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Organizing and Facilitating Telecollaborative Projects

by Judi Harris

Are you currently planning an online educational project, or do you hope to do so soon? If so, there is advice from experienced project facilitators that you may want to consider, and Internet-based resources that you may want to access to assist your efforts.

Step One: Choose the Curricular Goal(s)

Access to telecomputing facilities in most schools is limited, at best. Therefore, when designing an online activity, it is very important to be sure that the student learning goals that you specify for the activity are:

- tied directly to the curriculum.
- could not be accomplished at all, or as well, using more traditional teaching/learning tools.

By assuring these two aspects of the goals toward which your students will be working, you will begin to ensure maximal time-efficiency and cost- effectiveness of everyone's online efforts.

When choosing the curricularly-based goals for an online activity, it is advisable to think not only about what students will be learning as they participate (the content goals), but also about what they will be doing online, and whether that activity matches one of the process goals that you have specified. Most electronic-mail-based projects, for example, require participants to write to an audience of their peers. It is advisable to ask yourself whether such authentic writing goals are among those in the curriculum that you would have students address by participating in the online activity that you are planning.

Step Two: Choose the Activity's Structure

There are a number of different ways to organize productive online projects. I have described these as "activity structures," or models for designing educational telecomputing activities, in previous "Mining the Internet" columns (Harris, 1994a; Harris, 1994b; Harris, 1994c) and in Way of the Ferret: Finding Educational Resources on the Internet (Harris, 1994d). These structures can be used at many grade levels and in any curricular area, and were conceptualized by reviewing hundreds of successful online projects that classroom teachers created, tested, and shared via the Internet. Effective models for structuring online projects are often unfamiliar to teachers who are just beginning to use Internet-based tools for instructional purposes, because the asynchronous (not-simultaneous-in-time), widely-distributed, text-only, and quick-turnaround attributes of telecommunications media create a unique context for teaching and learning. This is why it is helpful to review possible activity structures and choose or create the most appropriate one at this point in the planning process.

Sixteen activity structures have been identified to date. They fall, in groups of five or six, into three structure genres.

- Interpersonal Exchanges
 1. [keypals](#)
 2. [global classrooms](#)
 3. [electronic appearances](#)
 4. [electronic mentoring](#)
 5. [impersonations](#)
- Information Collections
 1. [information exchanges](#)
 2. [database creation](#)
 3. [electronic publishing](#)
 4. [tele-fieldtrips](#)
 5. [pooled data analysis](#)
- Problem-Solving Projects
 1. [information searches](#)
 2. [parallel problem-solving](#)
 3. electronic process writing
 4. [serial creations](#)
 5. [simulations](#)
 6. [social action projects](#)

New project structures emerge as more teachers and students learn to use the Internet to assist their teaching and learning. This list of structures will be updated and expanded, with specific new activity examples, in the March, April, and May 1995 "Mining the Internet" columns.

Step Three: Explore Examples of Other Online Projects

A good example is often worth a hundred hours of planning time. Once you have chosen the activity's

structure, it may be helpful to you to see how other teachers have organized and described projects that have been completed. There are a number of "treasure troves" of such project descriptions freely accessible on the Internet. Many are easily reviewed online using Gopher tools.

The following Gophers contain some of the best collections of precollege online activity descriptions, through which you can freely browse. If you have Gopher software running on the server that houses your Internet account, all you have to do to access these sites is to go to the system prompt in your account and type:

gopher server.domain.edu

(where server.domain.edu is one of the Gopher addresses listed below).

If you don't have Gopher software available for you to use in this way, then go to the system prompt in your account and type:

telnet server.domain.edu

...to establish an interactive connection to the Gopher that you have chosen. When asked for a login and/or password, use gopher. Please note that not all Gophers will be available using this method at all times.

