Collaborative Learning and Convergence: Library Strategies and Solutions with an Eye on the USG Information Technology Strategic Plan

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Collaborative learning and convergence: Library strategies and solutions with an eye on the USG Information Technology Strategic Plan

by Bob Fernekes and Lori Jean Ostapowicz Critz

This paper introduces collaborative learning as a strategic library priority of the University System of Georgia (USG) Information Technology Strategic Plan 2010 and how convergence is fostering collaborative learning. It discusses concepts and principles and provides an overview covering key methods and practices. As the role of collaborative learning is embraced by academic librarians, it will inspire us to stretch, grow and extend ourselves in a re-creating and empowering experience.

Based on a presentation for the Georgia Council of Media Organizations called “Visioning the USG Information Technology Strategic Plan: Library Strategies and Solutions From a Grassroots View,” this paper covers practical approaches, challenges and opportunities designed to create, facilitate and sustain collaborative learning environments and services in our libraries. In addition, it charts new directions for improving traditional library services as University System of Georgia libraries implement solutions designed to facilitate collaborative learning. Lastly, the paper will demonstrate GALILEO’s role in facilitating the convergence of tools, innovations, ideas and techniques that will strongly position Georgia’s academic libraries for 21st century learning.

Introduction

This paper presents a blending of themes on strategic planning, collaborative learning, convergence and collaboration by incorporating images and examples that succinctly portray the academic library’s journey of engaging with its campus and system. Foremost, it expands on the story presented by Dr. Curtis Carver in his keynote address to the GALILEO Interconnected Libraries Users Group Meeting consisting of librarians throughout USG on May 20. In his keynote presentation, Dr. Carver provided a glimpse of the new roles envisioned for the academic library engaged in 21st century learning and how the USG Information Technology Strategic Plan 2010 supports these new roles in collaborative learning.

In addition, this paper recognizes the invaluable contribution of Convergence and Collaboration of Campus Information Services (2008) as a compendium rich in innovative ways for integrating the library into student learning as discussed in the survey results and the 11 case studies, which include the University of Georgia and the Georgia Institute of Technology. Providing a more in-depth view of the library as a place for collaborative learning, Convergence and Collaboration underscores the role of librarians as instructors of new skills, as course designers and as collaborators with other campus information services to better meet the learning, information and research needs of our users.

Presented as an analytical look at the USG IT Strategic Plan, specifically the collaborative learning strategic priority, this paper provides a grassroots perspective on collaborative learning and convergence in academic libraries covering seven topics – learning and information commons, discovery tools, mobile applications, physical repository, knowledge repository, distance education and on the horizon.

Collaborative Learning Defined

As a point of departure, we chose to use the USG IT Strategic Plan’s definition of collaborative learning because it focuses on the results of high-quality learning experiences through the integration of technologies, content and collaborative environments that benefit students, faculty and
institutions. The complete definition reads as follows: Collaborative learning empowers people to create quality learning experiences that result in achievement and success through provision of robust technologies in an efficient and cost-effective manner; integration of technologies, content and collaborative environments to benefit students, faculty and institutions; engagement of leadership at all levels; and active exchange of best practices across institutions. (p10)

A closer examination of this definition reveals that collaborative learning as a joint intellectual effort is an umbrella term that describes a variety of learning activities or educational approaches involving students or students and faculty/librarians or among faculty/librarians, most notably in faculty learning communities and scholarship of teaching and learning groups. In addition, collaborative learning is tied together by a number of key assumptions about education excellence and how learners are empowered to create quality learning experiences. For example, education is “excellent” when it meets the needs of our students, researchers and faculty in their lifestyles, learning styles, and access to library resources, services and discipline research 24/7.

Convergence Defined

Another powerful force for change is the influence of convergence and being able to harness its multi-faceted nature (physical, virtual and organizational). For example, convergence can represent a coming together of two or more distinct entities or services in the physical space of a library information or learning commons for research and software instruction/assistance. In some cases, specialized services, such as multimedia production, tutoring and writing support, counseling and career services may be available. Likewise, Hernon and Powell in the preface of Convergence and Collaboration define convergence as “joint activities of a campus’s units to further their shared mission of supporting teaching, learning and inquiry.” Other ideas in the literature include meeting users where they are, i.e., mobile access (Wi-Fi/3G/4G) using smart devices and ways of bringing information together in one place via an integrated portal, as well as providing access to library resources within courses in a course management system.

