

**Supporting Inquiry-Based Learning Under Grinnell College's Strategic Plan:  
Implications for Library and Information Technology Services  
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September 2007; revised November 2007**

This document proposes a vision for inquiry-based learning at Grinnell College and invites conversation about what intensifying this mode of learning could imply for the development of our IT and library programs. The *Strategic Plan* (2005) calls on the College to “increase the emphasis on inquiry-based learning and broaden our liberal arts curriculum” (Strategy #1). Inquiry-based learning as we understand it is experiential and discovery-based; it is grounded in engagement with original sources and evidence; and it challenges students to develop their capacities for collaboration, analysis, creativity, and communication as they learn to participate as members of the broader scholarly community. Inquiry-based learning will best flourish in an environment rich with information, technology, and the expert guidance of supportive mentors in multiple specializations and roles.

An emphasis on inquiry-based learning supports other Strategic Plan goals. Such learning fosters a spirit of risk-taking, ambition, and adventure in those who pursue it (Strategy #2), advances the intellectual robustness and diversity of our community (Strategy #3), and strengthens the College's public profile (Strategy #6) by calling attention to our contributions as a center for innovation and discovery. These Strategic Plan priorities are synergistic. The processes of inquiry should, we believe, result in the sharing of student and faculty scholarship and creative work for campus-wide discussion and critique. Promotion of access to the methods and products of inquiry-based learning for all members of our diverse campus community should likewise broaden the scope of inquiry-based learning and enhance well-being. And scholarly sharing, in turn, can strengthen the profile of the College by making the accomplishments of College faculty, students, and alumni more visible to a wider public.

Intensifying our commitment to inquiry-based learning will require increased investment in the College's library and information technology programs. Thoughtful scholarly inquiry depends on ready access to **primary evidence** in the many forms defined by the various disciplines in our liberal-arts curriculum – images and texts, datasets and maps, films and musical recordings, reports of observations and experimental findings. Inquiry depends as well on access to the **scholarly literature** that sets the disciplinary and interdisciplinary context of inquiry.

Increasingly, primary evidence is used in digital form, and we foresee expanded investment in digital information and the technology needed to find, analyze, and incorporate primary evidence for teaching, learning, and scholarly communication. Much of the primary evidence needed to support inquiry-based learning at Grinnell must be purchased from commercial vendors and scholarly publishers. In addition, we will require more sophisticated technologies to facilitate discovery and use of this material and increased staffing to support its effective and responsible use.

In addition to the resources we can obtain through purchase or subscription, useful collections of primary material are already held by the College – in our library and archival collections, Gallery collections, records of scientific observations, theatre set designs, and collections of scientific and musical instruments, botanical and geological specimens, and anthropological artifacts. Portions of these collections can be **digitally photographed and cataloged** to support inquiry-based learning. Steps have already been taken in this direction: the Pioneer Digital Image Database already includes images of historic postcards, works of art, and artifact collections, and a custom-designed database interface provides multimedia access to musical instrument photos, descriptive texts, video clips, and sounds. Additional equipment, database technology to store

and index images and other media, and staff expertise in technology and standards will enhance our support and expand and improve on our existing efforts.

Effectively incorporating digital work into our teaching will also require increased investment in **classrooms and infrastructure**, to provide standardized and enhanced AV interfaces, projectors, computer equipment, and staff support and to provide assistive technologies that equalize access to digital information and scholarly resources for all members of our community. Faculty members need reliable, consistent, and high-quality presentation tools in order to feel confident in using digital media in their teaching. Recent classroom additions in Rosenfield and Noyce have served as a proving ground for a standard AV interface design, and we now need to extend that model to existing classrooms across campus. The increase in AV-equipped classrooms and heightened expectations for reliability and consistency demand increased staff support. Growing campus awareness of the needs of diverse learners, including learners with disabilities, requires significant new investments in assistive technologies.

Student inquiry should not end when a paper or other project is handed in. The products of learning can contribute to future inquiry if they are made available to other students and teachers to use as models and resources – and the process of learning will advance significantly if student work is subject to campus-wide review, discussion, and critique. **Digital repositories can store and index** both students' finished scholarly and creative works and such ancillary products as datasets, interviews, texts, images, sounds, and other evidence collected in the course of inquiry. Learning how to prepare this material for sharing – how to cite it correctly, redact it to protect privacy and confidentiality, and present it effectively – is an important and integral part of student inquiry.

Such a repository need not be restricted to student work. Ready availability of the published works (or works in progress, when appropriate) of Grinnell faculty would provide students with models and inspiration and encourage discussion and further learning. Finally, making the work of Grinnell College students and faculty visible through a campus repository will enhance the public profile of the College if it is accessible as well through the World Wide Web and search engines such as Google Scholar.

Fuller implementation of this vision will require substantial additional investments in scholarly materials, infrastructure, personnel, and facilities. Expanded access to primary evidence and scholarly literature in support of inquiry-based learning will require new purchases or subscription arrangements with commercial and not-for-profit publishers. Use of these materials will depend on investments in technologies that facilitate discovery and sharing (search engines, digital repositories, and assistive technologies for the disabled), analysis, classroom presentation, digitization, and cataloging. Support for pervasive inquiry-based learning will require increases in staffing for software and server management, classroom equipment and delivery, consultations with faculty on integrating inquiry effectively into teaching, work with students and faculty on locating and acquiring primary evidence and scholarly literature, cataloging materials for discovery, and teaching students principles of effective and responsible use of information. We must also invest in development initiatives to build faculty expertise in inquiry-based pedagogy. As inquiry-based learning evolves at Grinnell, facilities will need to expand to house new archival collections, provide spaces for digitization and cataloging, and promote collaborative teaching and study in proximity to archival and scholarly materials.