

**ACS Information Fluency Project**

**Funded by a Grant to the Associated Colleges of the South**

**From The Andrew W. Mellon Foundation**

**FOURTH YEAR AND FINAL REPORT**

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The fourth and final year of the ACS Information Fluency (IF) Program has been an opportunity to extend campus and collaborative projects chosen in the last round of funding, to continue to develop and launch our Information Fluency Journal (Transformation), to participate in the Mellon Information Literacy/Fluency evaluation and to begin laying the groundwork for the next phase of consortial IF endeavors. The ACS IF Program also co-sponsored a symposium about the use of GIS on our campuses in February of this year. We are grateful to The Andrew W. Mellon Foundation for supporting these efforts, which we hope will in the future link with the IF programs at other liberal arts colleges, and indeed we have already begun to work with colleges in the Midwest and northeast via our IF Journal. Our IF Coordinating Committee met April 14-15, 2003 in order to gauge our progress over the 4 years and plan our next steps (see more in the last section below). This report summarizes the activities of the 4 years of the grant, in addition to summarizing Year 4 activities and our plans for ongoing IF activities.

One important feature of our program has been the exploration of a shared vocabulary that could facilitate progress in IF, both on individual campuses and as a consortium.

To this end, we have funded a number of campus and collaborative projects designed to foster collaboration and discussion of where IF fits into campus activities and to enable member institutions to integrate information fluency into the curriculum. As a result of our discussions and projects, we been able gradually to expand the dialogue among key campus constituencies -- faculty, administrators, library, IT and students - as well as realize more concrete results in the areas of:

- IF assessment;
- campus IF discussions;
- campus collaborations and faculty/staff training;
- infusion of IF into the curriculum.

We have accomplished this via:

- a series of annual IF symposia where ACS members have been able to learn about IF efforts at other campuses, compare local strategies, craft consortial programs that would complement local efforts and engage in "big

- picture" discussions about IF in the liberal arts environment;
- the ongoing work of the IF coordinating committee and task forces, each of which has addressed a key area of IF, including discussions of curriculum, partnerships of faculty, librarians and IT staff, assessment and promotion of IF. A major achievement of the task forces has been the administration of a survey of ACS IF efforts, with searchable records available online;
  - funding a number of IF projects and consultations: some tailored to the needs of the individual campuses (while also being replicable elsewhere) and others that are consortial in nature.

As a result of these initiatives, individual campuses have been able to move ahead in IF, while ACS as a consortium has been able to identify some key areas for future endeavors that will continue to promote our progress and enable us to disseminate what we have learned to a wider audience.

## **I. Defining Information Fluency**

In our original proposal to The Mellon Foundation, we defined information fluency as follows:

### ACS IF Working Definition

Using critical thinking skills and appropriate technologies, information fluency integrates the abilities to:

- Collect the information necessary to consider a problem or issue
- Employ critical thinking skills in the evaluation and analysis of the information and its sources
- Formulate logical conclusions and present those conclusions in an appropriate and effective way

Information Fluency may be envisioned as the optimal outcome when critical thinking skills are combined with information literacy and relevant computing skills.

We graphically represented IF as the intersection of three distinct areas: information literacy, computing literacy and critical thinking (see Appendix B).

At the first ACS IF Symposium, Barbara Brown (Washington and Lee) presciently defined IF as "moving target." Indeed, during the four years of the grant period, our task forces have repeatedly come back to our fundamental working definition, even as we were continually grappling with the

complex and fluid concepts embodied in what we call "information fluency," in an effort to articulate the goals of the project to our many audiences, both internal and external.

Moreover, we recognized from the outset that the term "information fluency" might not accurately reflect the combination of knowledge and skills with which our project is concerned. Thus, coordinating committee members have continued to refine our working definition, moving us from an abstract definition of IF to one with heuristic value that can be applied to ACS curricula. Jim Rettig of the University of Richmond, for example, argued in a presentation at the February 2002 symposium that the ACS working definition creates a false dichotomy between "information literacy" and "computer literacy," and that this dichotomy is the result of each of these domains being viewed as the exclusive realm of a heterogeneous group: librarians and technologists, respectively. Likewise, according to Rettig, faculty lay claim to critical thinking as their particular expertise.

