

THE CONTINUING EVOLUTION OF DEOS ELECTRONIC DISCUSSION GROUPS AND THEIR IMPACT ON SCHOLARLY COMMUNICATION

18th ICDE World Conference
The New Learning Environment: A Global Perspective
June 1997
The Pennsylvania State University

Authors:

Mauri P. Collins, Research Associate, Office of the Provost, Northern Arizona University, and Doctoral Candidate, Pennsylvania State University, Calder Square Box 10002, State College PA 16805, (520) 523-4059 Fax: (520) 523-0057, e-mail: mauri.collins@nau.edu

Carole Richardson, Director, Center for Distance Learning, Central Michigan University, Rowe 131, Mt. Pleasant, MI 48859, Voice: (517) 774-7160, Fax: (517) 774-3542, e-mail: Carole.Richardson@cmich.edu

Tom Clark, Ph.D., Senior Associate, Tom Clark Consulting, 1319 Carroll, Ames IA 50010, Voice: (515) 233-8322, fax: (515) 233-8322, e-mail: tomclark@ames.net

Type of Session: Informational

Session Objectives:

- (1) To describe the development and evolution of electronic discussion groups in general, and those devoted to distance education and related topics, especially DEOS-L and DEOS-R;
- (2) To report on the efforts of the presenters to establish the place of DEOS-R for scholarly communication, integrate it with existing distance education scholarly research efforts, and involve the distance education research community in these changes;
- (3) To describe planned and ongoing research on DEOS electronic discussion groups, especially that related to their impact on scholarly communication and research; and
- (4) To lead discussion of the roles that electronic discussion groups can play in the growth and development of scholarly communication, research and publication in distance education, especially in an international context.

I. The Development and Evolution of Electronic Discussion Groups

In *Learning Networks* (1995), Harasim and her co-authors end with a tongue-in cheek "Epilogue: Email from the Future" of breaking news in the year 2015, with headlines such as "University Administrators Awash in Unused Classroom Facilities" (p. 279). Might another of these headlines be, "Conference Facilities Vacant at Major Universities; Major Chains Closing On-Campus Hotels?" Luckily, such a scenario is highly unlikely, as is the empty classroom scenario.

Impact of electronic discourse on scholarship. Electronic discourse via computer mediated communications has undoubtedly had a substantial impact on scholarly discussion and communication in the last decade, as many authors have asserted. For instance, Harrison and Stephen (1996) note that "there seems little doubt that fundamental changes in scholarly practices at a grass roots level received their primary and initial impetus from scholars' participation in electronic conferences (p. 16)." But there is a paucity of research studies documenting this impact. There are many studies dealing with easily quantifiable topics such as numbers of users or volume

of electronic mail, and a growing number of good qualitative studies dealing with general discourse analysis or user perceptions (for example, Rojo, 1995), but so far there have been few direct large-scale studies of the impact that membership in electronic discussion groups has had on scholarship.

Surveys of IPCT-L and DEOSNEWS subscribers. Collins (1994) conducted a survey of subscribers to IPCT-J in July 1994, the findings of which were subsequently reported in that electronic journal, and Collins and Thompson (1994) modified this instrument and used it to conduct a survey of DEOSNEWS subscribers in November 1994. The DEOSNEWS survey included questions related to scholarly communication and research, such as: "Have you ever cited a DEOSNEWS article in your own work?" (37 percent of the respondents had) and "Please rate DEOSNEWS as a data source for your research." Fifty-nine percent of the respondents rated DEOSNEWS as a useful resource for research and 69 percent a useful resource for practice. Seventy-six percent felt these electronic journal articles of sufficient worth to pass issues onto colleagues and 75.6 recommended the journal to their colleagues. For those respondents from academic institutions who knew the promotion and tenure guidelines 12.5 percent reported that articles published in electronic journals received the same points as those published in paper journals, 14.4 percent reported somewhat less points, and 9.3 percent reported their receiving no points at all. This indicates that there is some limited acceptance of scholarship published in electronic sources. While specifically focused on scholarly communication and research, this survey is the starting point for further research.

