

Developing Information Fluency for the Humanities Student A Collaborative Effort

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Abstract

Saint Mary's students use a self assessment tool to benchmark their current level of information fluency during their first two weeks on campus. This assessment is not as useful as it could be without resources which allow students to develop their information fluency. Saint Mary's recognized that the College had few resources to meet the needs of those students who will do research in a networked environment but never program a computer. A research librarian and a member of the computer science faculty collaborated to develop a course for these students entitled "Research and Resources in a Networked Environment." This paper discusses the history of the course as well as the goals, content and assignments. The problems faced in implementing the course will also be addressed.

Introduction

When the Teaching and Learning Technology Roundtable (TLTR) was established at Saint Mary's, the steering committee recognized that defining and developing student information fluency (IT fluency) should be a priority. Many hours of work by a subcommittee chaired by Prof. Emeritus Peter Smith led to the development of a self assessment tool which students could use to establish their current level of IT fluency and to plan for enhancement of their IT fluency. This work was discussed in Prof. Smith's paper "Assessing Student Fluency in Information Technology." [4, pp. 222-233] This assessment tool was first used in the fall of 2001, when all first year students were asked to consider their current level of IT fluency. The steering committee of the TLTR, however, recognized that the opportunities available for students who wished to improve their level of fluency were limited. Saint Mary's offers substantial courses in computer science; the Department of Information Technology regularly offers no credit workshops to help members of the community develop skills. In addition, there are work study opportunities for those who wish to work more deeply with technology. However, opportunities for the typical humanities student seemed to be lacking. Such students are usually not interested in taking programming courses nor in working for Information Technology. If they do enroll in a workshop, it is just so that they can learn the skills needed to word process a paper or produce slides for a presentation. This hardly prepares them to be information and technology literate citizens. It seemed clear that Saint Mary's was not meeting the needs of the student who will use a networked environment for her work but never program a computer.

At the same time the discussion on student IT fluency was taking place, reference librarians were indicating that the typical Saint Mary's student was lacking in research skills. There are virtually no first year courses in which students are expected to do extensive research projects. More

typically, these projects are required in the junior or senior years. Students arrive in the library looking for help, with no good idea of how to identify and evaluate printed materials, much less those found in electronic form. While our students are indeed proficient in e-mail and ordering items on line, they have received little training in how to efficiently find information in a networked environment, how to evaluate this information and how to incorporate it in a research project.

The TLTR steering committee saw a golden opportunity to develop a course which would explore the nature of research in a networked environment and help humanities students develop their IT fluency in appropriate ways. Julie Long, a reference librarian who serves on the TLTR steering committee, and Mary Connolly, from the computer science faculty, joined together to develop the course, supported by an internal COSTAR (Collaborative Study and Research) grant from Saint Mary's.

Course Content

The course is intended to be a project-based one, consisting of lectures and demonstrations culminating in a web-based portfolio exploring one of the themes of the course. It includes: a study of the evolution of the networked environment; a study of the ethical issues involved in being part of a networked environment; searching, accessing and critically evaluating resources; a review of copyright and citation issues; and publishing on the Internet. The course carries one credit; classes meet once a week. Class time is not devoted to building skills. Students develop the necessary skills, such as learning how to use the required software packages, outside of class time, with the help of specially selected student tutors.

The first class is devoted to computer basics, making sure that students know the essential vocabulary. Students work through an activity in which they find the answers to questions such as:

- How is computer memory measured?
- What kind of files consume more memory, on average, than graphics files?
- What is meant by bandwidth?
- How is the clock speed of a computer measured and what does it mean?
- What is the typical memory requirement for one small drawing?
- What is the typical memory requirement for one three minute music file?
- Which might speed up your computer - more RAM or a larger hard drive?
- What is a ping value?
- What does it mean to download a file?

While we assume that the students have been using computers for years, our experience shows that many do not really understand why their computer might be slow, why they should know something about the operating system on their machine or even what they should look for in purchasing a computer. This first class is designed to help answer these questions.

The second class is devoted to Internet basics. Students learn how a DNS address is constructed. The client/server software model is explored, and the World Wide Web is discussed. Students,

of course, have been on the Web for years, but we try to give them some hints to make their browsing more efficient. Another activity is introduced in which students answer questions such as:

Why is the heterarchical structure of the Internet a better organization structure than a hierarchical structure?

What is the difference between an IP address and a DNS address?

What is the first thing you should try when you see a 404 Not Found error message?

What is the College's Computer Usage Policy? Note: This requires students to find it on the Web.

What is the term of the day on www.webopedia.com?