Rettig also proposed six essential elements of information fluency (conceptualized as a sequential process):

1. Recognition of need for information
2. Formulation of a plan to obtain it
3. Discovery, identification, retrieval
4. Evaluation and selection
5. Synthesis of knowledge or creation of new knowledge
6. Presentation or publication to an audience

See Appendices C and D for key diagrams from Rettig's presentation.

Susan Hagen of Birmingham-Southern College also presented at the February symposium, where she proposed a developmental IF model, in which students use and experience six basic IF skills in an increasingly complex way as they make progress in their major discipline. Her model is diagrammed in Appendix E.

## **II. The Role of Collaboration**

Throughout our conversations about information fluency, all participants in the ACS IF program have agreed that collaboration among these campus constituencies -- faculty,

librarians and IT staff -- is critical to student and curricular IF development. Such collaboration has thus been a primary focus of ACS IF efforts. Indeed, we consider a major outcome of the grant to have been the opportunity for frank discussions among campus constituencies that have led to a recognition of how to take advantage of faculty and staff strengths and perspectives, laying the groundwork both for ongoing conversations and for productive consortial and campus partnerships.

Moreover, we have learned that IF discussions at the consortial level can serve as a model for conversations that take place on individual campuses. In fact, three campuses (Centre, Millsaps, Morehouse) have held campus-based IF symposia as a way to continue ACS discussions on the home campus. Other campuses (e.g., Birmingham-Southern and Rollins) have institutionalized their ACS IF teams in order to provide some continuity of ACS and local efforts and to continue the conversation on the home campuses.

### **III. Task Forces Summary**

As described in previous reports, ACS established 5 task forces plus a coordinating committee to take on various aspects of information fluency research, planning and programming for the consortium. All 6 groups include representatives from our target constituencies: faculty, library and IT. At the conclusion of the February 2001 symposium, the Coordinating Committee determined that the work of the Task Forces had to some extent converged, so that it was no longer effective (nor efficient) for these groups to work independently of one another. Thus, in the fourth year of the grant, we have mostly called upon the task force membership as a whole for input and feedback, rather than requiring them to work as separate groups. However, each task force did meet separately at the February 2002 symposium and made recommendations for programming during the third year of the grant and beyond. Summaries of their discussions are included below. For fuller reports from each task force, please see links at [http://www.colleges.org/~if/if\\_reports.html](http://www.colleges.org/~if/if_reports.html).

#### Guidelines Task Force.

The Guidelines task force was formed in order to draft formal guidelines and a definition of information fluency for the rest of the groups to use as a resource for common terms and goals. Over the past 4 years, they have created

the ACS working definition of IF, as well as endorsed the ACRL guidelines. They charged the Curriculum task force with developing implementation criteria for the guidelines. In 2001, they drafted the original call for proposals for projects that would implement IF guidelines into the curriculum. At their 2002 meeting, they discussed various possibilities for a second phase of ACS IF programming, including a possible organizational structure for the new phase. They also endorsed the presentations made by Jim Rettig (Richmond) and Susan Hagen (Birmingham-Southern) and their definitions of the role and realm of Information Fluency.

#### Modeling and Promotion of Information Fluency Task Force

This task force was created to form strategies for ensuring that faculty and staff have the necessary training and development opportunities to enable them to integrate IF into the curriculum and otherwise ensure effective adoption of information fluency skills. In 2002, this task force discussed the effectiveness of the current ACS campus IF activities database

([http://www.colleges.org/~if/if\\_surveys.html](http://www.colleges.org/~if/if_surveys.html)) and made suggestions for expansion and improvement. They also proposed: (1) that ACS begin to examine the possibilities for consortial licensing of learning management systems (e.g., BlackBoard) that would provide a platform for ongoing collaborations (2) that ACS explore consortial support possibilities for such GIS and other high-end applications (3) use of IF circuit riders and bringing in high profile speakers, and (4) an ACS student research symposium.

#### Collaboration Task Force

The collaboration task force was formed to promote collaboration among various campus constituencies, examine barriers to such collaborations and propose strategies for overcoming these barriers. In 2002, the group analyzed entries in the ACS campus IF activities database and first round project reports to identify best practices for intercampus and intracampus collaborations and determine the prospects for interconsortial collaboration. They also discussed obstacles to collaboration such as perceived status and changing faculty roles. Among their recommendations were evaluation and assessment of campus IF efforts and ACS funded projects, a centralized repository of IF materials along with assessment materials and more focus on inter-campus collaborations.

