Supporting the Learning Community
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The National Educational Technology Standards for Students state that "our educational system must produce technology capable kids." On page 4 of the NETS Brochure (www.iste.org), technology can enable students to become:

- Capable information technology users
- Information seekers, analyzers, and evaluators
- Problem solvers and decision-makers
- Creative and effective users of technology
- Communicators, collaborators, publishers ,and producers
- As well as informed, responsible, and contributing citizens.

Will that happen in your classroom? With the lecture method or limited access to technology? How does the classroom environment change to support that type of learning? How do technology directors and administrators facilitate changes?

Thomas Carroll, US Dept of Education, spoke to groups in Atlanta at NECC and the Eastern Meeting of NCREL and spoke of the collaborative learning environment. In his address, he stressed that the roles of teachers needed to shift so that they would model expert learning. He stressed that the expert learner has replaced both the sage on the stage and the guide on the side. Teachers and students learn together.

The standards-based movement involves teamwork and project-based learning. Online projects such as Classroom Connects' Real-time learning project on Ancient Civilizations (www.classroom.com) helped to move teachers to test Internet resources in depth. Teachers had access to lesson plans, ongoing assessment, peer assessment practices, portfolio assessments and culminating activities. Students served as mystery seekers, writers, and had connected activities. Students and teachers worked on collecting artifacts and describing significant artifacts of a civilization. They used higher order thinking to categorize and analyze entries. Teachers and students conduct coaching and interventions. To achieve all of the NETS goals, classrooms may need to involve community members and parents. Email, forums, and video conferences enrich the learning. Students have opportunities to research history and to talk to experts in areas of the world (Museums). The Global School House also provided schools with online projects of high quality.

Even though they moved educators forward, these projects required time and much energy. Access to the Internet with the proper time to match schedules caused problems. Students need a virtual space to work outside of the school day. They wanted to work at home, at the library or at friend's homes. Communities needed to form since some students had great resources, but others had almost no time or access. Teachers expressed interest in tools that would promote dialog and access from home. Research indicated that a community builds when interactions and communications occur easily. Members serve as designers, builders, participants, observers and evaluators.

Shortly thereafter, pioneering teachers began to use newsletters to welcome students to an activity. Parents frequently raised concerns about the safety of publishing to the web. So newsletters and web sites helped temporarily, but caused faculty members to demand

software/space for projects that would mirror community life in higher education (Apple Computer, Provocation '98).

The organizer of the community (the teacher) needs to articulate the values and expectations. As the members begin to form the community, they benefit from a welcoming letter that indicated values, responsibilities, and learners' rights. In particular with a K-12 community, teachers, parents, administrators, school directors, and other community members are concerned about the following:
Values:

- Safety
- Clean language
- Freedom from prejudice

Responsibilities:

- Assist other learners
- Be resourceful and sociable
- Follow through on what you start
- Provide feedback to others
- Serve the community

Learner Rights

- Access this environment from home, school or library
- Negotiate assessment
- Seek help
- Be challenged
- Build private areas
- Have fun in a safe environment

(http://www.research.att.com/~vj/edu/aaaPaper.html)

Students function in a learning environment when they participate in the guidance and control of the learning process. Communication technologies support this type of interaction and environment. Roles of group members may be defined or may evolve from the whole group. Groups become communities when interaction is sustained long enough to form a set of habits. Members of the group tend to depend upon each other.

Dynamic learning communities (Wilson and Ryder, 1995) are groups of people who form a community with a commitment to and sharing of new knowledge. They have flexible activities that are revised due to high levels of conversations, interaction and collaboration. The community has a shared goal, project or problem that the team must achieve, create or solve. Positive outcomes involve creativity and innovation, appreciation of diversity, multiple perspectives and issues. Frequently the "learners" seek out experts.

Some examples:
Georgia Tech (Websites will be captured and shared with the audience)
AquaMOOSE 3D – A multiuser, graphical, game construction kit designed to support math, art, and computational learning.
Palaver Tree Online- Students interview elders to build up a multimedia archive of oral history.

The Turing Game- (Researcher – Josh Berman) Issues of identity online. Questions about gender and race to make students more sensitive to others. Panel of users pretend to be a member of a group. An audience of users try to discover who the true members are, by asking questions and analyzing members.

IRC Francais is a project to help students learn French. My firewall will inhibit students using this service.

Students experience new virtual worlds as practice arenas for new behaviors and skills in a safe environment. Teachers and students are forming frameworks for research of social phenomena. Teachers often benefit from belonging to communities of professional colleagues prior to participating in this as an expert learner (Apple Distinguished Educators; Provocation '98; Apple Learning Interchange with chat room, forums, units of practice and more; and graduate courses with a community component)

Ohio (http:tlc.treca.org) schools participated in a research project on *Tranforming learning communities: Research project on school change*. Using research tools, observation and in depth studies, their findings revealed that school change is messy, non-linear, and chaotic. They also recognize that teaming is critical. Educators must be willing to take a risk. Teachers and students need time to reflection. Teachers need time to communicate with colleagues. The entire group of stakeholders must be aware of what can and cannot be changed.

From direct experience with eighth grade students and highly experienced computer teachers, our district participated in a pilot with think.com (Oracle's Promise) with 300 eighth grade students that focused on a Class trip to Washington, DC.
The teams of students brainstormed their content and activities using the online brainstorming tool. Various team members wrote articles. Many worked at home to prepare journal entries. They wanted a Congressman to serve in the hotseat, but ran out of time trying to match their schedule with that of the Congressman. Those who did not go on the class trip researched Washington on the Internet and contributed URLs. There were audio clips. We received digital camcorders after the trip. (Next year we hope to have a video clip.) The teachers formed 8 communities and then served as expert learners in that community.

The primary thrust of this initiative was to develop learning and thinking in online communities. Teachers were able to measure collaboration and tasks accomplished. Students and teachers used the latest in database technology in order that students could create, communicate, and integrate in a closed secure environment. Students used their real name in the community so they developed a sense of identity. The school district had an acceptable use policy. The district's firewall still worked, but any Think.com computer had to access the Oracle site directly (www.think.com).

The interface was designed at the 4th grade level, but addressed the use of html to show greater sophistication as students developed more web skills. Students populated a database on their topics. They expressed ideas within a community in their school, in their district, their county, in the United States, and in their world. The teacher determined the depth of the project. The interface of the software used and still uses the publishing metaphor. Teachers and students may "own" the community or they serve as

reporters or editors. Others may simply view the documents and items included in the database. Audio and video are important components of this software for audio and video allow for different learning styles, modes and intelligences.

My team suggests the following:

1. Persistence- students thought the task would be done immediately
2. Analyze task- students did not have as much experience in problem solving and making decisions.
3. Phrase question- students are not in collaborative learning environments often. Much of public education does deal with stand and deliver lectures. Students and communities need to develop good questions.

To support the learning community, teachers, administrators, parents, and others need to follow guidelines. Bauman (1997) (http://leahi.kcc.hawaii.edu/org/tcc_conf97/pres/bauman.html suggested these items for the teacher and community:

- Communicate frequently with the community
- Involve a technology support person
- Just in time staff development- drop in to class to train teacher/students
- Space for non-classroom interaction
- Parents may view project in progress
- Understand limits of technology (25 MBs per person,,,share, plan, …)
- Ask questions, prod silent people.

Consider all the support services (writing center, librarian, teams of teachers, technology support people, community member, experts, another class in that area). Involve support personnel as extra team members. Include culture and intellectual enrichment online. Museum resources and other digital media will assist the learning community with a sense of common experience that can occur anytime, anywhere.