Electronic Discussion Groups. Brookfield (1986) describes informal learning networks as "groups of adults united by some common concern, some shared status, or some agreed-upon purpose that exchange information, ideas, skills, and knowledge among members and perform a number of functions having to do with problem solving and the creation of new modes of practice or new forms of knowledge" (p. 151). Electronic Discussion Groups (EDGs) are informal learning networks conducted by electronic means via computer networks (Collins, 1995). Anyone having access and the capability to use electronic mail can subscribe to and participate in public electronic discussion groups.

As illustrated below (see Figure 1), electronic discussion groups may be seen as a subset of computer conferencing, which in turn is a subset of computer mediated communication (Santoro, 1995). Electronic discussion groups serve many purposes for their subscribers. Computer mediated communication may in turn be seen as a subset of electronic discourse (Foertsch, 1995).

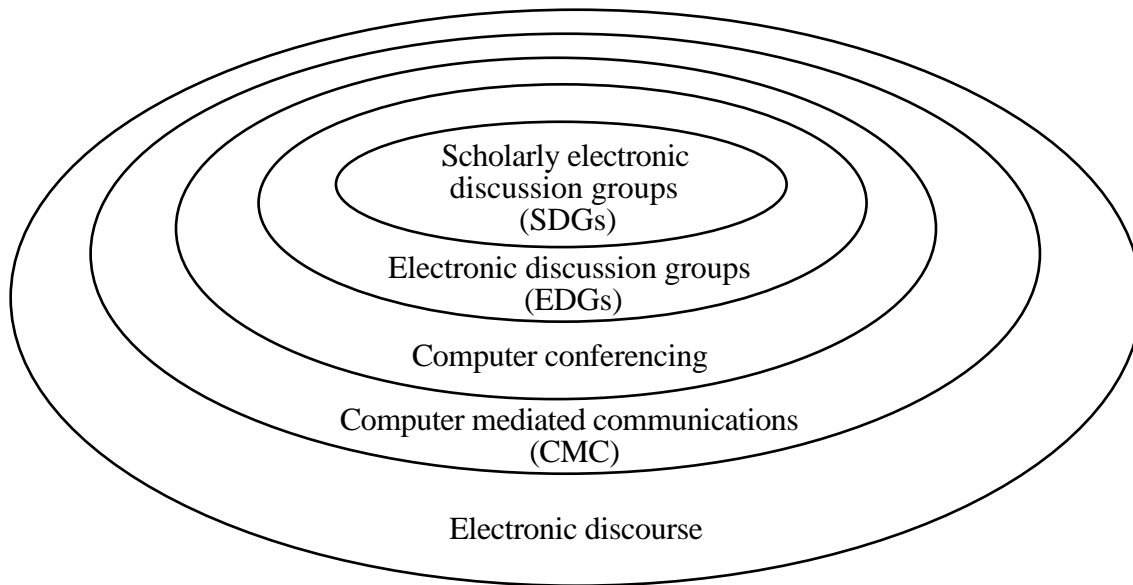
Electronic discussion lists are sometimes referred to as "listserv lists" but the term **LISTSERV** specifically refers to the most popular mailing list management program, **LISTSERV**, written by Eric Thomas, in general use since 1986. This started as an IBM mainframe application but has now been ported to most platforms (See <http://www.lsoft.com>).

According to December, 1996 Internet statistics, there are over 31,000 electronic discussion groups worldwide that were managed by **LISTSERV** software, with over 11,000,000 subscribers world-wide. This does not count the plethora of EDGs managed by other mailing list programs (listproc, majordomo, etc.). In all, Thomas estimates (CataList Home Page, December 1996), that there may be as many as 50,000 public and private EDGs in existence, managed by **LISTSERV** alone.

Distribution level. Electronic discussion groups can be set up on local or campus networks, or globally on networks on the Internet (Berge, 1994). Local electronic discussion groups may compliment other forms of informal scholarly networks, such as interest groups that meet, or have met, in person (Clark, 1995), as well as playing an important role in computer conferencing associated with college or university courses.