#### Pedagogy and Curriculum Development Task Force

This group was charged with considering the integration of IF into courses and curricula. Over the three years of the project, they have focused on identifying best practices and models and on expected student outcomes of courses that adopt the IF guidelines. At the 2002 meeting, rather than developing full-fledged "IF curricula," the group endorsed the notion of creating modular IF units (dubbed "Legos") that were context-free and thus reusable. Such modules could be housed centrally and made available across the consortium. Creation and dissemination of such modules was suggested as a possibility for a second phase of the ACS IF project. The group also stressed the need for IF to become or remain a strategic priority on individual ACS campuses.

#### Assessment Task Force

The assessment task force examined the various options for assessing both student IF abilities and integration of IF at the institutional level. It was determined that the assessment of individual student performance would need to be addressed directly by the individual institutions and that the consortium should concentrate on more general institution-level guidelines for assessment. A major achievement of this group was the development of the ACS IF survey and database of instructional activities. At the 2002 symposium, the Assessment task force focused on the 48 entries that had been submitted to the database, which went online in the fall 2001 semester. This survey, along with explanation and links to the records, can be found at: [http://www.colleges.org/~if/if\\_surveys.html](http://www.colleges.org/~if/if_surveys.html)

This data will be of significant assistance to all ACS campus IF teams. By analyzing these activities, we hope to establish a benchmark by which we can measure our progress as we undertake new initiatives. Second, the database enables us to share these best practices so that all of our members will benefit as we strive to help our students succeed in our current information rich environment. Third, we hope that the results from this survey will help to establish guidelines that might be useful in evaluating and rewarding the efforts of our faculty in this arena.

#### **IV. Symposia Summary**

A key feature of the ACS IF program has been a series of annual symposia where ACS members addressed issues of

Information Fluency, assessed IF project progress and determined future directions for the project. The second and third symposia also provided the opportunity for dissemination of campus-based IF efforts funded by the ACS IF program to a wider audience. Presentations thus served as catalysts for initiatives at other institutions. All three of these events were attended by librarians, faculty, IT staff, students and administrators, with between 50 and 80 total participants at each symposium.

The first symposium, held in November 1999 at the ACS Technology Center (ACSTC), was attended by 60 people. Following a series of presentations from both ACS members and outside speakers, including a keynote from David Brown of Wake Forest University, the task forces were initially assembled and met to discuss their charges. The second symposium, held in February 2001 at the ACSTC, also included the ACS deans, as well as visitors and presenters from other NITLE institutions. Seventy ACS members were in attendance, along with keynote speaker Susan Perry, opening speaker Clara Yu and a panel from Mt. Holyoke, Bryn Mawr and Haverford who addressed the group on the topic of collaborative "techno-pedagogy."

The third symposium, which took place on February 15-16, 2002 at the Emory Conference Center in Atlanta, was attended by 46 ACS participants, as well as guests from the Five Colleges of Ohio consortium, who are also engaged in information literacy activities. Participants showcased projects that apply information fluency guidelines to campus activities. Panelists from Rollins College, Centenary College of Louisiana and Birmingham-Southern College, and panels from the Five Colleges of Ohio discussed their collaborative experiences as well as how they have incorporated information fluency into classes. They also discussed incorporating information fluency into discipline-specific projects.

The task forces discussed progress (see report summaries under "Task Forces" above) and drafted recommendations, including:

- Focusing on curriculum development and creating modules for discipline specific courses
- Developing a repository of best practices
- Involving librarians and information technologists in faculty development workshops

- Creating a student research symposium
- Developing the ACS Web site into an information fluency resource
- Identifying information fluency resource faculty members on each campus
- Investigating consortium pricing for courseware software and training

As a result of the symposium, the Coordinating Committee formulated a request for proposals for major endeavor planning grants and created a new Information Fluency Circuit Riders program (see details in the next section below).

The final symposium sponsored by the IF Program was an event focused specifically on GIS, held at the ACS Technology Center Feb. 28-March 2, 2003). The symposium was co-sponsored by the ACS Information Fluency Program, ACS Technology Programs and ACS Environmental Programs. The IF Coordinating Committee determined that GIS was a good topic to explore as an example of applied Information Fluency, given that it can only be studied by gaining a both certain level of proficiency in information technologies and an understanding of the application of information (geographical data) to a wide range of issues.

