Scaffolding for Digital Curation Education: A One Week Unix Fundamentals Course

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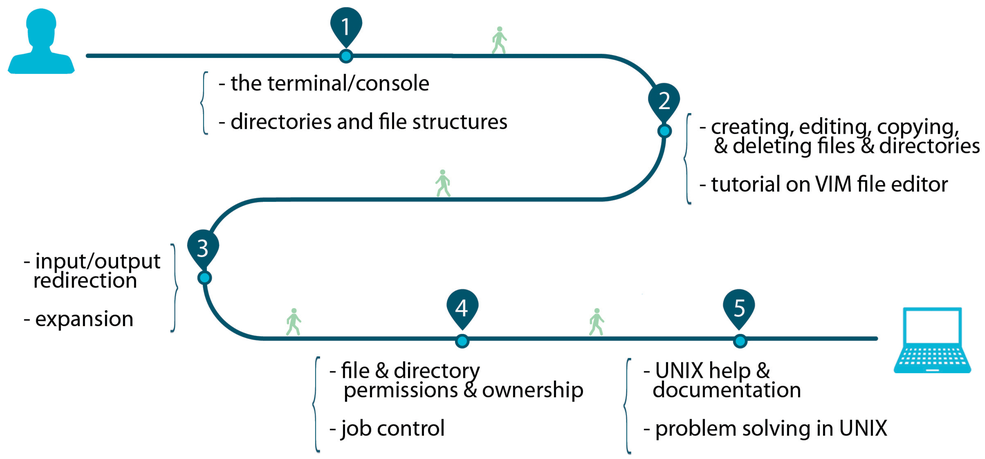
Abstract

As the demand for digital curation skills continues to grow, so does the need for an efficient way to teach digital curators how to interact with Unix based computers and servers at the console and terminal level.

The major challenge with teaching these skills is the amount of time it takes for instruction since there are too many fundamentals to teach in a weekend workshop yet not enough for an entire course. Thus, we proposed a week long scaffolding course to teach students the fundamental tools and processes to successfully interact in a Unix environment.

We will teach students how to perform commands such as changing directories, moving and copying files, compressing folders, and altering permissions in the Unix environment. This will give students some basic preparation for digital curation work and for the (4) intermediate and advanced courses in digital curation and data management offered by the iCamp Project at the University of North Texas.

Learning Modules



Job Postings

A job posting analysis was conducted in the iCamp Project to determine the skills needed for digital curators and data managers. Of the 208 total jobs harvested, 28 had some requirement for knowledge of Linux and/or Unix. These are a few examples of those jobs:

Assistant Professor, Digital Initiatives Librarian
Technical proficiency with programs and platforms such as Unix/Linux, XHTML, XML, XSLT, CSS, Oracle/SQL, PERL or PHP, and experience with digital repository platforms

Digital Library Repository Developer
Demonstrated familiarity and comfort working with various operating systems such as UNIX/Linux, Windows, and Mac OSX

Scientific Data Management Specialist
Experience with LINUX/UNIX and scripting

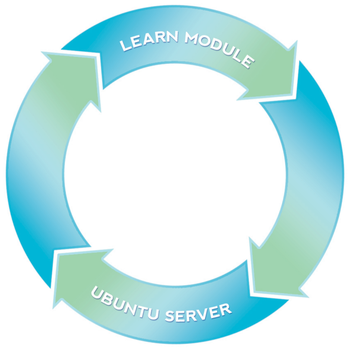
Assessments

Four separate assessments will be used to gather information from and about students regarding the scaffolding course.

1. Pre-Scaffolding Course Self-Assessment: We evaluate the students' proficiency & confidence with Unix OS and programs before the course begins.
2. Post-Scaffolding Course Self-Assessment: Upon completion of the course, the students are surveyed about their experience with the course.
3. iCamp Project Course 2 Performance: We monitor how the students perform in course 2 with Unix-based assignments.
4. Post-Course 2 Assessment: We give the students a final survey to evaluate whether the scaffolding course was useful for course 2, and to probe for future improvements in the course.

Implementation

To offer this course we used a combination of two systems: Blackboard Learn and an Ubuntu server. This was done so that students could learn about the Unix operating system and program and then practice what they learned on the server through exercises.



Future Improvements

Based upon the feedback we receive from the students upon the immediate completion of the scaffolding course and then the completion of course 2, we will make adjustments to the content and practice exercises offered .

We anticipate having to rework the content in a few sections so that students may follow along with the course more effectively.

We also anticipate the need to generate more exercises depending on student feedback.