Stages of Virtuality: Instructor and Student

By Dee McGonigle and Renee M. Eggers

The Internet has been a reality for decades for researchers and educators at institutions of higher education. With the development of the Internet, the complexion of higher education has changed. The Internet offers opportunities not available before, and this technology has had a major impact by changing the scope of electronic communication and radically transforming the manner by which our educational coursework and resources can be delivered to our consumers. This Internet offers us the ability to create highly complex virtual learning environments, which are capable of being delivered from local to global educational markets. Additionally, this virtual, highly stimulating medium provides us with a tool to distribute our course content and activities anytime and anywhere. Students need only tune in.

As higher education continues to embrace the virtual learning world, students and faculty must adjust to this new medium. The authors have been involved in various aspects of virtual courses before people knew this catchphrase. This article describes the typical stages identified during the instructors' and students' transition into this new learning frontier, the virtual world. Although this article is geared towards entire courses being offered over the Internet, it can also partially apply

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to traditional courses that have an Internet component.

Instructor's Stages of Virtuality

For an instructor, there are seven basic stages through which the instructor typically passes when designing and teaching a virtual course. Some stages are more difficult than are others. Yet, as experience in the offering of these courses is accumulated, passing from one stage to another becomes easier. Nevertheless, for the novice virtual course instructor, awareness of the seven stages will at least alert the person as to what to expect before assuming responsibility for a virtual course.

Excited Stage

The instructor begins the journey into virtual course offerings at the "Excited Stage," since the person has an idea about a course that can be offered via the Internet. Once the person gets approval from superiors or the appropriate committee, the instructor, who is soon to be a virtual instructor, excitedly approaches the creation of a new course, or transformation of a traditional course, to provide students with a state-of-the-art way of obtaining education.

Apprehensive Stage

After the instructor has course approval and advertising of the course is planned, the person soon enters the "Apprehensive Stage." In this stage, thoughts of "I now have to do what I said I would do" keep running through the person's mind. The instructor worries about being able to create the learning environment that was conceptualized. This is the point at which the instructor may feel panicked about the possibility of not creating a "good" course. Instructors often feel that they are "in over their heads" at this point. One instructor told me that she felt as though she was beginning teaching all over again. She went on to say that "This is uncharted water and now I don't know if I want to be out there creating the map."

Questioning Stage

When the time comes to actually start preparing for the virtual course, the instructor soon steps into the "Questioning Stage," and a constant question seems to be "How am I going to get it all together?" Many other questions also surface at this time. These questions tend to revolve around issues such as Web access versus electronic mail (e-mail) access, number and complexity of assignments, meeting university-imposed credit hour requirements, and methods of transforming traditional course materials into ones for a virtual environment. This stage is a critical one in that the questions act as

guidelines for the resulting virtual course. Instructors are busy seeking answers. They want to find out "how-to" actually do the work they have now begun. They have moved from apprehension, the worry before action to actually beginning to act. Course development issues continue to surface through development, however, as the instructor begins to navigate these waters, they gain a sense of confidence. One instructor I was assisting told me that, "As I started to do this my legs were shaky and I felt that it was an impossible task to learn everything I needed to know. But, you know as I began to move forward and develop materials and things took shape, it was easier and easier to deal with the 'newness.' The 'newness' was scary at first but then conquering each new hurdle made me grow confident. I began by trying out e-mail and then a conferencing tool — what a hurdle. Hey, I'm on the Web in various formats now and helping others get through."

Determined Stage

Finding, or deciding on, the answers to the questions raised in the previous stage and actually beginning to prepare the course materials moves the instructor into the "Determined Stage." Now, the instructor faces the reality that the course has to be in a condition that it can be taught via the Internet so that it is valuable to the students and enhances the reputation of both the instructor and the university. The instructor becomes focused and is able to begin preparing the course materials that establish the virtual culture for the course. After trying many formats and questioning delivery every inch of the way, the course begins to take shape. The culture is building with every decision or action. Many instructors must be reminded about culture. In our classrooms we have control over the culture in our presence; however, at times, cyberspace eliminates our physical presence. We must guide and facilitate the development of a cultural environment in this new educational medium. This is an area that causes problems for many students and instructors.