Thirty-two participants from 14 ACS institutions met to share information on teaching and research with GIS, as well as to discuss ways to develop and support the use of GIS across campuses at the consortial and national levels. Disciplines represented included: Earth and Environmental Studies, Biology, Archaeology, Economics and Business, Geology, Physics, Modern Languages, Political Science, Anthropology and Sociology, Urban Studies, Instructional Technology, and Library Science. Special guest Bob Churchill, Geography and GIS specialist at Middlebury College, shared information on the training workshops he conducts for NITLE. The goals of this symposium were to:

1. Exchange working GIS projects.
2. Provide "hands-on show-and-tell" opportunities and models for implementing GIS on the campus.
3. Compile contributed materials into a GIS manual that can be used and disseminated on all campuses to further integrate GIS into the curriculum upon return (also posted on line at [www.colleges.org/techcenter/gis/](http://www.colleges.org/techcenter/gis/)).

4. Discuss ways in which ACS and NITLE can support GIS at the regional and national levels.

The symposium began with a brief introduction to the NITLE (National Institute for Technology in Liberal Education) plan for assisting the development of GIS at the 81 liberal arts institutions and the significance of GIS to ongoing ACS Information Fluency programming. The first two sessions were devoted to sharing information on existing projects (such as the "Digital South Project" at Washington and Lee University) and the integration of GIS into the curriculum. A third session focused on strategies used to gain administrative support and institutionalization for GIS on the campuses, as well as connection to the wider campus and neighborhood communities, while the final session considered next steps for GIS development at ACS campuses. For more details, please see our annual report to The Mellon Foundation on the ACS Technology Center.

## **V. Programs: Campus Projects, Planning Grants, Major Endeavors Grants**

### **A. Calls for Proposals and Response**

Having issued a series of calls for proposals from the ACS campuses, the Coordinating Committee met via conference call on a regular basis to make recommendations to the ACS deans for funding of submitted proposals. The Committee issued a total of 4 regular calls for proposals, for which we have received a total of 51 proposals (including re-submissions from one round to the next), of which 43 were ultimately funded. In response to task force recommendations at the 2002 symposium, the Coordinating Committee issued a new call for planning grants for projects of a more comprehensive nature: Major Endeavors Planning Grants (MEPGs). We received 2 MEPG proposals (The Digital South GIS Project and the Journal of Information Fluency), both of which were funded and which are described below. One of these two planning grants yielded a Major Endeavors proposal (the IF Journal), which was also funded. The full texts of both the regular CFP and the MEPG CFP can be found in Appendix F, and a summary of responses to these CFP's and summaries of the projects themselves are in Appendix G. The latter are also available online, along with reports from the principal investigators, now mostly completed, linked to <http://www.colleges.org/~if/>.

## **B. Summary and Analysis of Funded Projects**

The 43 campus and collaborative projects funded through the ACS IF program can be roughly grouped into 4 categories (with some inevitable overlap): IF assessment; campus IF discussions; campus collaborations and faculty/staff training; and infusion of IF into the curriculum. What follows is a brief summary of project goals and outcomes in each of these categories, in an effort to determine next steps and perhaps identify successful models that could be replicated consortially or on other campuses. This analysis is still preliminary, as we are awaiting final reports on projects that are currently ongoing. As with most categorization efforts, this one is necessarily inexact. For example, one project funded at Centre College focused on creating a template for web-based course activities that promoted student IF skills, and is thus included under the "Curriculum" category. However, the grant involved the creation of a web page template (by a team of faculty, librarians and IT staff) and piloting this in a specific course, followed by a workshop for faculty that focused both on the concept of IF and on actual web page creation skills for faculty. Thus, this project also could be classified under "campus IF discussions" and "collaborations and faculty/staff training."

Ultimately, these projects may represent the most important outcome of the grant, as they have served as catalysts for IF progress on individual campuses, and a way for ACS members to actualize what they had learned from the symposia and consortial discussions.

### **1. IF assessment**

Two funded projects were directly concerned with assessment of student IF:

- Furman University, Assessing the "Computer Generation" in Liberal Arts Colleges and Universities
- University of Richmond and Washington and Lee University, Assessing Student Awareness of Core Literacy Resources

Both these projects involved creating instruments to assess certain aspects of student fluency with information resources. Moreover, the Richmond/W&L survey will be replicated at Furman and Millsaps in Spring, 2004, which will give us data from 4 institutions, and we hope that this will provide baseline data that will be useful in planning information fluency programming for students.

Project PI's also plan to use this data as the basis for a presentation at the ACRL national conference in 2005.

