Spanning the University to Improve Information Literacy e-Instruction

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Background

In 2005, Miami University embarked upon an examination of integrity, forming an Academic Integrity Committee[1]. The Committee sponsored a survey administered by Duke University's Center for Academic Integrity in Winter 2005 and conducted a series of focus groups in Spring 2006. Results indicated that while failure to practice some types of academic integrity was no worse than other institutions, academic misconduct was nevertheless widespread at Miami, such as data that suggested that over half of our students report regularly cheating (e.g., working on assignments in ways not sanctioned by the professor).

The Committee's report stressed the need for the University to strengthen the ways in which it communicates its expectations of students through a variety of avenues, and one of the eight recommendations in the report was to develop online instruction focusing on academic integrity[2]. Online delivery of instruction was selected because it avoids cramming content into already-existing class schedules, circumvents limitations of classroom space and instructional staff needed for new, "in-person" instruction, and ensures that information is consistently delivered to entering students. Over the years, the Miami University Libraries have developed two products—Miami eScholar and iQ (Integrity Quickstart) to develop basic competencies in research and academic integrity.

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Vision (Miami eScholar)

The goals of the Miami eScholar project were to create readings and exercises that could be completed in one to two hours, freeing up class time that might otherwise be consumed by reviewing basic information about ethical practices of identifying and using information, and to provide a common framework for more advanced discussions of academic integrity issues. This tutorial was intended to address academic integrity in the broadest possible terms. Not infrequently, people groan at the phrase 'academic integrity', assuming that it is a code word for 'don't plagiarize.' Although avoiding plagiarism is key part of academic integrity, the project was also intended to touch on how to identify the best search tools, search strategies, and information sources, in addition to citing information—all of these competencies are necessary to create sound, quality research.

Initial Development (Miami eScholar)

The development team consisted of 4-5 librarians who had background in instructional design, web development, graphics manipulation, and programming. Membership on the development team drew from librarians who had previously worked on online tutorials integrated into the curriculum, including ENG 111 (Miami's first year composition course), EAS 101 (the introductory course for the School of Engineering and Applied Science), and BMZ 115 (an introductory course for the botany, microbiology and zoology departments).

The University obtained financial support for its academic integrity issues from an American Association of Colleges and Universities (AAC&U) grant. Funding supported the acquisition of a dedicated server for the tutorial, christened 'Miami eScholar,' Macromedia software for the developers, and staff release time.

Miami eScholar consisted of six readings on topics including: Defining information needs; Finding and evaluating resources; and Citing and ethical use of information. Each reading contains embedded self-check exercises intended to help students identify their comprehension of the information presented. A PHP script randomly selects three questions from a MySQL database of questions containing multiple questions covering the main concepts in each section, and Ajax technology displays a response to a question, in real time, to users when practicing the quizzes.

At the conclusion of all readings, students were asked to complete a final quiz. To minimize chances of cheating, the final quiz also uses PHP to randomly select questions about a particular topic, and the order of the multiple choice answers is also randomly selected. Students who incorrectly answered a question were given two additional opportunities to answer a similar question correctly. In the event that students were able to answer questions on 15 of the 18 topics correctly, they were emailed a certificate of successful completion.

One concern about Miami eScholar was that it should speak effectively to students, present content at an appropriate level, take advantage of the multimedia environment, and avoid technology that presents accessibility issues (both for populations with disabilities and the general population-- another tutorial that had been recently deployed by the University had used a version of Flash that was not supported in public computer labs, frustrating many students).

An opportunity to obtain a student perspective came when the Interactive Media Studies program offered the use of its capstone class for the Miami eScholar project. The capstone classes typically develop a digital project for an external client (recent examples of clients include the Taft Museum, Proctor & Gamble and Cinergy). Members of the 19-person class initially examined other online tutorials on research and academic ethics to develop a list of best (and worst) practices, and then used these as a lens with which they could examine Miami eScholar and suggest edits and enhancements. Following this assessment, the class split into student-led teams that focused on different parts of the project. One group developed testing instruments and conducted user testing and the other planned, filmed, edited, and produced video clips.

IMPLEMENTATION (MIAMI eSCHOLAR)

Miami eScholar launched in Fall 2007 as a pilot project integrated into introductory classes in the School of Engineering and Applied Science and the Farmer School of Business, two of the six academic divisions at Miami. Full implementation began in Fall 2008, when the tutorial previously used for the first year composition course, English 111, was replaced with a version of Miami eScholar. This course enrolls approximately three quarters of Miami's entering students, with two-thirds of the sections of this course adopting Miami eScholar. In Fall 2008, 1,470 students completed the readings and the final quiz. Of this group, 1,450 (98.6%) passed the final quiz and received a certificate for successful completion, but only 233

(15.8%) answered all questions successfully. The development team interprets the ability of the majority of students to pass the quiz, but not answer all questions correctly, as demonstrating that students need instruction in the area of research skills and academic ethics.