Overstimulated Stage

Either during the course-planning phase or at the being of the implementation of the course, the instructor soon slides into the "Overstimulated Stage" when the instructor realizes the increased electronic demands from students. There are two major levels in this stage. First, because the course is a virtual course, it makes sense to have the students access related topics that are available on the Internet. Yet, because of the generous, sometimes overwhelming, amounts of Internet information available on certain topics, the instructor becomes

overstimulated as to what the instructor specifically wants the students to read and what the instructor wants students to be able to have for enrichment-type references.

The second level of this stage is interaction with students. In a traditional course, the instructor meets face-to-face with the students a scheduled number of times a week, and students also have access to the instructor during the instructor's office hours. In virtual courses, students also need to be able to interact with the instructor.

By using e-mail or some Internet conferencing method, the students have the capability of electronically accessing the instructor 24 hours a day. Since many students enroll in virtual courses because those courses allow for time flexibility, electronic course communication can occur whenever the students decide "to go to class." The global market exacerbates this dilemma when the instructor realizes that some of the course's students are from different states or countries in different time zones. Thus, the instructor has to deal with the problem of how to handle communication when a student's day is just beginning at the same time that the instructor's day is ending. Managing the communicative dilemmas brought on by the energized Internet courses can be overwhelming. Although the seemingly simple answer is communication using e-mail, there are many situations when e-mail is not efficient or sufficient to satisfy communication demands; when that occurs, the instructor has to make a communication decision based on resources available to both the instructor and students. This may even necessitate that the instructor communicate with the student via Internet conferencing tools, telephone, fax, or mail.

Questioning Stage Revisited

Once the virtual course is in full swing, the instructor steps into the "Questioning Stage" again through another door. The instructor then asks, "How can this course be better, and is it meeting the students' varied needs?" This is the time when the instructor starts performing formative evaluation. Also, the instructor plans for summative evaluation. Answers to evaluation measures are valuable if the course is to grow and to really meet the educational needs of the students.

Exhausted Stage

When the virtual course ends, the instructor typically advances to the "Exhausted Stage" because the course is over! Duration of the "Exhausted Stage" can continue even when the focus moves to revision of course material and content, based on lessons learned from implementation and evaluations. After moving through the stages initially, the

instructor is able to re-enter these stages more confidently and is ready to examine other courses for possible virtualization.

Student's Stages of Virtuality

Instructors are not the only ones who move through a series of stages during a virtual course. Students have their own five stages, and like the instructor, the first time through the stages involved in taking a virtual course is the most difficult. Subsequent progression through the stages as a result of taking additional virtual courses becomes only slightly easier since the student does not have the amount of control in the course that the instructor does.

Confused Stage

Students begin at the "Confused Stage." Many students who are not familiar with taking an Internet-based course, or have not had computer experience, may find themselves enrolled in a virtual course. These students may begin by asking, "How does this work, and how can I do this?" It is definitely confusing to them when they are told about the virtual materials available on the World Wide Web, especially when they ask, "My syllabus is where?" Just being able to understand the concept of how the Internet works, especially when it comes to Websites and links, is somewhat of a major task.

To reduce the amount of negative impact on the students, the instructor must anticipate the needs and concerns of these inexperienced students. That way, when related questions surface, the instructor can provide the students with the information that the students need, and the instructor can be reassuring at the same time.

Students venturing into this virtual world are often met with technical difficulties, "technoproblems," whether they are student-induced or system-induced — they still cause confusion and frustration. One of the system-induced "technoproblems" we had to work through was a new swipe card technology. The idea was to enable the students to swipe their ID cards so they could receive account information such as their initial password for entry into the system or obtain a forgotten password. As with any new procedure, it was difficult reassuring the students that this was really a terrific idea since it expedited new account dissemination and a forgotten password could take as much as three days to recover in the past. When the swipe card did not function properly, it was a little unsettling for the students and another reason to get upset with technology. One student told me that "it did not 'enable' us instead it 'disabled' us." We must help our students recognize that entering an electronic age is not always smooth but

rather it mirrors our bumpy lives with their ups and downs. The other main "technoproblem" we had to deal with revolved around our log-on procedure. Our students had to log onto our server using a password and then they had to use another password to get their e-mail and still another password to access selected courses. The students induced their own problems by creating three separate passwords instead of following the suggestion to use one password for all. Therefore, the student would either forget which password was created for which access or they could not remember their passwords at all. We also had combined system-student-induced "technoproblems" when students tried to first set up their access accounts from home. We had to surmount hardware and software interface problems as well as user inexperience on the part of the student trying to connect. At times, the students were not sure that this "virtual stuff," as one student put it, was worth the effort to learn. Instructors become frantic when the technoproblems interfere with their course especially when they have gone to great lengths to make the technology as transparent as possible.