The Evolving Learning Network

(depicted in Figure 1, below)

This leads us to an overview of the
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components comprising the evolving learning network being shaped by collaborative learning and convergence with its focus on the learner: learning and information commons, discovery tools, mobile applications, physical repositories, knowledge repositories, distance education components and components on the horizon. At the center of the evolving learning network of campus information services is the information or learning commons – the preferred location on campus for studying, research, networking and collaborating with peers. Each of these components supports collaborative learning in significant ways with measures that reinforce the benefits of achieving each goal’s objectives identified on pages 32-36 of the USG IT Strategic Plan. Moreover, campus and system-level library collaborative learning efforts and the strategic use of technology to empower collaboration are key to achieving USG goals for meeting students’ 21st century educational needs, to include the needs of 100,000 additional students by 2020, and for increasing efficiency working as a system. (p11)

Learning and Information Commons

The traditional information commons touted as a productivity center providing access to desktop computers, peripherals such as scanners and printers, and basic software packages is no longer a viable model for the 21st century academic institution. As laptop ownership, wireless access and remote login to networked applications take center stage for individual study, the information commons is transforming into a true learning commons to support the collaborative needs of today’s students. Across the University System of Georgia, this conversion is underway. Multimedia labs with state-of-the-art software ranging from sophisticated graphics packages to 3-D rendering software to advanced video editing programs, along with high-end multimedia machines and peripherals such as dual monitors, multifaceted video editing stations and wide-format and photo/slide scanners, have become the go-to location for the group knowledge creation that, increasingly, is needed to meet and exceed course requirements.

Seamless support of this team-oriented work occurs as groups move from these well-equipped and inviting design studios to innovative presentation rehearsal spaces – co-located venues for group delivery practice that include the technology encountered in campus classrooms along with recording/playback equipment that fosters the crucial peer review process. Student-directed
work areas with whiteboards, large plasma screens allowing for shared access and viewing and furniture that reconfigures to meet the needs of the project du jour complete the space-technology-support triad. The cycle of the learning collaborative model enters a new phase with performance spaces to showcase team projects and other creative endeavors provided within this expanding learning commons environment.

**Discovery Tools**

The “classic” library catalog and A & I (abstract and index) databases, now enriched with linked full text, that served us so well for so long, no longer suffice as students work to dissect and reconnect information not just for themselves, but also to support the needs of their learning partners. Their expectations, driven by the dynamics of their group efforts, have led us to find new, creative approaches for information retrieval. GIL-Find, a discovery interface that transforms the traditional Voyager catalog into a remarkable collaborative tool, began as a small pilot at several select colleges/universities but is now available across the state’s academic institutions. Based on open source software (VuFind) developed at Villanova, GIL-Find offers an array of features to support the collaborative experience. Sharing the fruits of their research labor with team members is both intuitive and at the point of need. “Tagging” of individual records to allow visual grouping and easy selection, user reviews/comments and self-created RSS feeds of searches enhance the collective discovery experience among users.

The ability to text searches and records to smart phones or to export items to shared work spaces such as synced Zotero collections or multiple-user EndNote Web accounts has become an integral part of research and communication. These features, in combination with the multidimensional faceted search results, push technology of “more like this” suggestions, the addition of Amazon reviews and Google Books, and links to other services (e.g. interlibrary loan, reserves), offer a truly inspired search environment for our digital-age users.

The popularity of this new discovery milieu has prompted increased interest, both at the institution level and at the state level, in finding ways to also repack and retool traditional databases in ways that will encourage and enhance the collaborative learning approach. New services, such as EBSCO Discovery and Serials Solutions Summon, now provide a fast, one-stop, integrated search environment with Web 2.0 features and a way to search, “discover” and access myriad library holdings. These services, and others, will continue to expand the boundaries for cooperative discovery and communication.

**Mobile Applications**

As more students and faculty are equipped with web-enabled smart phones and mobile computing devices, collaborative learning (those activities promoting learning through social interactions) puts the focus on the user experience, which may be static, dynamic or interactive depending on the mobile application functions. Related to e-learning or online learning, mobile learning (m-learning) adds a whole new dimension to the user experience in the way services and information are delivered and the capabilities for navigating and interacting while users are on the go. Although access to the mobile Web of universities and, in particular, academic libraries is in its infancy, Web-based information services, functions and digital content (such as books, journals, news, course reserves, videos and databases), will rapidly change the ways users interact with each other and their library.

The success of mobile applications in the commercial sector, coupled with the willingness of major library vendors to develop mobile applications for accessing their library products based on the user’s location, is propelling libraries to develop plans of action that leverage this application development. In addition, the USG IT Strategic Plan will serve as a catalyst for USG Library Services and Information Technology Services to facilitate collaboration with these third-party businesses on the development of mobile course applications, such as Blackboard Mobile, and other user-centric applications for the mobile Web.

**Physical Repository**

The rapid migration to electronic journal subscriptions has alleviated some of the storage issues facing academic libraries. Despite this sea change in serials acquisitions, library real estate remains a scarce commodity. Long-term, nontraditional storage offers viable options. The decision to establish on-site or off-site storage creates opportunities to reallocate space for individual and especially group study accompanied with all the technology enhancements available to facilitate collaborative learning. Space that once housed stacks of little-used journals and/or monographs is repurposed into technology-infused research and learning zones for our students and faculty. Thus, the concept of the physical repository plays a supporting, yet crucial, role in the collaborative learning paradigm.