ASSESSMENT AND CHALLENGES (MIAMI eSCHOLAR)

In Fall 2009, sections of the first year composition class dealing with digital writing participated in eScholar, marking the first time these sections have used a library tutorial and enlarging the reach of our instructional programming. However, attempts to uniformly introduce eScholar to the entire population continue to be a challenge. Many segments of the University community think a tutorial is a great idea, as long as they are not expected to give up time to support it.

Some customized development has taken place, with faculty from the Department of Spanish and Portuguese helping to develop a version which includes information unique to their discipline (how to work with online translators). The Development team hopes this product will be a model for future collaborations with faculty in other areas. These collaborations should help improve eScholar, such as a concern that its length and text-heaviness might be off-putting to students not assigned to complete it.

VISION (iQ)

Since many students at Miami are not exposed to eScholar, the Development Team shifted gears to a product which would cover much of the same information (but not all of it), utilize more multimedia, and take a lighter approach to the content. Since this was envisioned as a resource that might be assigned as a supplementary reading or used voluntarily by students, it would contain self-check exercises, but not a final quiz. This project was named iQ (Integrity Quickstart).

DEVELOPMENT AND IMPLEMENTATION (iQ)

iQ was created through a partnership between the Libraries, University IT and Student Affairs, with instructional developers from Miami's IT Services contracted to translate and condense information from Miami eScholar into more concise, media rich, humorous form, in consultation with librarians. Initial discussions focused on using a look and feel similar to Common Craft instructional videos. As the project developed, presentation tools from Prezi.com were used to give iQ its visually appealing, non-linear structure. The review process included faculty consulted by IT Services Staff, as well as Student Affairs personnel involved in academic integrity issues.

ASSESSMENT AND CHALLENGES (iQ)

IT Services staff were unfamiliar with some of the conventions of academic culture including sensitivity to diversity issues. In the early phases of this project, the Libraries expressed concerns over stereotypical cartoons used to indicate male and female characters, as well as the lack of persons of

color. IT Services staff were surprised by these concerns, and even resisted our request to make changes, insisting that their supervisor didn't see anything wrong with the depictions of characters in iQ.

An additional problem was the initial timeline accepted by IT Services proved inadequate, with the developer taking on additional projects that prevented timely completion of each phase of the work, as well as timely fixes to even simple problems such as minor typographical errors. Ultimately, the work was more than a year overdue when the initial product was turned over to the Libraries.

Also of concern was that IT Services staff showed versions of the product to faculty and staff without providing the Libraries with an option to review it in advance. This created confusion over ownership of the project and resulted in the project changing in ways not desired by the Libraries. While the instructional design staff are talented, their inability to effectively anticipate their workload and meet deadlines and failure to give the Libraries control over our product have led us to decide to take on further development work with our own staff.

Conflicting views on how information should be conveyed are an ongoing challenge, even more so with iQ than with eScholar. One area of dissention is over the most effective way to encourage students to avoid academic misconduct, with members of University administration favoring an emphasis on positive role models, but members of Student Affairs hoping for a presentation that more heavily stresses potential punishments. The current version of iQ attempts to steer a middle course, adopting portions of each approach (and frustrating proponents of each approach).

The use of humor is also an ongoing issue, with some faculty, and Student Affairs, believing that the humor is too childish and trivializes the content; however, other faculty have expressed appreciation for this approach, and prefer iQ to eScholar. We requested that IT Services personnel tone down one component of iQ but we believe that humor is an integral part of iQ, and that those desiring a more intensive and serious approach are best served by eScholar.

Ongoing Issues & Future Developments

As anticipated, it is difficult to achieve consensus on the content and the tone of information included in online instruction. The Libraries continue to believe that the need for a common foundation outweighs the need for consensus—that even those who would prefer different emphases or approaches can build upon a widely-deployed product in their discussions. Although eScholar remains the Libraries' preferred method of introducing students to academic integrity and research competencies, iQ provides an alternative approach. The current version of eScholar relies more on text and less on multimedia than anticipated. The Libraries currently plan to hire a time-limited position to redevelop eScholar to correct this imbalance. With the imminent departure of Miami's current provost, who has emphasized academic integrity and promoted eScholar, perhaps

the most significant issue is the University's future commitment to eScholar, iQ, and other methods of promoting academic integrity.

Endnotes

[1] "First in 2009" is a University-wide initiative leading Miami University to enhance excellence by its bicentennial.

[2] Recommendations available at [http://www.miami.muohio.edu/provost/reports/Academic_Integrity.doc]