Gophers With Information on Educational Telecomputing Activities

- Armadillo Gopher: chico.rice.edu:1170
- Big Sky Telegraph K-12 Lesson Plans: bvsd.k12.co.us
- Consortium for School Networking Gopher: cosn.org
- FrEdMail Foundation Gopher: gopher.cerf.net
- Intercultural E-Mail Classroom Connections: gopher.stolaf.edu
- K12Net Gopher: woonext.dsrd.ornl.gov
- KIDLINK Gopher: kids.ccit.duq.edu
- Learning Resources Server (U. of Illinois): lrs.ed.uiuc.edu
- NASA's Quest Gopher: quest.arc.nasa.gov
- National School Network Testbed Gopher: copernicus.bbn.com
- NYSERNet's Gopher: nysernet.org
- Princeton Regional School District Gopher: gopher.prs.k12.nj.us
- Ralph Bunche School's Gopher: ralphbunche.rbs.edu
- SchoolNet's Gopher: ernest.ccs.carleton.ca
- Teacher Education Internet Server: state.virginia.edu
- Technology Infusion Into the Curric. (Nebraska): sjuvm.stjohns.edu
- USCD Internet Lesson Plans: ec.sdcs.k12.ca.us

Step Four: Determine the Details of Your Project

Folks associated with the Global Schoolhouse Project, once called "FrEdMail," have perhaps the most experience helping teachers to design, organize, and carry out collaborative educational telecomputing projects. They shared some of their best advice in a helpful article published in TCT almost five years ago (Rogers, Andres, Jacks, & Clausen, 1990). In this article, they made it very clear that a detailed, specifically-stated project description is essential for success. They suggested that the following elements be included in every telecomputing project description and plan:

- The project's title
- The project's educational purpose(s)
- The organizer/contact person for the project's name and e-mail address
- The precollege curricular areas that the project addresses
- The approximate grade levels for which the project is designed
- The number of collaborators that will be accepted
- A summary of the project's plan
- Directions for registration, or joining the project
- A detailed timeline for the project, including specific tasks to be completed and all interim deadlines
- Detailed, specifically-stated, and numbered procedures for participation in the project
- A sample of student work that the project will generate
- How the project will end, including plans for how project results will be shared with all participants

Waugh, Levin, and Smith (1994) suggest that grade levels or age groups not be specified initially during project planning, since cross-age communication can be very beneficial to students. They also recommend that timelines be kept somewhat flexible, to accommodate the inevitable scheduling conflict or technical failure. Finally, they suggest planning in such a way as to encourage distributed project ownership, focusing upon specific, rather than general, topics for study.

Margaret Riel, facilitator for the many successful A, T & T "Learning Circle" online projects, recommends that teachers plan to network with more than one or two other classrooms; ideally, with five to ten classes on an extended project. In this way, it is easier to take maximal advantage of the cultural or regional diversity of all of the participants, and even if several classes encounter network access difficulties, fruitful communication can continue. She points out that it is important to make sure that the amount and scope of information requested of each participating class be reasonable. Margaret also suggests that network projects be planned so that they fit well into the larger framework of classroom activity, and that the information created as a result of telecollaboration be of interest to a wide local audience of other students, teachers, parents, and other community members. Therefore, when the project is complete, the fruits of the students' and teachers' labors can be proudly shared, and community support for educational networking efforts be garnered or strengthened.

Step Five: Invite Telecollaborators

Once you have written a detailed file of project specifics, and uploaded it to your Internet account's filespace, making it ready to include in an e-mail note to each interested party who will contact you,

it is time to write a brief project description to post in public discussion areas that are frequented by other K-12 teachers with Internet access. Waugh, Levin, and Smith (1994) suggest that this brief file be used to advertise the availability of the project, and make an offer to send more details to any interested parties who send private e-mail requesting them. My experience organizing online projects has confirmed the effectiveness of this method, especially since the Internet addresses of interested teachers can be retained for use later when organizing other projects.

