Students at University of Nebraska-Lincoln’s interact with classmates in Turkey as part of the Global Classroom project.
Technology is opening the door to new opportunities for students and faculty to make international and intercultural connections.

As the Internet and social media increasingly allow education to supersede geographic boundaries, colleagues and classmates may very well be on the other side of the world. In addition to helping internationalize the curriculum and facilitate research collaboration, technology has also made international experience much more accessible to students unable to study abroad because of limited financial resources or time.

“Technology” is a rather broad rubric and encompasses a variety of tools and media that enable communication and collaboration between students and faculty in different countries. Higher education institutions in the United States and abroad are using technology to bring the outside world to their campuses.

Several universities use video conferencing technology to create virtual classrooms allowing real-time interaction with partner schools in other locations while others use online course management systems to foster online discussions that students participate in at will. Some institutions use Facebook and Skype for predeparture preparation, others use the same tools to maintain contact with students who are abroad, and still others use them to maintain communities after the education abroad experience.

Julie Little, senior director of teaching, learning, and professional development at EDUCAUSE, a nonprofit association that promotes the intelligent use of information technology in higher education, says that new tools—whether used for collaboration, cocreation or real-time interaction—have helped “flatten the world.”

“The classroom is no longer defined by what might reside within four walls,” she says. Little says a major benefit of technology in the context of international education is a new definition of “collaboration”: “While we have many international students who come to American universities and participate in American higher education, that’s different than when your class colleague is sitting on another campus around the world and you’re building knowledge together.”

In January 2010, in conjunction with its equivalent organizations in Australia, the United Kingdom, and the Netherlands, EDUCAUSE published a white paper on the future of higher education. Among the paper’s points was the fact that formal and traditional boundaries are becoming “more permeable and porous,” partly because “the physical constraints on when and where students participate in education are being removed through open and online education.” In addition, it observes that “students have virtually limitless access to information, faculty, tutors, and each other.”

1 http://www.educause.edu/Resources/TheFutureofHigherEducationBeyond/194985
Other developments noted in the paper include the changing nature of educational arrangements: “The more traditional model of a university or college providing most of its services physically on (or near) a campus is changing. More and more services and programs originate off-site, sometimes shared, distributed, or aggregated by other colleges and universities or outsourced agencies.”

**The Virtual Classroom**

Some of the most exciting examples of how technology is changing the face of international education include real-time interaction between students in two or more countries via video conferencing. For instance, the Global Understanding course at East Carolina University (ECU) in Greenville, North Carolina brings together U.S. students and faculty with their counterparts at 28 universities in 22 countries.

Rosina Chia, assistant vice chancellor for global academic initiatives at ECU, runs the course together with Elmer Poe, associate vice chancellor for academic outreach. Chia says the first official course was held in 2004. As the leading distance education (DE) institution within the University of North Carolina system (accounting for 65 percent of DE among 17 universities), ECU was well placed to undertake such an initiative.

At an institution where less than 2 percent of the students go abroad, they were looking at other ways to facilitate international experience. “We decided that if they cannot go abroad, let’s bring abroad back home to them,” she says.

When Chia and Poe created the program, they wanted to keep the technology—in this case, video conferencing and Internet chat, along with an online course-management system—affordable and accessible, especially for partners in developing countries. “If you have e-mail capacity and 256K bandwidth, we can do it,” she says.

There are currently eight sections of the Global Understanding course, which is offered through the international studies, anthropology, and psychology departments. Each class is taught in conjunction with faculty in three other countries, who are also partnered up with each other. There are typically 16 students per country, per class.

The class meets three hours per week during the 15-week semester, and every five weeks they rotate partners. Students are also assigned a foreign student partner with whom they work on collaborative projects, such as a joint paper.

Joseph Wolyniak, who graduated from ECU in 2004 with bachelor’s degrees in both neuroscience and a philosophy, took the course twice and was subsequently a teaching assistant. After completing a master’s of theological studies degree at Duke University, he is now pursing a doctorate in philosophy at the University of Oxford.