Students are assigned readings on information to prepare for the next class. [3, pp.3-20], [5,pp.31-50], [6,pp.27-29] In addition, the semester long project is begun. The project is divided into seven milestones; the first, due at the beginning of the third class, requires that students select a topic for an essay. Guidelines are given so that the essay will be in keeping with the themes of the course.

The third class explores the nature of information. Working through an activity, the class develops a shared definition of information and explores the differences between data, information and knowledge. The information cycle is presented, and students are asked to keep a journal of their information needs over the coming week and how they solved them.

The next class fully explores the need to evaluate information found on Web sites. Students look at educational sites, commercial sites, governmental sites, organizational sites, biased sites and bogus sites. An evaluation check list is used to rank the usefulness of five sites in finding biographical information on Shakespeare. Search engines are explored, and students must find four Web sites related to the topic of their essay using at least two different search engines. To complete the second milestone of the project, students must evaluate the four sites, using the evaluation check list.

By the next class, students should be able to present some of their Web site evaluations. The class then explores the various types of electronic resources and differentiates between these types, i.e. Web sites versus Web-based databases, periodical indexes versus online catalogs, etc. Students become acquainted with electronic journal indexes and learn how to classify sources as primary or secondary. They also classify periodicals as scholarly or popular; our experience has been that we need to do this. Students do not necessarily understand the difference. Online catalogs are also considered. A succession of activities helps students understand these concepts; they categorize a variety of publications and defend their decisions. Other activities help students learn how to structure an effective query. The activities are spread over two class periods. For the third milestone, students are required to use at least two different periodical indexes to find four articles related to their essay topic, at least two of which must come from scholarly journals.

The next two classes are devoted to copyright laws, fair use and proper citations. An interesting class activity at this point explores identifying plagiarized texts. For the fourth milestone, stu-

dents are required to prepare an annotated bibliography of the articles they will use for their essays. The fifth milestone consists of the written essay.

The next part of the course introduces students to the principles of visual communication. Students will eventually create a Web page for their project (milestone 6), but first we want them to be introduced to good design principles. At this point we consider symmetry and balance, proper utilization of space, texture, color, unity and variety, etc. Class time is spent looking at a variety of Web sites, some well designed and some which need help! The basics of HTML are introduced before students learn to use Dreamweaver. All of this takes about three class periods, with additional help from the student tutors outside of class. A fourth class is devoted to graphics and animation. The last class is devoted to the final milestone – presentation of each student's project.

Problems

Although it is clear to the reference librarians and the faculty that many humanities students really do need to work through the material of this course, students do not necessarily feel they need to, until that senior project is upon them. At that point, the librarians are giving a good deal of one-on-one help. We were first given permission to offer this course in the fall of 2002. We initially felt that the course should be restricted to first year students, since those students would probably not have other research projects during the semester. Since the course is a one credit course, we decided to start it just after the two session introduction to information technology which is required of all first year students and takes the first two weeks of classes. The problem was that by the third week of class, no first year students felt like adding another credit hour to their schedule; they were sufficiently overwhelmed at that point! Hence, we did not get to teach the course.

For the spring semester we opened the course to students of all four years. However, we did not do a good job of making this new course known. Although several advanced computer science students noticed the offering and asked questions, the humanities students ignored it. Once again, we did not have enough students to run the course.

For the fall, 2003 semester we are advertising the course in a number of ways; as of early March we already had interest. This time we do expect to teach the course. At this stage, it is still considered an experimental course. Should we be successful at attracting the numbers of students we hope to attract, we have several problems ahead of us. Since this is a collaborative course, both instructors are essentially carrying the course as an overload. There currently is no formal way for a reference librarian to teach a course; while such work is entirely appropriate and has been done in the past, it does put a burden on the person involved. One credit hour courses are difficult to fit into the standard faculty load at Saint Mary's, since the usual load is three 3 credit hour courses one semester and four 3 credit hour courses the other semester. We recognize that over the long term, we can not expect the same people to fit this in every semester as an overload. Also, we would love to get to the point where we needed more than one section. Another unresolved issue is which department should claim the course. We have been reluctant to list this as a computer science course since the intended audience is definitely not computer science

students. Currently, it is listed as a special course; however, if it is to be made permanent, it will need to go through a review process and be claimed by a specific department.

Looking Ahead

In many ways, our students will help us with IT fluency. Each class comes to Saint Mary's more computer literate than their predecessors. However, most do not understand the implications of working in a networked environment. Although most students have spent a good deal of computer time surfing the Web, shopping, sending messages, etc., they still need help in learning how to use technology for the real work of an academic. While the content of this course may change in years to come, it seems clear that the need for such a course will remain.

References

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