While there are over a dozen distance education related lists, the DEOS family of discussion lists and the CREAD list are by far the largest public mailing lists specifically devoted to distance education. DEOSNEWS is a list solely for the distribution of a monthly electronic journal, usually a single article or conference presentation. DEOS-L and DEOS-R are moderated discussion lists distributing up to 40 messages per day.

Figure 1. SUBSETS OF ELECTRONIC DISCOURSE



EDGs and Distance Education. The development of electronic discussion groups has played an important role in the growth and development of the field of distance education. Their staying power and growth during the general transition to a new web-based technological environment on the Internet illustrates the continued strength of e-mail as a ubiquitous Internet function. Many subscribers seem to prefer the 'in your face' nature of discussion delivered to their own mailboxes rather than having to remember to open another software program or two (a news reader and/or a web browser) in order to read centrally archived messages.

The development and evolution of these distance education-oriented EDGs says much about the development and evolution of the field overall. Over the years, subscribers have come to include many K-12 and two-year educators, as well as participants from for-profit and not-for-profit corporations. Participation and dialogue, unbounded by time and place constraints, may have helped popularize the new educational paradigm of distance education via computer, video and other methods without requirements for "seat time" or other forms of parallelism with conventional methods of instruction. Participation in EDGs also is a way of learning how to use an EDG for conducting discussions in other formal and informal groups.

Scholarly discussion groups (SDGs) and EDGs. In terms of the functions it serves, scholarly communication has long been one of the major functions of computer mediated communication, and scholarly discussion groups (SDGs) one of the most important functions of electronic discussion groups. However, as Harrison and Stephen (1996) point out, "Academic electronic conferences vary widely in content, structure, and the extent to which substantial academic work is accomplished. Some conferences are free flowing and general forums, in which any topic may be

introduced and pursued if there is sufficient interest ... Other conferences feature "focused and directed scholarly discourse (16-17)."

Evolution of DEOS Mailing Lists.

DEOS, the Distance Education Online Symposium, was established in 1988 at the American Center for the Study of Distance Education, The Pennsylvania State University, with a grant from the Annenberg/CPB Project. Morten F. Paulsen (<http://www.nki.no/~morten/>), then an ACSDE graduate assistant, was the organizer and first moderator. Moderation of the list passed through the hands of several graduate assistants before the first author became a volunteer moderator for Summer, 1993. The moderator's position evolved into a quarter-time (10 hours/week) paid student position in 1994. When Collins left Penn State, the moderation of the list was professionalized and became part of the work responsibilities of an ACSDE staff member, Roland Isnor.

The growth of DEOS-L and DEOSNEWS parallels that in the field, and undoubtedly evidences the work of DEOS-L moderators and DEOSNEWS editors to create a sense of online virtual community and to meet the information needs of a growing distance education community. The DEOS lists have always been moderated, and will remain so for the foreseeable future. This ensures a high "signal-to-noise" ratio -- that all postings to the lists are related in some way to Distance Education and that discussion is conducted in a collegial manner.

The subscribership over time of DEOSNEWS, which has been edited by Melody Thompson of Pennsylvania State University throughout most of its existence, helps illustrate the phenomenal rise of DEOS mailing lists (see Figure 2).