Describing the Global Understanding course as “nothing short of life changing,” Wolyniak says it removed “the limiting factor of finances, offering one of the next best things to an actual study abroad experience.”

“The biggest impacts were the in-depth, one-on-one conversations that we would have with our partners. These conversations were of a richness and depth seldom experienced by anyone—even in the most ideal of cross-cultural immersion experiences. We discussed topics one would never even think of broaching in a cross-cultural context. But our professors encouraged us to ask the tough questions of one another,” Wolyniak says.

Wolyniak cites examples such as asking a Gambian Muslim woman whether the practice of polygamy was reconcilable with the view that women were more than ‘mere possessions’ and discussing what it meant to aspire to leadership in a system of governance that had a less-than-stellar record on human rights with a Chinese law student.

“So often, in asking such tough questions, one would be confronted with the complexity of the answers—not the pat, easy sound bites we so often unquestioningly digest. The confrontation with entirely different systems of thinking, the reframing of the very questions posed, these were insights that could only be garnered within the context of deep and engaging conversation. And such conversation, in turn, developed lasting friendships,” he says.

In addition to the individual transformations such as that described by Wolyniak, the success of the Global Understanding course has helped internationalize the ECU campus.

Poe says that partly because of strong support from institutional leadership: “The message about the importance of globalizing the curriculum has allowed us to develop what some might consider to be nontraditional activities.”

Poe adds that the technology has also been used to complement what is perceived as traditional education abroad. “In general, I think what we are seeing is that technology can provide a richer experience than
we have traditionally thought possible. If a faculty member is going to lead a group of students on a summer service-learning program, that can be preceded by electronic connections so the project can get off the ground before the students get off the ground,” he says.

Another program similar to ECU’s Global Understanding course is the Global Classroom project at University of Nebraska-Lincoln (UNL). UNL has offered intercultural communications courses in a virtual classroom using Internet video technology every semester since fall 2005. Partners include institutions in Turkey, Pakistan, and Russia.

Using computer projectors students can see and hear life-size images of each other, as well as give Power Point presentations. In addition to live interaction via video conferencing, the Global Classroom project also uses Blackboard, a Web-based course-management system designed to allow students and faculty to participate to use online materials and activities to complement face-to-face teaching.

UNL’s Global Classroom project is run jointly by Professor Charles Braithwaite and Instructional Technology Coordinator Bruce Sandhorst. They say the project’s success has been largely due to a good working relationship between faculty and technical staff.

Braithwaite says it was essential that Sandhorst was present during visits to potential partners, in terms of liaising with technical staff there but also in designing the classroom set up at UNL.

“We had someone who spoke the language of technology. Having that expertise on the ground meant that the faculty member could work with the other faculty and administrators on issues of content and scheduling and convincing them that this would be a good thing. Sandhorst worked closely with people running the technology to make sure that it works,” Braithwaite says.

Braithwaite and Sandhorst are both convinced that video conferencing is the best technology currently available to use in a classroom setting.

“There are a lot of different tools like Skype, but if you want a classroom experience, the video conferencing solution is still the most viable because you can have the whole class involved. We have a very large screen in the front of the room, and the students on the screen are life-size. The technology becomes transparent and after awhile, they kind of forget about it,” Sandhorst says.
In addition to the screen where students can see each other live, each classroom has a second screen for power point presentations. Students give presentations on one screen while the faculty member in the other country will click through the slides on the other screen.

Lauren Jensen, a sophomore communication studies major who took the course in fall 2009, says she enjoyed using Blackboard because it allowed them to take a look at their Turkish and Russian classmates’ presentations before class.

“My absolute favorite part of the course was the ability to use PowerPoints to teach each other about ourselves, and our cultures. Not only did it help facilitate conversation, but it also helped us understand each other more. Sometimes, we would have difficulty with the language barrier, and the PowerPoints cleared the confusion. We did presentations about ourselves, marriage, dorm life, jobs, dating, and many more. I especially loved the pictures that were shared on these PowerPoints because it gave us a visual of the topic,” Jensen says.

