Developing Follow-on Information Fluency Experiences for Students Completing a Computer Literacy Course

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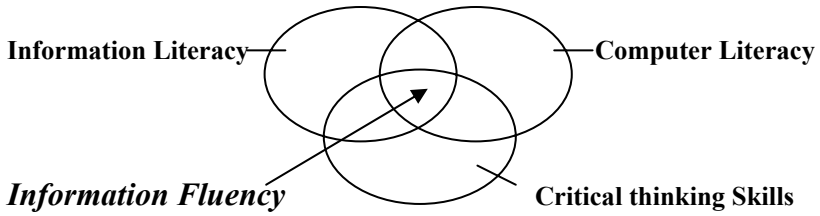
Project Rationale. In the ever increasing complexity of today's world, the liberal arts graduate must be prepared to deal with a variety of issues and opportunities, most of which are influenced by the need to acquire and assess information. The ability to succeed in this environment will be influenced by the quality of the learning experience as an undergraduate. Thus, as we look to the future we must understand the critical nature of providing the appropriate framework for the student to internalize the ability to work creatively in an information-driven society. Indeed, it is our assertion that *information fluency* – the ability to transform data into actionable information -- should be one of the primary outcomes of the liberal arts experience.

But this outcome is increasingly dynamic as information technology continues regularly to reinvent itself over ever-shrinking time cycles. Thus, while the road to information fluency is paved throughout the undergraduate experience, the full destination is a lifelong quest as opposed to a concentrated course of study. That is, the undergraduate experience only sets the stage for a lifelong journey of learning and grappling with an ever-expanding body of knowledge and resources to be accessed and used. Nonetheless, the college experience is fundamental in providing the solid baseline from which such a lifelong learning methodology can be launched.

It is important to realize the dynamic and integrative nature of information fluency as we strive to design appropriate educational experiences for our students. Certainly, a comfort level and basic set of skills in the use of the computer – what we often refer to as *computer literacy* -- provides a necessary foundation. Many of our students – likely a majority of them – obtain computer literacy through courses we offer, self-study, or even pre-college work. The focus of this proposal is on addressing the need to provide students experiences to move them beyond computer literacy to achieve true information fluency.

As we have noted, information fluency is not a destination but an evolving process in which the learner continues to grow in the understanding and use of information. It is a complex compendium of knowledge and nuance, heavily influenced by experience and, of course, technology. The first steps in the process consist (instead of consists?) of information literacy and computer literacy. These skills might be compared to the ability to read a menu in a foreign language. Information fluency can be compared to being able to carry on an intelligent conversation in that language. We believe information fluency

can in fact be viewed as the intersection of technology, information literacy, and critical thinking abilities as illustrated in the following diagram.



In today's environment, it is impossible to divorce information from technology. Thus, we must deal with how technology influences work with information. With each passing year, students come to college with a greater knowledge of computing tools. Thus, their technology skills are improving. As mentioned earlier, many take computer literacy courses (under a variety of names and guises) at our institutions.

Our proposal focuses on how to extend these technology skills to create information fluent graduates. Such graduates will be in increasing demand as we move fully into the digital age. Faced with unprecedented needs for an information-fluent workforce, we believe the existing pipeline of liberal arts graduates is a substantial and highly talented resource that should be playing a much more prominent role in addressing this critical national need. More innovative and expanded educational strategies in information fluency will help facilitate this outcome.

Project Plan. The goal of this project is to design and implement information fluency education experiences that build on basic computer literacy skills. We intend to explore several different possible ways this might be accomplished, including the design of a new course and the use of online learning modules that might be used outside the traditional course structure.

We will design a new course, tentatively called *Introduction to Information Studies*, which will have the basic computer literacy course (or its equivalent) as a prerequisite. By assuming basic computing skills, the *Information Studies* course can concentrate on the development of appropriate critical thinking skills, including the abilities to analyze a problem domain and its requisite information requirements, collect data upon which the required information can be constructed, synthesize such information across disciplinary boundaries, and communicate effectively the results of these processes.

The development of similar intellectual skills have prepared generations of liberal arts graduates for leadership positions in a wide range of career fields. An *Information Studies* course would focus on the development of such skills within the context of the use of information technology as an essential tool. There are many liberal arts graduates who have the requisite critical thinking skills to be highly successful in information technology related careers. However, such graduates may not have embraced, or even been enticed to sample, conventional approaches to computing education beyond the

computing literacy course, which traditionally tend to have a sharp focus on computer programming. We hope to provide a much more relevant and attractive alternative course for students completing the computer literacy course to consider. We believe that such a course will attract students who would not consider a computer programming course.

As we develop an *Information Studies* course, we will adopt a modular design. In this way, smaller than course-sized Web-deployed modules can be made available for information fluency efforts outside the traditional classroom course structure. For example, some of these online modules could be made available for students to use at their own discretion. Or, they might provide material for use by the library staff or information services staff in their information fluency instructional efforts.

We would expect to begin the project this spring and complete the first draft of these materials by the end of summer. We would hope to teach a first offering of the *Information Studies* course and/or make use of selected online learning modules at both Furman and Millsaps during the academic year 2002-2003. By developing a modular learning unit structure, the materials developed will have greater flexibility and be potentially useful to a larger audience. We would make these online learning modules available to colleagues at other ACS schools, and will encourage these colleagues to not only use the materials, but to contribute to an ongoing collaborative development of the materials. The ultimate product would be a collection of online information fluency learning modules available to all ACS institutions.

We plan to disseminate information about the project and call for additional collaborators through the ACS Technology Center and by contacting selected individuals at other ACS institutions ourselves. Assuming a positive response, we would likely propose a two-day workshop, perhaps in spring of 2003, at the Technology Center to hear reports on uses of the materials and collaboratively plan their further development. Note, however, that we have not included this workshop as an official part of the current proposal due to budget constraints.