In addition, two other instruments came out of the ACS IF program. In a project funded in round 3, (Development of a Journal Review Course Module in Biology, Furman University), an instrument to assess student IF was created to assess student IF before and after use of the module designed to teach students the skills necessary to find and evaluate information in scholarly journals. And at Southwestern University, Sharon McEuen (ITS), who is a member of the ACS IF Assessment task force, created an instrument to assess student computer literacy, a project that had its origins in her work with the ACS group. The result of this survey was the subject of an article by McEuen that appeared in *EduCause Quarterly* 2001 entitled "How Fluent with Information Technology Are Our Students." All four of these instruments have been or will be made available for all ACS institutions to adapt for their own needs.

In addition to these projects, our IF Assessment task force produced recommendation for IF assessment (on which these projects were built). Moreover, we have benefited greatly from the report authored by Jeanne Hubelbank and Patty Iannuzzi, who spoke with ACS staff as well as numerous ACS faculty and staff members about their projects. Some ACS faculty and staff who were funded under the grant also had the opportunity to refine their understanding of how to build assessment into IF projects by attending Hubelbank's and Iannuzzi's October 2003 workshop in Chicago, and ACS is assisting with the planning for their second workshop, to be held in Atlanta on February 6, 2004. (See [www.midwest-itc.org/Share/InfoLitPosters.html](http://www.midwest-itc.org/Share/InfoLitPosters.html) for posters from the event.) At least 12 ACS teams will participate in the 2<sup>nd</sup> workshop, along with teams from the northeast. We are eager to learn as much as possible from these experts, in order to lay a firm foundation for building assessment into future ACS IF programming.

## **2. Campus IF discussions**

Three ACS campuses engaged in campus conversations about IF, modeled to an extent on the consortium-wide conversations that took place at our symposia. For example, at Morehouse College, a group of faculty, administrators, librarians and IT staff used materials and reports from the

ACS symposia as a starting point for creating a "Morehouse model" for integrating IF into the curriculum.

Such conversations, sometimes attended by an ACS staff member or someone with IF expertise from another ACS campus, generally required very little funding and seemed particularly effective for folding IF into ongoing curricular discussions on campuses where there had been little previous discussion of these concepts. One campus reported that the ACS IF project had enabled their community to better integrate a number of related concepts that they had previously discussed piecemeal. Another moved from the general conversation to a series of training sessions for faculty and staff in applied areas of IF such as the use of online databases.

### **3. Campus collaborations and faculty/staff training**

Seven grants involved fostering campus collaborations to support ongoing IF efforts and/or providing IF training for faculty to prepare them for integrating IF into the curriculum. Several of these projects (at Richmond, University of the South and Washington and Lee) enabled institutions to experiment with new roles for students to act as peer mentors in order to provide such academic services as teaching research skills, writing and IF skills generally. Staff were also targeted in some projects, for example, a Birmingham-Southern initiative to combine key academic services (such as writing, speech and technology) by designing an integrated "information services support" model.

Others projects focused more on faculty training, e.g., a project at Birmingham-Southern that paired faculty mentors and their mentees with additional team members from the library and information technology services. Similarly, a Washington and Lee project added IF issues and training to their 2-week "Faculty Academy." This program also made use of trained students to work with faculty during the academic year and to serve as peer mentors for students in courses taught by those faculty members.

### **4. Infusion of IF into the curriculum**

The vast majority of funded projects (about 3/4) fell into this category. Indeed, all funded projects had as their ultimate focus curricular changes, though projects discussed here generally sought to infuse IF elements into specific courses. We divide these projects into two

subtypes: general education (e.g., the first-year curriculum) and discipline-based initiatives. 12 projects dealt with infusing IF into general education requirements, with 4 dealing specifically with the first-year curriculum (at Centenary, Rollins and Hendrix), with later projects building on lessons learned in earlier efforts. For example, a round 1 project at Rollins focused on IF for first-year students, with projects funded later honing in on specific disciplines as well as on senior honors students.

We funded 16 projects that focused on IF in the context of a specific discipline or course: in Business, CS, Biology (4 projects), Environmental Studies, GIS (5 projects), Latin, Music, Spanish and writing. For more about these projects, see the brief summaries in Appendix G, and also the ACS IF website, which contains the original proposals as well as progress reports.