The personal relationships and intercultural competencies to emerge out of projects like ECU’s Global Understanding course and UNL’s Global Classroom project may be some of the most long-lasting benefits of these initiatives. As Sandhorst puts it, “For me, part of the fascination of this class, and observing the students and relationships that evolve over the class, is that students are experiencing other countries as people, not as political entities.”

Enhancing Short-term Education Abroad

While the virtual classes at ECU and UNL focus on interaction with international partners, other universities are using video conferencing technology to collaborate with other U.S. schools.

Rice University in Houston, in collaboration with the University of Tulsa and the University of Pittsburgh, runs a program for engineering, science, and business students in Asia that utilizes a live, webcast course to complement a 10-day international symposium (called INNOVATE) that is held in two Asian countries. The conference, embedded within the semester-long course, involves 65 engineering and science student delegates from universities throughout the United States and Asia, including institutions in Japan, Singapore, Vietnam, Taiwan, China, and India.

Examining the relationship between globalization, technology, and innovation, the seminar provides the context for the topics explored while the delegates are visiting the countries. The course’s cyber infrastructure combines a live webcast with an online course-management system.

The live-webcast technology facilitates real-time interaction and discussions between students and faculty at Rice, Pitt, and Tulsa and incorporates group projects including country reports and a virtual poster fair. The webcasts are also archived online for all delegates.

Cheryl Matherly, associate dean for global education at Tulsa, says one of the program’s strengths is that it is both interdisciplinary and intercultural. “This course is looking at the business applications of engineering and we get a mix of students from both disciplines. Many of them have never considered the issues from the perspective of the other,” she says.

“When you bring these two groups of students together, I think they find the richness of that discussion to be something they didn’t anticipate. I get a little bit of push back at the beginning of each semester, and by the end they see it’s important that they learn to work with each other,” she explains.

Matherly adds that another benefit of the course is that students become used to operating in a virtual environment. “We are exploring technology as a concept but also using it as medium of instruction. The students are learning a lot about working in virtual teams and how to communicate with people from different backgrounds when you are not in the same room,” she says.
Hadi Fathallah, an electrical engineering graduate from the American University of Beirut (AUB) in Lebanon, says the program prepared him well for graduate school. He was a delegate to INNOVATE in Taiwan and Vietnam. He is currently pursuing a master’s degree in public administration at the Cornell Institute for Public Affairs.

“We have grad students from 30 different countries and 30 different U.S. states. It has become easier for me to work in teams from different backgrounds, and I have come to appreciate the diversity every person brings in from his own culture and background,” Fathallah says.

Larry Shuman, associate dean for academic affairs at the University of Pittsburgh School of Engineering, says the set-up of INNOVATE is important for engineering students who often have a hard time fitting long-term education abroad into their tight course schedules.

“Particularly with engineering students, we think that going for a short period of time but going well prepared is a very good alternative to going for a full semester,” he says.

**Increasing Intercultural Competence While Abroad**

Other institutions are using social media and communication technology like Skype to provide support to their students while they are abroad. Willamette University in Salem, Oregon, and Bellarmine University in Louisville, Kentucky, provide an intercultural study course for students while they are abroad to develop intercultural competence by intervening in the cultural immersion experience.

Following a predeparture workshop, the students disperse throughout the world to their education abroad destinations. Using online course management-systems like Blackboard, students post their weekly assignments and provide feedback to each other.

Kris Lou, director of international education and associate professor of international studies at Willamette, says that he and Bellarmine colleague Gabriele Bosley have found that those students who were taking the course while abroad experienced much more significant intercultural learning compared to those not taking it.

“First, the framework of constructing a learning group out of students who are physically in a wide variety of cultural contexts throughout the world can only be done effectively with computers and some type of classroom software such as Blackboard or an open source format,” Lou says.