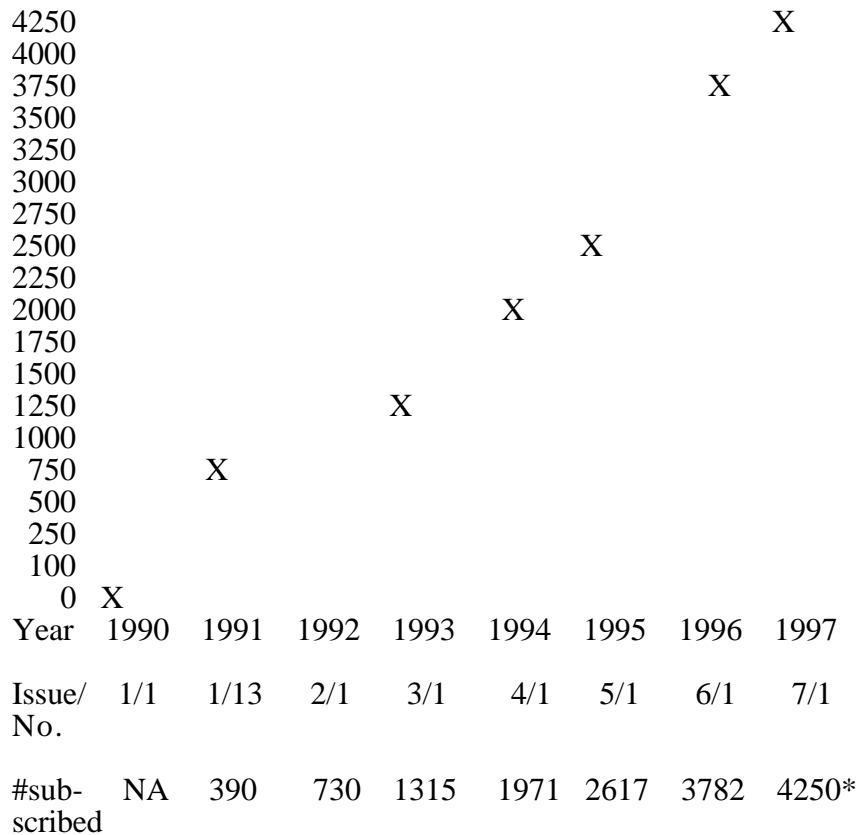
Membership in DEOS-L has increased considerably over the past three years as many new people and institutions have entered the field of distance education. Always a generally oriented discussion list, DEOS-L has not focused greatly on discussions about theory or research in the field of distance education but has become a place for practitioners to look for and to share information, resources and practical tips. Postings that make announcements of general interest, provide valuable technical or procedural information, advertise faculty or staff positions in the field or state a position for others to react to, without much interaction, predominate. While there is a very small group of DEOS-L subscribers that carry on extended conversations amongst themselves, the perceived opportunity for most members to engage in discussion on any topic, including research, has decreased as the sheer volume of messages from the list have risen.

The desire to maintain DEOS-L as a generalized list, the need for a venue to focus on theory and scholarship, and the perceived need for stronger emphasis on discussion of distance education research among members of the distance education community, led, in early 1996, to the creation of a new discussion list, DEOS-R, to compliment DEOS-L. DEOS-L still continued to grow at a steady pace after the creation of DEOS-R in early 1996.

In September 1995, an international Advisory Board was formed for DEOS-R. DEOS-R began as DERR-L (Distance Education Research Roundtable). On February 4, 1996, a message announcing the birth of DEOS-R was posted to DERR-L, the Distance Education Research Roundtable. An excerpt follows, somewhat rearranged to afford a better chronology::

DEOS-R, the Distance Education Online Research listserv, is a new listserv co-sponsored by the American Center for the Study of Distance Education (ACSDE) and Central Michigan University (CMU).

DEOS-R "subsumes" DERR-L. Existing DERR-L subscribers were automatically transferred to DEOS-R, with an explanation of the change in the discussion group's name.

Figure 2. DEOSNEWS SUBSCRIBERSHIP, 1991-1996


* Estimated from 4209 subscribers, 12/9/96, CataList.

Initial participation in DEOS-R included (a) presenters and attendees at the Research Symposium held from May 18-21, 1995 at the Pennsylvania State University, and (b) initial participants in the DERR-L listserv begun following the August 1994 DE conference at the University of Wisconsin-Madison.

The purpose of DEOS-R is to provide a forum for scholarly exchange on distance education research. An international Advisory Board has been appointed by the ACSDE to assist DEOS-R to define its niche in the field and on the Internet.

The large volume of postings to DEOS-L shows the tremendous interest in the field, and the value of that forum for those seeking technical or general information about distance education. For many persons, DEOS-L is their first and primary access point to the distance education community.

DEOS-R will provide a forum for scholars in the field of distance education who are specifically interested in or engaged in research in distance education to meet and share with their peers undistracted by the general commentary and questions appearing on DEOS-L.

APPROPRIATE POSTINGS

Appropriate DEOS-R postings contain or promote:

- (1) discussion of past, present or future research studies in distance learning; and
- (2) questions for theses, dissertations, external or internal studies or reports, and grant applications related to distance learning, and answers to those questions.

