

Enterprise Computing: Bridging the gap to Generation-Y with RDz and LINUX Web

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Generation Y Learning Paths. . . .

Today's Generation-Y student (born between 1980-1995) has grown up in a different environment than most of us who comprise IT Academia. Consequentially, Gen-Y students have different ways of learning about technology, which our traditional teaching methods, particularly in the Enterprise Computing area often fail to support. While Gen-Y students often understand new technologies much more quickly than their older counterparts, they also tend to become impatient more quickly, and are less able to follow long procedural exercises which we rely on to teach many Enterprise Computing topics (2). Gen-Y students' preferred learning environments also combine teamwork and technology (1) and their experience with computing is much more visual, creative and self-directed (5).

How we bridge this gap

In order to address this gap in learning styles, our Enterprise Curriculum focuses on the Rational Developer for z (RDz) and LINUX/Web environment. RDz provides a rich GUI-based development environment, built on Eclipse—an open source technology. Its multitude of windows and views fits the multitasking environment that young people are used to. It's a step beyond the traditional character based ISPF/TSO environment that requires moving through a number of screens to perform tasks. When the students can see the status of their project, database, program, JES output and file directories all on one screen, they have a much easier time integrating the information and solving programming problems.

Creativity and Multimedia

Several authors have also noted that Gen-Y have a much more personal relationship with various types of media—video, audio, graphics (5) and they like to include these items in their projects. We incorporate several LINUX Web projects hosted on our IBM z900 mainframe development into our curriculum. Rather than constrain the project with specific guidelines, we offer more general project guidelines, and allow them to choose their own themes—Some student examples from Fall 2008 Enterprise Class Using Web Development include a website dedicated to selling classic children's Christmas Books, a website developed to sell products which can be seen on a popular TV show and a website dedicated to selling every college guy's dream vehicles. Further, students are encouraged and rewarded for dressing to match their theme for the team project presentation. This approach to the teams encourages that "community" that is important to Generation Y students (6). Further, creating Web projects are motivational. We plan to increase the use of technology using wiki's, communities and other community techniques to work with students.

Including Survivor Skills

In order to ensure that the students will be able to also operate in a traditional mainframe environment, we do include five weeks of more traditional topics on ISPF, JCL, VSAM, file management. These topics are essential skills for initial entry into a z Series environment. In addition, a number of "z Series Advantages" topics are researched by students and discussed in class including Parallel Sysplex, RAS, Total Cost of Ownership, Green Impact, etc. The IBM Academic Initiative introductory z/OS materials include these topics. Outside speakers provide the strongest message supporting z Series advantages.

Summary

Attracting students for the z Series environment is most challenging—yet it can be very rewarding. IBM's efforts to create a "modern" application development environment provide an opportunity for faculty members to re-energize students to be excited about this environment. By addressing Gen-Y learning styles, we have had some success at the University of Arkansas in attracting students into our mainframe concentration. Our emphasis on "application development" and teaching these concepts using RDz and Linux/Web has paid dividends in attracting students to the zSeries platform. Our fall 2008 enrollments for our introductory zSeries computing course more than doubled from fall 2007 offering—27 undergraduate and 19 graduates students.

References

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(6) Richard McManus, "Knowledge Mangement for Generation Y", ReadWriteWeb, June 24, 2004