There are several electronic mail discussion lists, or LISTSERVs, that are particularly good places to both learn about other teachers' new projects and make information about yours available. If you are very new to educational telecomputing, and would prefer to join in on a project that another teacher has organized before attempting to design your own, subscribe to one of the lists below. Please be warned, though, that the e-mail generated by most of these lists is frequent (many messages each day). If you do decide to subscribe, make sure that you log into your account every day to read and delete your messages. If you do not have the time to do this, and computer conferencing/electronic bulletin board/newsgroup facilities are provided in your account, consider contacting the system manager and requesting that the distributions to one or more of these lists be fed into a local newsgroup that anyone with an account on your local system be able to access.

The first address given for each of the lists below is the address to which postings to be distributed are sent. The second address given is the one used only for automatic administrative functions, such as registering to receive the list's messages as they are posted (done using the subscribe or sub command), or ending your registration (done using the signoff command). If you do not have enough time to sift through possibly many messages each day, then you might want to consider posting the brief description of your project to the list without joining it first.

Discussion Lists With Educational Telecomputing Project Information

- Intercultural E-Mail Classroom Connections: iecc@stolaf.edu To subscribe, send a message to: iecc-request@stolaf.edu
In the text of the message, type: subscribe
- Projects in the Intercultural E-Mail Classroom: iecc-projects@stolaf.edu
To subscribe, send a message to: iecc-projects-request@stolaf.edu
In the text of the message, type: subscribe
- KIDLINK Projects: kidproj@vm1.nodak.edu
To subscribe, send a message to: listserv@vm1.nodak.edu
In the text of the message, type only: sub kidproj Your Name
- KIDLINK Project Forum: kidforum@vm1.nodak.edu
To subscribe, send a message to: listserv@vm1.nodak.edu
In the text of the message, type only: sub kidforum Your Name
- Kidsphere Discussion Group for Adults: kidsphere@vms.cis.pitt.edu
To join, send a message to: joinkids@vms.cis.pitt.edu
In the text of the message, type: subscribe kidsphere
- Kidsphere Discussion Group for Kids: kids@vms.cis.pitt.edu
To join, send a message to: joinkids@vms.cis.pitt.edu
In the text of the message, type: subscribe kids
- Penpal Requests Discussion Group: penpal-L@unccvm.uncc.edu

To subscribe, send a message to: listserv@unccvm.uncc.edu

In the text of the message, type only: sub penpal-L Your Name

Please be sure, whenever posting calls for telecollaborators to discussion lists, that you ask interested teachers to respond to you privately, using the Internet address that you supply, rather than replying to the list itself. This will decrease the number of unwanted messages received by the list's members.

Rogers, Andres, Jacks, and Clausen (1990) suggest that you "try out" a new project idea with a small group of close colleagues first, before opening it up to the larger online community. In this way, the operational fine points of the plan can be uncovered with relatively little embarrassment, and in small scale.

A distribution list of announcements of Global Schoolhouse/FrEdMail projects that is "read only" (a list to which you cannot post information about your project, unless you are working on the FrEdMail system), can be joined by sending personal electronic mail to Al Rogers at: hilites@bonita.cerf.fred.org. If you choose to do this, please remember that you will be talking with a person, not a computer program. Al has done much to make educational telecomputing projects accessible to and successful for teachers and students all over the world, so if you message him, this might be a good time to thank him for that labor of love.

Step Six: Form the Telecollaborative Group

As the excited responses from potential telecollaborators come to your e-mailbox, send each, as quickly as possible, the long and detailed file that you prepared in advance that tells all about the project. Be sure that the file specifies procedures for how interested teachers can register to participate in the project, a maximum number of classes that can take part, and the deadline for requesting participation by return e-mail.