(Posted by Listowner, C. Richardson, 2/4/96)

By the end of 1996, DEOS-R subscribership had increased nearly tenfold from its earliest DERR-L days, reaching 331 subscribers in December 1996, making it the second-largest public EDG after DEOS-L.

From the beginning, there has been an important international component to EDG activity in distance learning. While DEOS-L reflects the mission of the ACSDE in concentrating mainly on North America, DEOS-R adds substantially to the international and research-based component of the DEOS service without adding to the already heavy volume of message traffic on DEOS-L. In this sense, it can be seen as offering significant opportunities for international cooperation.

Future of EDGs

Harasim (1996) asserts that "Online education is part of an educational paradigm shift and provides an approach that emphasizes international connectivities and engenders new ways of working, studying, and problem solving" (p. 213).

Toward a hypermedium for electronic discourse. As Derycke (1992) notes, "Computer mediated communication can have a central place in the development of the open learning hypermedium (p. 222). He lends support to the concept of hypermedium described by Gaines and Vickers (1988) as "computer-supported, open-ended access to a diversity of media that offer many possibilities for creative thinking, problem solving and networking by individuals and dispersed groups (p. 14)." Clearly, "... we are now beginning to recognize how arbitrary indeed are the print-based conventions that have structured our view of the academic world." (Harrison and Stephen, 1996, p. 31). Undoubtedly, the World Wide Web (and its successors) will play a key role in the development of this hypermedium.

Deryck (1992) proposes what he calls "Seven Issues for the Next Generation of Educational CMC Systems"

- Theoretical: developing a strong background in theory for new CMC systems
 - Multimedia: successfully integrating different media such as print, graphics and audio
 - Navigation: giving context to multiple threads without information overload
 - Group Structuring: in relation to pedagogical goals, participant characteristics
 - Textual Conversation: how best to conduct a dialogue via textual messages
 - Specialization: providing good tools for use in specialized CMC activities
 - Integration: integrating tools in an interface, integrating types of communication
- (pp. 219-221)

Holden and Wedman (1993), in an online Delphi study of 35 college faculty who actively used CMC in teaching, obtained high consensus on several obstacles to future use of instructional CMC applications, including "resistant faculty attitudes, lack of time and resources, and lack of nonverbal cues in e-mail (p. 12)." Certainly, these are also issues for the future of EDGs.

II. Establishing the Role of DEOS-R in Scholarly Communication and Research

The goals of DEOS-R include increased participation by researchers in the field, increased participation by the international distance education community in DEOS activities, and significant new activity in published research resulting from the activities of the listserv.

The need to establish the role of DEOS-R as a scholarly discussion group led to decisions concerning web-based enhancements in its format. The web offers new opportunities both for learning and scholarly dialogue. As Kerka (1996) notes, "Multimedia/hypermedia contexts such as the World Wide Web support constructivist approaches to learning (p.1)." In this new format, online short conferences focusing on specific research topics have been offered by, for instance, the University of Maryland, University College in conjunction with the International University Consortium, with moderator and participant resources related to discussion of the topic posted to the World Wide Web.

For example, scholarly conferences hosted by DEOS-R a highly specific topic for a set period might follow the model cited by Harrison and Stephen (1996), by being "... moderated by an individual who subsequently shapes the content of the discussion into a summarizing article that is distributed to participants for revision before publication in the companion electronic journal (p. 17)." "In traditional scholarship," these authors say, "a formal artificial type of dialogue is carried out through a series of extended monological texts ... texts produced through online conferences reflect a more authentic scholarly dialogue (p. 17)."

III. Planned and Ongoing Research: DEOS EDGs and Scholarly Communication

A research agenda for DEOS-R should include study of the scholarly impact of distance education EDGs, and research intended to build on other efforts to develop a research agenda for the field as a whole.

Research on EDG Scholarly Impact Surveys conducted by Collins (1994) and Collins and Thompson (1994) mentioned above offer a starting point for research on the scholarly impact of EDGs on distance education. Sample survey instruments given by McClure and Lopata (1996, p. 16-19) are quite useful in formulating questions about the impact of EDGs on distance education research. Their survey questions, about use of academic networks in general, include:

"Has the network affected the way your research and write a paper?"