## **VI. Programs: Circuit Riders**

In addition to the new calls for proposals, the Coordinating Committee, at the recommendation of Modeling and Promotion task force, initiated a new "Information Fluency Circuit Rider" program in late spring 2002. The goal of this program is to provide ACS members with concrete examples of information fluency in the classroom as well as develop a consortial network of librarians, faculty and IT staff with experience in addressing information fluency issues. Circuit rider consultations are also another mechanism for disseminating successful campus IF models and results among ACS institutions.

Two successful circuit rides involved members of the IF Coordinating Committee visiting campuses to lead discussions about IF. Jim Rettig visited Birmingham-Southern College on September 16-17, where he met with a large audience (80-90) of students, faculty, librarians and IT staff. He discussed the varying perspectives of different IF stakeholders and how the ACS initiative has gone about synthesizing these perspectives in a way that can serve as a basis for curricular change. In addition to his formal presentation, he met with the same groups in a more informal setting for question and answer and discussion sessions. Participants at the sessions report that Rettig's visit served as a catalyst for ongoing discussions of integration of IF into the curriculum and

the importance of involving all campus stakeholders in these discussions.

On November 5-6, 2002, Susan Hagen visited Hendrix College, where she spoke to a library/technology group and led a workshop that evening with 18 "Journeys" (the Hendrix general education program) faculty. The next day she met with Library Director, Amanda Moore, and the Provost, Robert Entzinger, both of whom reported that her visit was quite valuable for their community.

Both Hendrix groups (library/IT and faculty) discussed the definition of Information Fluency, and the faculty group also discussed specific ways to integrate assignments into the Journeys curriculum. Hagen spent some time discussing how innovative assignments might address the same goals as traditional exams and papers while engaging students in new ways. Discussions focused on what faculty wished to accomplish in their teaching. From there the group moved to thinking about how information fluency dovetailed with their curricular goals. Since Hendrix is looking forward to instituting a course management system, most likely BlackBoard, Hagen used BlackBoard as the vehicle for materials. Participants remarked that this academic common sense and learning centered approach worked well at Hendrix, and the Journeys faculty seems quite open to incorporating IF principles into their courses. The BlackBoard site Hagen created for this visit can be found at [blackboard.bsc.edu](http://blackboard.bsc.edu). Navigate from "course catalog" to "preview" to "miscellaneous" under the categories to "Information Fluency and the Liberal Arts" (IDS 400). Hagen remains in touch with library director Moore, sending along additional materials as she encounters them.

## **VII. Dissemination and The ACS Information Fluency Journal**

Although our initial goal was to define and promote information fluency on the ACS campuses, our efforts have gained attention from a number of other institutions that are working on the same issues. Our web page has been cited often, and we have received a number of requests to reproduce our definition of information fluency with its accompanying graphic (e.g., from librarians at the University of Buffalo and the Southeast Kansas Library System). We are heartened by the attempts of others to build on what we feel is a still a work in progress, though we believe that, thanks to the support of The Andrew W.

Mellon Foundation, we have come much closer to defining (and thus understanding) what it means to be information fluent. It seems clear that there are many others who are struggling with the same issues, and that dissemination is critical for promoting a broad-based conversation about information fluency and sharing of best practices.

Our dissemination efforts also include two presentations at the 2002 EduCause conference in Atlanta (attended by nearly 7,000 information technology professionals, faculty members, librarians and others from around the world). Jeff Overholtzer, Director of Technology Education, John Tombarge, Reference Librarian, Ashley Hodgson '03 and Farhan Mustafa '03, all of Washington and Lee, comprised a panel on "Using Peer Mentors to Promote Information Fluency." At the same meeting, IF Coordinating Committee members Susan Hagen, Professor of English and Associate Dean at Birmingham-Southern College, and Jim Rettig, University Librarian at the University of Richmond, presented on "Faculty in Information Fluency: Neglected Stakeholders."

In 2002, a group of ACS faculty, IT staff and librarians proposed what we think will be a significant step towards disseminating IF materials, best practices and discussions, to ACS and beyond: an online journal of information fluency. The journal, now called "Transformations: Liberal Arts in the Digital Age," ([www.colleges.org/transformations](http://www.colleges.org/transformations)) is published twice annually and includes refereed articles from both the academic and corporate sectors, discussion fora focusing on select articles and topics, student contributions and regular columns on cyberculture and IF resources, as well as links to collections of IF materials and best practices. It will not be simply another collection of links, but rather a carefully integrated and annotated source of information, the latest IF-related research and discussion. For example, the journal addresses such issues as how new technology will affect acquiring and dispensing knowledge, its impact on individuals and society, and the direction digital information technology is going. We believe that the Journal will serve as a means of providing a venue for long-range dissemination and debate of the issues identified by participants in the ACS and other Information Fluency initiatives. Since we feel it is important to open up the conversation beyond ACS to other liberal arts campuses, the editors invited contributions from a number

of other groups engaged in consortial information fluency/literacy initiatives, for example the 5 Colleges of Ohio and the northeastern groups.