Save the information from each teacher's registration message in a file in your Internet account that you will download later. The registration should include the teacher's name, full Internet address, school name, school location, school telephone number (to use only in "emergencies"), and the number and grade level(s)/age group(s) of the student(s) who will be involved in the project. Respond to each teacher's request for registration as quickly as possible, possibly using another prewritten file that has additional information about how to begin the project. Waugh, Levin, and Smith (1994) suggest that this time be used to advocate distributed project ownership by encouraging participating teachers to collaborate to plan the finer details of the project.

If more teachers want to register for the project than you think that you can handle, message each teacher who won't be able to join in with a friendly, polite apology. Also, if you think that you will do the same or a similar project in the future, you might want to tell them that you will retain their Internet address to use as part of a distribution list later when you announce the availability of the project for registration again.

Step Seven: Communicate!

Online communication is different from most other forms of communication in significant ways. It is asynchronous, primarily text-based, widely geographically and temporally (time-zone) distributed, and fast. Therefore, it requires somewhat different communications techniques if it is to be used for maximal educational benefit by students and teachers.

Since each activity structure requires a slightly different type and sequence of online interaction, only general suggestions for facilitating online discussion will be shared here. You will undoubtedly discover and share more as you communicate with the other teachers and students online.

Waugh, Levin, and Smith (1994) suggest that you:

- Form a distribution list of all project participants, so that periodic reports of progress and materials sent to meet interim deadlines are easily shared and filed.
- Sign all of your e-mail with all of the names of the people contributing to the message. I would add that including the school name and location is helpful, too.
- If there is discussion taking place online, before you add your perspective to the conversation, provide a brief synopsis of the discussion to date, so that all readers clearly understand the context in which you are asking your question or making your comment.
- Be willing to share what you know (especially in terms of technical assistance) freely with newcomers, who can often feel intimidated when first online.
- Focus the discussions carefully upon the pre-selected topics for collaborative study.
- Use short private messages to keep communications alive, such as:
 - "return receipt messages," which are sent to team members if you are busy, to tell them that you have received their message, and will answer it soon.
 - "cheerleader messages," which recognize and praise exceptional efforts.
 - "ping messages," which ask participants who have not posted something recently to the group whether they are still participating.
 - "thank-you messages," which help to encourage participation when sent as interim expressions of appreciation.

An important addition to this list is the use of "reminder messages," which serve to remind participants of approaching interim deadlines. These messages can be very helpful in assuring a project's success within typically constrained school week schedules.

Rogers, et. al (1990) suggest that you involve students, whenever possible, in the ongoing facilitation of the project. I would add that involving parent volunteers, if possible, is a good idea. Keeping administrators, PTA members, and local news media informed of the project's existence and the students' accomplishments is also well worth the time spent doing "public relations," considering the possibility of future project support and additional Internet access points at your school.

Step Eight: Create Closure

All of the authors mentioned in this article suggest that telecomputing projects end with a final, tangible product (such as a report, public presentation, short videotape, display, etc.) that is firmly

scheduled, completed, and shared with all participants, then made available to a larger, interested community. The importance of this suggestion cannot be overstated. After all of the planning, coordination, collaboration, and hard work that project participants have expended, and all of the rich learning that took place, opportunities should be available for participants and their associates outside of the project group to marvel at what has been accomplished. Also, if plans for and results of the project can be made anonymously available through a file archive or Gopher online, the project could serve to inform other teachers' design and implementation efforts in the future.

If there is time available for post-project communication, students and teachers often enjoy informally sharing perspectives upon and memories of different stages in the online exchange with each other. It is also important to remember to allow time and opportunity for everyone to say "good-bye," "thank you," and perhaps begin to speak about possibilities of working together in the future.

An Ethiopian proverb metaphorically illustrates the power that can be expressed among telecollaborators who follow these eight steps to organizing and facilitating educational telecomputing activities. The proverb says:

When spider webs unite, they can tie up a lion.

Here's hoping that these suggestions will help you and your students to start spinning.

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Other "Mining the Internet" columns are available on the [Learning Resource Server](#) at the College of Education, University of Illinois, Urbana-Champaign.