Abstract:

With the growth in numbers of students taking Web-based classes comes an increasing need to better prepare students to succeed in the on-line environment. The University of Central Florida’s Course Development & Web Services unit has recently unveiled the first version of a support tool for on-line courses, The Pegasus Connections Disc. This CD-ROM was produced to meet four specific needs: software tools needed for on-line learning, tutorials on essential computer and Internet skills, access to important campus information, and an automated connection to the campus computer network.

“[N]etwork scholarship provides higher education with a unique opportunity to reach any learner, anywhere, at any time.” (Oblinger and Maruyama, 1996)

“Just-in-time learning” is a goal often touted by proponents of on-line courses. Unfortunately, technical support issues can reduce this goal to just-wasting-time, not-learning.

The University of Central Florida’s Course Development & Web Services unit has recently unveiled a “just-in-time” support tool for on-line courses, The Pegasus Connections Disc. This disc was produced to meet four specific needs: software tools needed for on-line learning, tutorials on essential computer and Internet skills, access to important campus information, and an automated connection to the campus computer network. The story of the The Pegasus Connections Disc provides insights for other organizations wrestling with technical support issues in on-line learning environments.

Background

The University of Central Florida (UCF) began offering on-line courses in fall semester 1996 with 152 students in nine classes. As of fall semester 1998, 6,586 students were enrolled in 85 classes.
“technical problems” as a difficulty faced in teaching on-line. (Dziuban and Moskal, 1998)

In the face of growing numbers of on-line courses and students, a decision was made in spring 1998 to provide a support tool for on-line students.

“Qualitative survey data reveal(ed) that a substantial number of students taking web-based courses have CD-ROMs in their home computers. Personal computer equipment costs are decreasing and most computer systems come with CD-ROMs. The computer system standard for on-campus labs and faculty purchases includes CD-ROMs.” (CD-ROM Proposal Excerpt, 1998)

With the input of instructors, support departments, and university administration, the two units responsible for on-line courses at UCF (Course Development & Web Services and the Center for Distributed Learning) proceeded in developing a learner support CD-ROM.

**Development Process**

It was decided to produce the first version of the CD-ROM for fall semester 1998 distribution to on-line course students in order to address the growing technical support needs as soon as possible. This pilot version would be distributed free of charge. Following an evaluation, the CD-ROM would be revised and made available at cost to students through on-campus venues.

Numerous logistical and developmental hurdles could cause the development of the CD-ROM to exceed the proposed fall 1998 distribution goal if a traditional development process was followed. Therefore, a decision was made to proceed with a “parallel processing” approach to development. Many elements were developed concurrently.

Milestones in the development process are noted below:
(not to be construed as sequential steps)

- establish essential competencies for on-line students based on the experiences of instructors, students, and support staff
- decide on format of tutorials, information, and assessments (i.e., HTML pages v. computer based training authoring language)
- recruitment of additional instructional design personnel to develop tutorial content
- naming of CD-ROM
- creation of tutorial and campus information content
- selection of browsers, plug-ins, and other essential software to include
- development of software installation process
- creation of cover art
- design of packaging materials
- design of assessment function
- outsource programming of assessments in Authorware
- outsource duplication of CD-ROMs and packaging
• programming of content
• testing of CD-ROM installation and usability
• revising and updating of content

Version 1.0

The first version of the Pegasus Connections Disc contained a multi-media welcome message, current browser software, browser plug-ins used by on-line courses at UCF, image-rich campus information, tutorials on essential computer and Internet skills including demonstration videos, and interactive assessment materials on computer and Internet skills.

This pilot version was distributed by mail to students in fully on-line (“W”) courses and in person to students in partially on-line (“M”) courses.

Evaluation and Revision

During late fall 1998, the Pegasus Connections Disc underwent evaluation and revision for a slightly upgraded release (version 1.5) for spring term 1999 and a significantly upgraded release (version 2.0) scheduled for summer term 2000.

Version 1.5

Based on the title of the Pegasus Connections Disc, some students reported an expectation for version 1.0 of the disc to automatically configure their computer to connect to the campus computer network (colloquially referred to as “Pegasus”). Version 1.5 provides this automatic configuration for PC and Macintosh users at the click of a button.

In version 1.5, a graphical menu was added that automatically runs when the CD-ROM is inserted into the computer. This increases user-friendliness for PC users and facilitates the selection of either the welcome message, the software installer, the campus computer network connection, help, or the CD-ROM content.

In order to help students connect their needs with the solutions provided on the CD-ROM, several features were added. Students have the opportunity to complete three short questions which address the students’ prior experience in on-line courses, their preferred learning style, and their comfort with computers and the Internet. Based on their answers, students are provided with a printable “prescription” for the sections of the CD-ROM which they may find most useful. A sitemap, expanded text index, and descriptive “mouse-over” text for each of the four main content sections were also added.

Additionally, attention was given to building in features that instructors could require their students to complete in order to verify that the students have developed certain skills needed in their course. These features included a revised twenty question assessment of essential skills with a printable score page and “You Try It” sections for each tutorial in which students can produce evidence that they can apply the skills they’ve learned.

Version 2.0

In development at this writing, version 2.0 is expected to expand onto two CD-ROMs. One disc will contain an executable multimedia presentation on the University of Central Florida and will also contain valuable information on university services for students. The second disc will contain all of the software and tutorials. Distribution and introduction of the Pegasus Connections Disc at new student orientations is being considered.
Lessons Learned

The Pegasus Connections Disc project has been a learning experience for all involved. The lessons learned by the University of Central Florida in producing version 1.0 and version 1.5 may prove helpful to others interested in providing “just-in-time” support for learners in on-line courses.

What We Did Right

- Go With What You Know: Use existing skills and resources (HTML and Java Script coding / Graphics production)
- Old Dogs Can Learn New Tricks: Learn new media production techniques as needed (Digital video conversion, Director, CD-ROM burning)
- Change Horses Mid-stream: When feasibility diminishes, change plans (Originally planned to write content using Authorware. Changed to HTML.)
- Know Who Your Friends Are: Outsource work as needed (Contracted Authorware programmer, recruited part-time / volunteer instructional designers)
- Do A Good Deed: Commit to technical support (Software install process was problematic on some computers)
- It Just Keeps Getting Better And Better: Establish an evaluation / improvement plan (Iterative process / formative & summative evaluation)
- “Why Do I Need This?”: Connect need and solution quickly (We responded to the problem of students missing valuable content because it’s importance was not clear.)
- First Things First: What will the perceived use of this tool be? Does it meet that need? (We responded to the perception that the CD-ROM would auto-connect to the campus computer network)

We’ll Know Next Time

- First Impressions Count: Does the CD-ROM “turn people off” at the beginning? (Problems with the install process frustrated some PC users.)
- Share the Good News: Develop a plan for marketing and explaining the CD-ROM to it’s intended audience. (Many students were unaware of the existence or the functionality of the Pegasus Connections Disc.)
- Play Well With Others: Collaborate with existing institutional technical support personnel. (Coordinate technical support and develop “work-around” solutions together.)

Notes