“With all of these students interacting in this virtual classroom, we are able to raise the level of analysis and discussion of cultural phenomena,” he says.

Students share cultural experiences with their peers via the online system. The courses ask them to analyze the various dimensions of the experience, including cultural values as well as how their own culture might color their interpretation.

“Most significantly, they begin to look at their own home culture as merely one possibility among many. This is a major step...
in an individual’s intercultural development. It is extremely difficult if a person does not step outside of her cultural context. It becomes easier once one lives in another culture, but it doesn’t necessarily happen on its own. Participating in a learning group like this, while immersed in another culture, it is difficult to not develop one’s intercultural competence,” Lou says. He continues: “The course is a form of intervention in the students’ immersion experience that serves to arrest the flow of experience and require reflection which leads to learning. Without an intercultural course, there is typically little reflection on an otherwise emotionally intensive immersion experience...The framework of Blackboard enhances these outcomes and the reflection process itself because it enables conversation and analysis of intercultural issues by virtue of bringing participants into the discussion who are experiencing the same phenomena, but with different cultural manifestations.”

Another program that brings together classmates scattered around the globe is the low-residency international education master’s degree offered by the SIT Graduate Institute. This program incorporates various technologies, including course management software, video postings, webinars, blogs, wikis, and social networks, to allow professionals who are working in the international education field full-time to maintain their jobs while pursuing a degree in the field. Students do meet face-to-face on the SIT campus in Brattleboro, Vermont, during an orientation at the beginning of the 24-month program, as well as during shorter workshops in the middle and a capstone seminar at the end, but the rest of the course is online.

Sora H. Friedman, associate professor of international education and chair of the SIT international education degree, says that they vary rarely use synchronous (real-time) interactions during the time-span of the course because of the geographic spread and different time zones of the students. “For example, in one cohort this year, we have students in Japan, California, Minnesota, New York, Washington, D.C., Ecuador, Jordan, and Tanzania simultaneously. With students literally around the world, the only way we could have real-time interaction would be if someone were willing to do their coursework in the middle of the night. Obviously, we can’t require that so we have to work around the students’ physical limits (time differences) and turn that into a positive. In fact, we find that using asynchronous activities often encourages students to be more thoughtful in their replies, since they have more time to process what others say and their responses in turn,” she says.

Friedman adds that the structure of this program actually facilitates some unexpected intercultural connections: “The low-residency format also makes it possible for students who travel in their work to participate, so even if a student is U.S. American, the fact that they can be in Japan, Tanzania, Ecuador, South Africa, etc. for short periods during a term also allows for greater intercultural perspective...When a student is being asked about intercultural content while they are away from their own comfortable home space, their learning is certain to deepen in more significant ways, both professionally and personally.”

Creating Communities Via Social Media

While Lou’s and Friedman’s programs focus on bringing students from the same university together during their education abroad experiences, other institutions are using technology to build communities prior to an international experience.

Daniel Mittleman, associate professor of computing and digital media at DePaul University, is one of four program directors for a U.S.–EU dual-degree program in business and information technology. Western Illinois University (Macomb, Illinois), Ecole de Commerce Européenne (Lyon, France), Linköping University (Linköping, Sweden), and DePaul University (Chicago, Illinois) offer a dual degree supported by the Fund for the Improvement of Postsecondary Education (FIPSE) and its European equivalent.

The U.S. institutions send undergraduate juniors to France and Sweden for a year where they complete a three-year Bologna degree in business, and then the U.S. students return to the United States for their senior year and host their European counterparts who complete a U.S. bachelor’s degree in business or information technology. Each school sends six participants for a cohort of 24 students. The first group graduated in spring 2009.

Mittleman says they establish a Facebook group for the students so they can start communicating prior to meeting in person.

