HERE’S A MOUTHFUL: ASYNCHRONOUS LEARNING network. The term describes how people multi-task and learn at different rates and times in cyberspace. E-learning specialists often use the term — or its acronym, ALN.

“Asynchronous learning means digesting materials from online discussions anytime, anywhere,” says Starr Roxanne Hiltz, distinguished professor of information systems at NJIT and director of the WebCenter for Learning Networks Effectiveness Research. “ALN courses exist as a rolling presence around the clock. Each student sends and receives communications at the most convenient time and place. In turn, convenience allows people to create more thoughtful responses.”

Hiltz has spent two decades studying how to improve the flow of such cyberspace conversations. Her many achievements include more than 250 ALN-related scholarly works and being the first to conceive of online virtual classrooms. The Sloan Consortium, an association of more than 450 institutions and higher education groups engaged in online learning, recently honored Hiltz for her research on computer-mediated communication and learning networks.

Most of Hiltz’s research looks through the lens of electronic-classroom learning for ways to create and improve electronic-learning “communities.” The practical value of her work aids universities like NJIT where e-learning and online classes touch many students. Hiltz has been instrumental in developing the university’s large selection of online courses and degree programs for the Division of Continuing Professional Education.

But there’s also been interest from the average person and the media to learn more about such research. This work has involved demonstrating how computer-mediated communication (CMC) in the form of threaded discussions and the exchange of digital files — photos and audio, for example — can be more intimate than face-to-face communication, why good electronic communicators must create “swift trust,” and more. What follows is a run-down of Hiltz’s best-known ideas.
The rhythm of online learning

ALNs have two important characteristics. They must involve students “learning together” in a cooperative or collaborative manner that leads to better results. And everyone must work at his or her own preferred time and location. “I can’t place enough emphasis on the importance of this different rhythm of correspondence, called asynchronicity,” says Hiltz.

As everyone knows, you rarely get an immediate response to an email. This different rhythm of interaction — as compared to a face-to-face meeting — takes getting used to. “However, what may be lost in ‘spontaneity’ is gained in the convenience of engaging with others and learning materials at one’s preferred pace,” says Hiltz. Also, since participants can think about and edit their contributions and incorporate resources they find online before posting them, more in-depth comments are made.

Thoughtful responses, of course, create more intimacy among correspondents. “I know people complain a lot about the distant and detached nature of written computer-mediated communication,” says Hiltz. “However, I don’t think that online communication is necessarily detached. There is actually a lot of social communication online, and lots of people who are now friends or even couples have actually met online.”

Electronic etiquette

Still, even with asynchronicity, participants need etiquette to achieve a familiar and positive online interaction, says Hiltz. Her research includes these must-dos.

Watch the tone of an online exchange. “Be clear, but not aggressive,” she says. The aim is to approach things politely and clearly, and with consideration for the knowledge and attitudes of all the readers.

Congeniality and solidarity will go far. Just as it is necessary when opening a conversation in person or on the telephone to have polite greetings such as “hello” and “how are you,” socially positive cues and words in written communications online matter as well.

Appreciate the group leader. Leaders play key roles, says Hiltz. Among the most important is creating clear, shared definitions of the task. “Set forth a schedule for goals. Then create and reinforce predictable patterns of communication and action by giving out structured activities.” There are also other must-dos for the leaders.

Leaders must participate. They need to be online and involved in the dialogues to motivate responses. Leaders should encourage class or group participation by asking people to talk about themselves. “At NJIT, we ask online students to share information about their jobs or major, their marital status, if they have children, and to discuss their hobbies,” says Hiltz.

Leaders must settle disputes. “If someone starts writing negative things to someone else, we have learned, and research has shown, that it must be dealt with immediately,” Hiltz says. Most software platforms to support online classes give “moderator” privileges that allow the instructor to edit or delete anything that is destructive. Using such online software, the instructor can privately message the transgressing student. The teacher can also explain online why a particular edit was made and suggest ways in which the individual might communicate the same information without it coming across
as a “flaming” attack on one or more of the other students.

And, lastly, leaders must facilitate trust. “Members of a successful group must feel that they ‘know’ each other and that they can trust one another,” says Hiltz. Researchers call such a phenomenon “swift trust.” Leaders of successful cyberspace classrooms know they must quickly establish it. Such was the topic of a recent scholarly paper by Hiltz and two other NJIT faculty members — Nancy Coppola, a professor in the humanities department, and Naomi Rotter, a professor in the School of Management.

The three Cs

“People must feel that everyone will do his or her part to make mutual online activities successful,” says Hiltz. The instructor establishes the set of positive expectations that will result in initial, “swift trust.” To do so, the leader includes what Hiltz calls “social-emotional-positive” as well as task-oriented components in their communications. “I like to call them the three Cs of communication: constructivism, collaboration and community,” says Hiltz.

Constructivism means that students, through online discussion and activities, actively build and share concepts and skills, rather than passively listen to or read a lecture. Collaboration refers to the practice of having groups of students within an online course work together on projects which they then present to the class, such as computer programs, case study analyses or Web page designs. Community means that social presence and a sense of personally knowing the other students and the instructor emerge through the daily online discussions and activities.

Although Hiltz’s appointment at NJIT is in the College of Computing Sciences, she brings to this world of mathematics and specialized logic another academic dimension. Hiltz is formally trained as a sociologist. She received her bachelor’s degree in sociology from Vassar College, and her master’s and doctorate in that discipline from Columbia University.

Hiltz recently co-edited with former NJIT Professor Ricki Goldman Learning Together Online: Research on Asynchronous Learning Networks (Lawrence Erlbaum Associates, Inc., 2005). The text highlights research into the effectiveness of electronic learning. She was also the keynote speaker at the International Conference on Web Based Communities in Portugal, where she presented findings about building learning communities in online courses.

“Asynchronicity may at first seem to be a disadvantage,” says Hiltz. “After all, there are no face-to-face meetings, plus no one is actually talking to anyone else at the same time. But in the end, research shows it to be the single most important factor needed to create a collaborative teaching and learning environment.”

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“The fact that one of a group’s members can only take part after putting the children to bed at night, or that some of the members take two to three times longer than others to read and respond to material, does not determine the ability of others to work at the time and pace that best suits them. Each person can think about, compose and revise their contributions at their own optimal speed before posting them. And because more time is spent refining contributions to a discussion before hearing them, online discussions are generally considered to be “deeper” than in-classroom exchanges.

It’s an interesting point to consider the next time you hear someone complain about the limitations of email and the brave new world of electronic communication.

For more information:


Division of Continuing Professional Education, http://cpe.njit.edu

WebCenter for Learning Networks Effectiveness Research, www.ALNresearch.org