the viaibility of establishing such services in a rural community. Student employees organized a series of questionnaires, public meetings, guest speakers, video presentations.

Participants: Four students supported by a Young Canada Works project. Public participation.

Title: Artist Teleconference: Cultural Applications; Music Gallery, Toronto

Date: January 13- February 2, 1980

Objectives: Two-part project: 1.) To develop a system to assist collaborating musicians compose and perform improvised electronic music over long distances. Research included micro-wave and time-sharing computer networks. Feasibility study examined the University of Toronto computerized music composition program and the University of Victoria New Music program. 2.) A  $2\frac{1}{2}$  hour slow-scan transmission system demonstration presenting improvisational dance performances between dancers in Vancouver and Toronto.

Participants: Dancers and musicians in both cities. Live audience at each

Title: Artists' Use of Telecommunications; San Francisco Museum of Modern Art Date: February 16, 1980

Objectives: To organize a conference on the topic of artists' uses for telecommunications. Program included a 3-hour, 5-point slow-scan video exchange and computer assisted conference link. Conference panel discussions at each location.

Participants: A panel of writers, art curators and artists in San Francisco, students and staff at the University of Hawaii, Tsukuba University (Japan), M.I.T. (Cambridge), groups in Toronto, Vancouver and Vienna (Austria). Each remote location organized their own local activities.

Title: <u>Japan/Canada Satellite Exchange Festival</u>

Date: October or November, 1980

Objectives: Seven sessions will explore creative, social and cultura! applications for interactive satellite video exchange between Japan and and Canada. Two-way video will be used for the exchange of theatre, dance, architectual planning, video, artists' discussion, and a link between Japanese Ainu and inuit of Canada.