“The European students provide significant information about what you can get there, what you need to bring, what life is going to be like. American students don’t realize there are grocery stores and department stores in Europe,” he quips.
“A community builds up—and it remains. They’ve got these long-term bonds and Facebook seems to be continuing on as an alumni vehicle for them,” he says, adding that it has also become a way for students to keep in touch with friends and family back at home.

Mittleman says that Skype is another tool that has become essential to the functioning of the program. In addition to using Skype to advise his own students, the four program directors have a cost-free conference call every week.

“This has allowed the program to survive. As with any program, you have your critical points where something could go wrong, and we’ve been able to bring everybody together and talk through the issues on very short notice thanks to the technology,” he says.

According to the students, the Facebook group was particularly important in terms of relieving predeparture anxiety. Vincent Anter, currently a senior and interactive media major at DePaul, says he was able to connect with both his classmates and previous participants via the site.

“This allowed me to initiate contact with one of the American students who had participated in the program and I was able to meet one and ask him questions before going abroad. And as I browsed through my foreign colleagues’ Facebook pages, I became more comfortable about going because it became evident that these people were not as different from me as I had thought. They used Facebook, they had similar interests, and their photos allowed me to ‘know them’ before I actually knew them,” he said.

Mittleman says another aim of the program is to teach the students to become adept with technology. “We’re very consciously trying to teach them how to function as global citizens, and there is a layer of technology that is used for virtual collaboration and we want that to become comfortable and familiar to them,” he says.

Lina von Paczensky, a German student who recently graduated, says that the program actually introduced her to Facebook. “In the beginning, it seemed a little bit like a different world, but Facebook and Skype soon became the major communication tools within
our network. Whether it was to find out who would go to which bar at night or to post the pictures from the last weekend trip, Facebook especially was a great platform to exchange news and material and at the same time make it available to friends and family back home. ‘The world is flat’, Friedman’s famous saying from his book about globalization and its technological impact, became our dictum, every time we realized that there was a bunch of students from three different corners of the earth, interacting in real time through this social media platform.

He says the number of people “following” the @darfurconflict account has grown steadily, and includes government officials and relief agencies. The next step will be to partner with students at the University of Winneba in Ghana, who will also tweet, thereby adding an African perspective to the project.

“Twitter is a really useful medium for learning about things that are happening in places that you are disconnected from. This is a really great practical example of a group of students in Pennsylvania who are raising awareness about a situation that is going on across the ocean...There has been a conversation that’s been created by the students here with people who are there on the ground,” he says.

“We’ve also had conversations with people who are doing activism all over the globe who are trying to raise awareness in their own way. The @darfurconflict account has become part of an international network of people who are talking about this issue—so the students here entered into that global discussion,” Littau continues.

Lisa Boyd, a senior at Lehigh studying international relations, says the project introduced her to Twitter.

“I was actually abroad in Tanzania in the spring [2009] when Twitter kind of boomed. I came home and I was interning at an NGO in New York over the summer, and they were twittering. ‘WHAT IS TWITTER?’ I asked. I had never used it before this,”

As a result of the @darfurconflict project, Boyd says that “people have fallen more in love in getting the word out. I think the project has been really great from a student standpoint in getting us to be interested in a single topic and getting involved in one type of media that none of us had used before.”

Tweeting to Raise Awareness

While some institutions integrate the technology as a vital component of their educational courses, others have looked to social media as a way to participate in global conversations.

As part of a UN-initiated project, a group of students at Lehigh University in Bethlehem, Pennsylvania, started using Twitter to raise awareness about the conflict in Darfur. Started in November 2009, the project is entirely voluntary and students post short statements—140 character messages called “tweets”—about articles and other material they come across.

Jeremy Littau, assistant professor of journalism and communications professor, is overseeing the project. They created a Twitter identity, @darfurconflict, which is used by all of the students. “We stress having regular postings a couple of times a day, if not more, and that we were going to follow people who are activists in this area. We’re not just pushing content that we think is worthy, but also other people’s content—in other words, building a network,” Littau says.