Shock Stage

The students soon try to access the course materials, and after surmounting all of the technical difficulties that they encounter, they enter the "Shock Stage" when they realize they "Got in!" They are accessing the Internet, and the computer commands that they type in are actually carried out! It is a good day when students' access attempts run smoothly and they are able to obtain the Internet-based coursework without a glitch. I have students who will call to tell me they got on and sometimes that necessitates them hanging up their modems and getting off to call me. It is at this phase that the students become more comfortable with the technology barring other technoproblems sending them back through this phase.

Timid Stage

From the "Shock Stage," students progress right to the "Timid Stage" where they are happy to be accessing the Internet and their course materials, but they are tentative about the course materials and how they will manage this new learning experience. At this point, the students may also start experiencing feelings of isolation when they become aware that they don't have a visual contact with other students in this virtual course.

As before, the instructor needs to anticipate this stage. Setting up a listserv or Web site, which includes a Frequently Asked Questions (FAQ) file, and initiating a "get-to-know-your-virtual-classmate" activity may be the answer. There are many activi-

ties that have been used for this cultural climate-building exercise. The one that has worked best is having each student create his or her own Web page with a picture (at least) and brief description of themselves. Depending on enrollment, the instructor can create a photo page with a two-sentence descriptor about each student under his or her photo. If you are lucky enough to have a small class, each student must visit all of the Web pages and dialogue with each of the other students. If you use conferencing software, you can create a folder for each student. The students are then directed to note one or two things about each of the other students in the course from their interactions and then place their comments in each student's individual folder. It gives them a sense of "group." Establishing a sense of community among the students is a critical factor.

Frustrated Stage

Since virtual courses rely on computer technology, glitches occur, as they always do. Glitches cause students to quickly move to the "Frustrated Stage." Although the glitches can take various forms, a few of the most prominent ones are discussed here.

One of the biggest problems for students is the seemingly simple task of accessing the Internet. Some students travel to campus to access their materials on the Internet, but there are no computers available for them because it seems they chose a time that everyone else liked. If the students are attempting to access the Internet from home, they cannot get in via modem, or they get disconnected after they get to the Internet. If the students have a lesson to submit or an electronic communication that must be sent, and they cannot do it at a certain time, the student's frustration level increases exponentially.

It is also frustrating to students when the instructor does not respond in what the students perceive to be a timely manner. This is a problem for new instructors because they do not set specific parameters, which are told to the students, to manage the electronic communications (e-communications) necessitated by the virtual course format. Before learning the ropes, the authors experienced the downside of not having time parameters. For example, one student sent e-mail to the instructor at 4:00 a.m.; when the student happened to see the instructor on campus at 9:00 a.m. on the same day, the student expected the instructor to have already read the student's message.

To prevent situations such as this, e-communications must be specifically addressed in the course syllabus as a way to decrease the frustration aspect for the students. Setting e-office hours also helps to ease the students through this stage, especially when it comes to instructor-student communication. E-office hours are any office hours held in any electronic format (e.g., e-mail, video conferences, audio conferences, chat rooms).

As far as frustration caused by not being able to access the Internet, one of the most basic things that the instructor can do is alert the students to the possibility of the problems. The instructor may also want to contact the various computer labs on campus, which have Internet connections, and find out when the busy times are.

Eureka Stage

After all is said and done, students finally reach the "Eureka Stage." The students say, "It's over!" They realize that they have successfully completed a virtual course. It is very rewarding when the majority of students want their remaining coursework to be offered in this format as well. There is also an added benefit to the university; it is able to attract students who need to take a course for professional reasons, but who do not have the time or flexibility to enroll in a traditional university course.

The Internet has opened new territories for pioneering when it comes to university courses. Virtuality is impacting the educational lives of instructors and students. As an instructor, it is important to create exceptional educational climates for students. Instructors must use all of the power of the Internet to develop stimulating learning environments. Students must be willing to enter this new arena and explore its possibilities. Together, instructors and students will build the future of education on the Internet. ■

Resource List

Note: These sights were active and accessible in October 1997. There are no guarantees that these sites will remain active or continue to contain the information we located at that time.

Interactive Learning Connection-University Space Network Pilot Project. [Online] Available http://www.kcc.ca/project/library/ILCpilot/structur.htm, November 5, 1997.

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