"Has the network affected the way you conduct a research project?"

"Has use of the network affected the quality of the teaching material you use in the classroom?"

"Do you use the network for teaching preparation?"

"Has the network affected your professional development?"

While good qualitative data on the nature of active participants who self-select can be gathered online, it is challenging to conduct research online in ways that eliminate self-selection. Luckily, in topics such as developing a research agenda, specific members of a smaller group can be identified, such as recently published authors and recent thesis and dissertation completers. For more general studies of EDG populations, comparative studies conducted via traditional methods such as mail surveys and telephone interviews might be contrasted with online survey methods in a combined research design.

Research on the scholarly impact of DEOS-R and other lists might include qualitative studies of the authoring process, from ideas to finished document. Online general discussion can also be studied in terms of the contribution it makes.

Research agenda for the field Establishing a research agenda for distance education has been a continual concern for the ACSDE and for leaders in the field. DEOS-R came about in part through the second of two symposiums, held in 1991 and 1995 at Pennsylvania State University, to bring together researchers in the field. Clearly, the agenda for the field must be quite diverse, and include research into many topics, which might be grouped into the more general areas of policy and administration, instruction, course design, and learners and learning (Moore, 1995).

Ways in which DEOS-R might assist in framing such an agenda include online conferences centering on specific topics in a research subfield or the field as a whole. These conferences might be asynchronous, synchronous, or a combination of the two, including discussion or more formal exchanges of views around a specific topic or set position paper or papers. Opinions about specific research methodologies might also be shared.

IV. Discussion: Participant Perspectives -- Role of EDGs in the Field and in Scholarly Communication & Research

A substantial portion of the conference presentation will be devoted to participant perspectives. As the panel discusses issues following their structured short presentations, attendees will be asked for input on a series of questions, including:

1. What makes a discussion list successful? A scholarly discussion list?
2. Will there be a need for text-intensive online discussion lists in five years? Or will graphical and/or video interfaces completely replace them?
3. Have you used a discussion list to do collaborative research projects? If the discussion list had not been available, how would the research process have been affected?
4. Is good, scholarly discussion possible on large lists (1000 or more subscribers)? On small lists (50 or fewer subscribers)?
6. What do you think the role of the list moderator should be in a scholarly discussion list?
7. What are some ways of framing and stimulating online scholarly discussion in an international context?

REFERENCES

Print Resources Cited

- Berge, Z. L. (1994). "Electronic discussion groups." *Communication Education*, 43(2), 102-111.
- Clark, T. (1995). "Starting a Distance Education Interest Group: Enhancing Distance Teaching Through Internal Collegial Networks." In *Proceedings*, 11th Annual Conference on Distance Teaching and Learning (Madison, WI, August 9-11, 1995), 33-37.
- Collins, M. (October, 1994). "Results of Readership Survey." *Interpersonal Computing and Technology Journal* (IPCT-J@listserv.georgetown.edu). Archived at: <http://star.ucc.nau.edu/~mauri/moderators.html>
- Collins, M., & Thompson, M. (November, 1994). "DEOSNEWS Readership Survey, November 1994." DEOSNEWS, 4 (11). Distance Education Online Symposium, American Center for the Study of Distance Education. Archived at: listserv@psuvm.psu.edu GET DEOSNEWS 94-0056
- Collins, M. (1995). "Networks and Networking." In Z. L. Berge & M. P. Collins, *Computer-Mediated Communication and the Online Classroom. Vol. III. Distance Learning*. Cresskill, NJ: Hampton Press, 179-190.
- Derycke, A. (1992). "Toward a Hypermedium for Collaborative Learning?" In A. R. Kaye, (Ed.). *Collaborative Learning Through Computer Conferencing*. New York: Springer-Verlag, 211-224.
- Foertsch, Julie. (March-April 1995). "The Impact of Electronic Networks on Scholarly Communication: Avenues for Research." *Discourse Processes*. (19)2, 301-328.
- Gaines, B., & Vickers, J.N. (1988). "Hypermedia Design." In *Proceedings*, RIAO '88 Conference (March 1988, MIT, MA), 14-23.
- Harasim, L. "Online Education: The Future." (1996). In *Computer Networking and Scholarly Communication in the Twenty-First Century University*. SUNY Series in Computer-Mediated Communication. T. M. Harrison & T. Stephen, (Eds.). Albany, NY: State University of New York Press, 203-214.
- Harasim, L., Hiltz, S. R., Teles, L., & Turoff, M. (1995). *Learning Networks: A Field Guide to Teaching and Learning Online*. Cambridge, MA: The MIT Press.
- Harrison, T.M., & Stephen, T. (1996). "Computer Networking, Communication, and Scholarship." In *Computer Networking and Scholarly Communication in the Twenty-First Century University*. SUNY Series in Computer-Mediated Communication. T. M. Harrison & T. Stephen, (Eds.). Albany, NY: State University of New York Press, 3-36.
- Holden, M. C., & J. F. Wedman. "Future Issues of Computer-Mediated Communication: The Results of a Delphi Study." (1993). *Educational Technology Research and Development*, 41(4), 5-24.
- Kerka, S. (1996). *Distance Learning, the Internet, and the World Wide Web*. ERIC Digest. ERIC ED 395 214.