Thomas Allen, chair of Furman's computer science department, serves as managing editor of the journal. The editorial board includes Tom Allen and Ken Abernethy, Furman University; Barbara Brown, Washington and Lee University; Tom Henderson, Millsaps College; Bob Johnson, Rhodes College; Tom Lairson, Rollins College; Bob Paver, Southwestern University; and Bob Shive, Millsaps College.

The prototype issue (Volume 1, Issue #1) originally created in static HTML pages with design and editorial help from the ACS Technology Staff, contained a variety of articles and features on technology and the liberal arts: e.g., the changing role of technology in higher education, web-based research, wireless networks, and cyberculture in the liberal arts. In October the content was ported to a dynamic content management system ("Drupal" freeware set up and adapted by the ACS Technology staff) in order to allow the editors themselves to enter content quickly and efficiently. This system also reinforces the mission of the journal as it provides a means for readers to engage in online discussion. The "submit comments" option was immediately employed by several faculty members in response to the "Is Technology Just a Tool?" essay by Tom Lairson of Rollins College. A system for tracking use of the journal site was put into place in the month of November, during which period the site received 617 visits.

After some analysis of usage statistics and interviewing of members of the target audience for input, planning began for a second issue shortly thereafter, which came out on Dec. 1, 2003. We believe that the journal can serve not only as a source of information about IF in the liberal arts colleges, but also as a catalyst for IF discussions that go beyond ACS, and which pull together various individuals, groups and institutions.

The second issue (Volume 1, Issue #2) was published December 1, 2003, with all new systems formally in place. This issue has the special theme "Information Literacy and Fluency in the Liberal Arts," with a roundtable discussion of information literacy and fluency featuring three prominent librarians, along with "best practices" case studies from the ACS Information Fluency Project, and an

interview with Hal Abelson (MIT) on intellectual property rights, copyrights, and universities. In anticipation of the third issue's theme, "Bioinformatics and the Liberal Arts", which is scheduled for Spring 2004, there is also a feature on the emerging discipline of bioinformatics and call for papers. (See appendix I for the table of contents of the first two issues.)

### **VIII. Future Directions**

The ACS IF Coordinating Committee met April 14-15, 2003 to discuss progress of the program and lay out a course for future collaborations. The agenda included an update on the recent GIS symposium and ongoing campus projects, in particular projects that had been replicated either on the home campus or elsewhere. The committee then identified key areas for future consortial IF programming. These include:

1. Continuing to disseminate what we have learned, while at the same time promoting a wider conversation on information fluency in higher education. One avenue for such a dialogue is the online Journal described above, which we have already begun opening up to an audience beyond ACS, including submissions from a number of liberal arts colleges in other regions. We also plan to expand our database of effective practices in Information Fluency so that it ties in with the actual materials created. That is, we plan to create a repository of IF materials along with associated information about use of these materials.
2. Making a thorough assessment of our efforts to this point, while at the same time creating a repository of both best practices and re-usable IF modules and other materials. We are fortunate to have had the opportunity to learn from Jeanne Hubelbank and Patty Iannuzzi both techniques and directions for incorporating assessment into our programs.
3. Offering the annual symposia, which provide an opportunity for sharing and learning lessons from the individual campuses, while also working collaboratively to identify what role consortial cooperation can play to further IF efforts at the institutions. A new area of focus that we are eager to pursue is an annual ACS undergraduate research symposium. As envisioned by the program committee, this event would involve student/faculty/support staff teams and explicitly address the role of all the team members in the research process.

4. Focusing on some more concrete applications of information fluency such as GIS and the use of other kinds of large datasets and constructs, the use of which exemplify and model the skills and abilities we at liberal arts colleges hope to instill in our students.

ACS is grateful to The Andrew W. Mellon Foundation for its support, which enables us to point to real advances at our institutions and a solid foundation for continued improvement in how we educate students in the new millennium.