This repository of print holdings usually follows one of two models. For some institutions, an off-site storage facility is ideal. Georgia Tech, for example, is planning to utilize a large climate-controlled facility three
miles from the library as a secondary storage for older, low-demand journals and books. Retrieval will require a paging and delivery system, triggered by a user request. On the other hand, Georgia Southern has taken the high-tech route with an automated retrieval collection (ARC) system in the library addition. Users place a request through the library catalog, and the ARC automatically finds the bin containing the book, and a circulation desk staff member brings it back to the circulation desk. Both solutions recognize the value of maintaining and preserving research materials, and both systems allow for continued statewide access to materials that are often unique holdings. Requests and delivery via the Gil Express system remain an essential service for researchers and students across Georgia.

Knowledge Repository
The preservation of and access to a collective knowledge base of scholarship generated by or related to Georgia research have been an enduring statewide concern. Barrier-free access to this collective body of scholarship will help spark more inter-institutional, interdisciplinary research, teaching and learning. Knowledge is, by its very nature, a shared resource. The GALILEO Knowledge Repository (GKR) promises to make this sharing a statewide reality. Funded by an Institute of Museum and Library Services grant, a multiyear, multiphase collaborative effort is underway to establish a unique digital repository service that provides collective access to this body of scholarly materials. The GKR project involves programmers, repository managers and other investigators in the effort to establish this comprehensive repository service (http://www.library.gatech.edu/gkr/).

Georgia Tech's institutional repository, SMARTech (http://smartech.gatech.edu), provided the initial impetus, but it is now a collaborative effort, including multiple partner institutions across the state (UGA, Georgia State University, the Medical College of Georgia, Georgia Southern University, Valdosta State University, Albany State University, North Georgia College and State University and the College of Coastal Georgia). Several institutional repositories, such as those at UGA, Georgia State, Valdosta State and Georgia Southern, are already operational, and additional institutional repositories are being developed as part of this endeavor. The repositories will use DSpace, an open source, highly customizable software. The GKR project is developing a single site for users to search across the harvested records from Georgia's individual repository sites.

Distance Education and Library Services
The traditional goal of library services

The Academic Library’s DNA: Collaborative Learning
The University System of Georgia IT Strategic Plan

Information Commons
Learning Commons
Classic Library Catalog, A&I, Linked Full Text
Discovery Tools
Voice, Messaging, Email & Web
Mobile Applications & Social Media
Mostly Shelving, Some Study Spaces
Physical Repository, Extensive Study Spaces
Silos of Print Documents & Research
GALILEO Knowledge Repository
Traditional Goal: Equivalent Services
Distance Education: Learning Partnerships
SWOT Analysis & Needs Assessment
On the Horizon: Strategic Planning

Figure 2
for distance education is to provide distance education students and faculty with library information, services, instruction and access to resources equivalent to what is provided for campus students and faculty. Aside from providing document delivery of books, journal articles and dissertations, until recently, distance education library services consisted of providing a library website as a service point or portal designed around the needs of distance learners. With the advent of social networking, mobile computing and the growing number of applications for accessing an increasing supply of e-content (books, journals, aggregator databases, government documents and knowledge repositories) and for creating new content (text, images and videos), wireless/Wi-Fi/3G/4G access using smart devices is becoming the norm.

Coupled with these developments, distance education poses new opportunities for academic librarians to form partnerships as new courses and programs are developed and approved by curriculum committees. The components for a dynamic new learning network described above underscore the point that technology is enabling collaborative learning among students and, with a little effort, students and faculty/librarians, and faculty and librarians.

Another driving force – access to library resources is deemed critical to success in many courses – requires students to use library materials, which increasingly are online. Thus, library services for distance learners need to go beyond standard practices and embrace collaboration and collaborative learning as a strategic priority and a basic tenet of library liaison and subject specialist responsibilities, including online instruction and assistance.

On the Horizon

With our DNA intact and reflecting our new roles alongside traditional services and functions (as shown in Figure 2), let’s examine our DNA more closely. The two ribbons represent the relationships of each academic library intertwined with its institution and the University System of Georgia and aligned with a constellation of other organizations that our libraries, institutions and the USG interact with to ensure our effectiveness and efficiency in delivering collaborative learning and access to resources, services and expertise. The supporting rungs identify a juxtaposition of elements providing a thumbnail context of the library’s capability to support collaborative learning.

In the same manner that ancient cultures were skilled in horizon astronomy, we too must be skilled in recognizing trends and challenges as opportunities for adopting new technologies, innovations and developments that empower learning. Six emerging technologies or practices identified in The Horizon Report, 2010 Edition, are as follows: mobile computing, open content, electronic books, simple augmented reality, gesture-based computing and visual data analysis. The Horizon Report provides a detailed analysis of each of these technologies and augments the review of the evolving learning network above.

Concluding Comments

The USG IT Strategic Plan provides a framework for system institutions to meet USG strategic goals as we renew our regional and professional accreditations, commitment to student learning, and excellence in teaching and library services. Yes, Georgia’s USG libraries have new roles in the evolving learning network involving collaborative learning, reaching out and engaging our communities in ways that better meet their needs. As we celebrate GALILEO’s 15th anniversary and Georgia’s Interconnected Libraries, let’s also celebrate the vision, leadership and spirit that developed the USG IT Strategic Plan and, in particular, the collaborative learning strategic priority.

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