McClure, C. R., & Lopata, C. L. (1996). *Assessing the Academic Networked Environment: Strategies and Options*. ERIC ED 393 456. Washington, DC: Coalition for Networked Information.

Moore, M. G. (1995). "The 1995 Distance Education Research Symposium: A Research Agenda." Editorial. *American Journal of Distance Education*, (9)2, 1-6.

Rojo, A. (1995). *Participation in Scholarly Electronic Forums*. Ph.D. thesis, University of Toronto, 1995. Web address: <http://www.oise.on.ca/~arojo/tabcont.html>

Santoro, G. M. (1995) What is Computer-mediated Communication? In In Z. L. Berge and M. P. Collins, *Computer-Mediated Communication and the Online Classroom. Vol. I, Overview and Perspectives*. Creskill, NJ: Hampton Press.

Internet Resources Consulted

Adult Education Network (AEDNET) home page/New Horizons archive
<http://www.nova.edu/Inter-Links/education/aednet.html>

Collins, M. (1996). *The Moderator's Home Page. Resources for Moderators of Online Discussion*. December 1996 update. <http://star.ucc.nau.edu/~mauri/moderators.html>

Kovacs, D., & Others. (1994). *Directory of Scholarly Electronic Conferences*. 8th Revision, March 1994. Now the *Directory of Scholarly and Professional E-conferences*, revised twice a year. Current address: <http://n2h2.com/KOVACS/>

DEOS, the Distance Education Online Symposium, consists of DEOSNEWS, DEOS-L, and DEOS-R.

DEOSNEWS is a monthly, international, electronic journal distributed by the American Center for the Study of Distance Education at The Pennsylvania State University.

DEOS-L and DEOS-R are discussion groups.

Subscribe to DEOS-L (or in a similar fashion, DEOSNEWS) by sending an email message to LISTSERV@PSUVM.PSU.EDU (or to DEOS-R by sending an email message to LISTSERV@CMUVM.BITNET) with the following message in the body:

subscribe DEOS-L your name
example: subscribe DEOS-L John Doe

DEOSNEWS archives. See the DEOSNEWS Archive at Ohio State
<gopher://gopher.acs.ohio-state.edu:70/11/Journals%20%26%20Newsletters/OSU%20Libraries%27%20Electronic%20Serials/DEOSNEWS>

DEOS-L archives. See the Distance Learning Resource Network Page.
<http://www.fwl.org/edtech/dlrn.html>

DEOS-R archives. DEOS-R is not currently archived externally, but like DEOS-L and DEOSNEWS, it is automatically archived by the Listserv. You can get a list of the available archive files by sending an "INDEX DEOS-R" (or "INDEX DEOS-L" or "INDEX DEOSNEWS") command to the full listserv address, and following the directions returned via email.

Thomas, E. (1996). *CataList, the catalog of LISTSERV® lists*. December 9, 1996 update. L-Soft international, Inc. <http://www.lsoft.com>