Making International Experience Accessible to All

Several of the educators involved in the various programs emphasize how technology has increased access to international experience for students who might not be able study abroad.

International experience facilitated by technology might be especially important at community colleges, where there are fewer education abroad opportunities than at four-year institutions. Cascadia Community College, outside of Seattle, has recently participated in conferences via WebCT and Skype with Osaka Jogakuin College (OJC) in Japan and Madinat Zayed and Ruwais Higher Colleges of Technology in the United Arab Emirates (UAE).
Professors Scott Johnston at OJC and Wade Muncil, who has been teaching in Abu Dhabi since September 2006, originally began an exchange between their students via WebCT during a course in comparative culture studies. They eventually added Skype video conferences to introduce a live component to the class. Cascadia began participating in fall 2009.

According to Cascadia President Bill Christopher, they are not currently offering the negotiations as a course, but rather as a way “to connect students in ways that cannot be accomplished with a textbook, a lecture, or a film or PowerPoint presentation.”

“The use of today’s technology allows us to connect students together in real-time and in a way that allows for some creative and interesting discussions. We would never be able to send 15 students to Jakarta [Indonesia] or Osaka, Japan, or the UAE. The college doesn’t have the resources nor do most of our students,” he says. “For many community college students, the brief time they spend at their institution may be the only opportunity to be exposed to the world beyond their communities. This technology gives us the ability to expand horizons, enhance understandings, and create a desire to learn more.”

The same is true for many of the foreign students involved. Muncil says the women he teaches in his all-female classes are part of the first generation in their families to receive a tertiary education. “Although culturally conservative, we are technologically progressive. Our classroom in the middle of the desert is wireless and paperless with Smart Boards, every student has a computer, and these people of the desert are way beyond their teachers in usage of technology,” he explains.

“My students were absolutely thrilled to do a video exchange with Japan and America. As one student phrased it, ‘It was the most exciting day of my life.’ During the exchange, you could see the similarities and differences in culture. Girls talked about breakfast (miso soup, pop tarts, and Arabic coffee), music, and favorite books. What could never be communicated by a teacher or through a book be-

between countries by researching their assigned country and formulating their country’s policy.

Rosalind Latiner Raby, director of California Colleges for International Education, says the program is valuable for students and faculty alike. She says programs like INMP are essential at the community college level because it “provides international competency skills while staying at home and therefore reaches more students.”

“The other thing that is exciting is that faculty are changing. They are starting to teach their subjects in a different way through use of the technology,” Raby says.

One such faculty member is Gregory Rabb, associate professor of political science and coordinator of global education at Jamestown Community College in New York. He says INMP has encouraged many of his students to study abroad later on in their educational careers.

“The INMP simulation allows my students to ‘experience’ the world from the safety of the classroom but then they almost always go on to the next level,” he says.

He says it has also changed the way that he teaches. “I am seven years from retirement after 25 years in the classroom, and younger colleagues always remark that I always seem so interested in my work and they ask why. Part of the answer is the INMP,” he explains.

Each spring semester he has to refresh his knowledge about the two countries represented by INMP teams at Jamestown. “Because I never know what will happen once the simulation gets underway, I have to be flexible and on my toes as much as my students if not more...Also, because I am a one-man department in a rural county in southwestern New York state, work with other colleagues (across the country) has been invaluable,” Rabb says.

Facilitate, Complement, Support ... and Integrate

Whether using live Web casts or tweeting about international events, it is clear there is a multitude of ways that institutions are using technology to facilitate, complement, and support international experience and intercultural connections. As Little puts it, “Web 2.0 technologies have allowed individuals to connect real-time to others anywhere in the world. I think that’s where we’ve seen some interesting explosions of internationalization. Anybody can do a video, and anyone can get onto Skype. A lot of these kinds of technologies that were previously very expensive and limited have put international experiences in everyone’s hands. The challenge now is: ‘How do we create integrated curriculum?’”