Academic libraries have had a role in university accreditation reports for decades. The University’s value was in part described in terms of its resources, including the size of its library’s collections. The campus library is an excellent source of inputs for the academic enterprise, with metrics on numbers of volumes held, and descriptions of study facilities. Over time, student learning has become increasingly important and some accreditation criteria, such as those used by the Middle States Commission on Higher Education, now focus heavily on documenting student achievement of learning outcomes. The support that Libraries provide faculty and students in teaching and learning is now assessed as part of output measures used to report activities for accreditation reviews. Furthermore, the impact of these library instructional activities are gaining interest beyond the library as assessment officers often find libraries to be campus leaders in the assessment of information literacy outcomes, and through that effort, a model for developing sustainable, structured assessment practices.

As access to information is increasingly available beyond the walls of the library, and teaching is becoming more learner-centric, with shared instructional responsibilities among faculty and service staffs, the centrality of the library’s resources is less sufficient in telling the university’s story. However, the focus that libraries have on the discovery and use of information opens an opportunity for a new role on the campus stage. The library is becoming a “meta college” that works across disciplines to tie multiple student learning experiences beyond the classroom and lab into a coherent lifelong learning narrative. Outcome measures that address broad institutional learning goals (e.g. critical thinking, communication, information literacy) become metrics for libraries to engage in the assessment of the academic enterprise in new ways.

Drexel University has been developing an evolving partnership among librarians, faculty, and assessment professionals that grew out of preparation for its upcoming Middle States reaffirmation of accreditation visit. This collaboration has opened new areas of inquiry about the role of the library in supporting and better understanding student learning, by moving forward both the assessment of learning outcomes and a new conception of the academic library as a learning enterprise. A unique experiment is beginning whereby the library, in collaboration with other learning experts on campus, coaches students in their development of key institutional learning goals and in their use of learning outcome measures to gauge their own progress. The character of the library evolves as one of coach for students to take ownership of their own intellectual development and meaningfully connect their diverse college learning experiences. The anticipated result of this new engagement with assessment is that students become lifelong learners with better appreciation of the purpose of learning.

Two propositions ground this exploration. First, a successful future for the academic library rests in its
contributions to achieving (and assessing) institutional learning outcomes. Furthermore, the library can be a central environment to support students in their intentional learning and to help students assess and build a learning narrative from across campus activities.

**Conversation on the Assessment of Learning**

The conversation on learning assessment in higher education has been around for over 20 years.¹ That the effort to measure learning has been around for a couple decades is not surprising. Institutions of higher education should be thinking about what and how well students are learning, as well as evaluating pedagogical, curricular, and other educational interventions through their impact on student learning. However, what is surprising is that after 20 years accreditors continue to discuss learning assessment in ever more stringent and compliance-driven terms to institutions that remain, on the whole, slow to implement processes of systemic and sustainable institution-wide learning assessment. In addition, the level of continued pushback from faculty² to learning assessment points to the insufficiency of current models of implementation.

There are a variety of reasons for the continued resistance to learning assessment and the small number of successful and sustainable models currently in place. A few of the more salient reasons can be attributed to 1) a too strong focus on compliance to accreditation standards as a driver for developing learning assessment,² 2) a system of training into the disciplines that does not strongly encourage learning assessment, 3) a lack of departmental expertise in the range of skills required to develop systematic, sustainable models, and 4) faculty reward systems and tenure structures that do little or nothing to motivate faculty to pursue work on learning assessment. Additionally, for the most part students are not being taught the value and use of their own learning data to drive greater independence and ownership of their learning, thus further detracting from the development of effective models.

At Drexel University we are attempting to address several of these issues through the development of partnerships among the Libraries, the Office of Curriculum and Assessment, and other academic units. In particular, the efforts detailed in this paper offer new approaches to focusing learning assessment efforts on meaningful instructional, curricular, and support activities; increasing departmental access to appropriate expertise to complete assessment cycles; and better supporting student understanding and use of learning data. By doing so, we hope to support the development of a more sustainable culture of informed learning at the institution.

**Defining a Role for the Library**

Numerous conversations in recent years among librarians and other academic stakeholders have revolved around the future of the academic library. The literature identifies factors that are influencing the need to revisit the role of the library as well as different perspectives to conceive its future.⁴ Understanding changes in behaviors to finding and utilizing information, in pedagogy, and in learning offers insights into the transformations about the ways information is sought and retrieved, curriculum are designed and taught, and students learn and create new knowledge. Librarians are challenged to reconsider their role, along with other institutions traditionally assumed to engage in information and cultural preservation.

Rather than act as gatekeepers to knowledge, museums and libraries can be facilitators and teachers, providing the context, content, and tools that empower people to question, search, inform, and explore the worlds of information, experience, and memory. Increasingly, the museum and library of the 21st century are not one-way channels of information that flow from institution to audience. Rather, they are networks of many channels, institution to audience, audience to institution, and audience to audience.⁵

Traditionally, the measure of a library’s contribution to meeting the mission of higher education has been through building and organizing collections, and also by maintaining facilities for study. Oakleaf documents conversations about “logical changes” underway in conceiving what the library adds to the university.

Increasingly, academic library value is linked to service, rather than products (P. Kaufman, Carpe Diem 2009, 2). Library literature reveals this shift in library emphasis from collections to experience, from resources to educational impact (Dow 1998, 279), from access
to sense-making, from mediation to enabling (Lougee 2009, 612).

Engaging students with information is accomplished in libraries through a variety of ways. Perhaps the most notably experiences librarians provide are information literacy instruction and reference services that coach students to develop and implement such skills. The value of such experiences may be assessed in terms of student retention and graduation rates for which several strategies are identified in the literature. They center on, “helping students engage with other students and educators…[including] developing out-of-classroom learning experiences and improving teaching quality” (Bell 2008, 2), …[as well as]:

- curricular and behavioral integration (Ewell and Wellman 2007, 5)
- frequent contact with faculty (Ewell and Wellman 2007, 5)
- consistently accessible and responsible staff (Scott, et al. 2008, 14)
- prompt and effective management of student queries (Scott, et al. 2008, 14)
- efficient, convenient, and responsive libraries (Scott, et al. 2008, 14)

Although considerable evidence exists of librarians assessing their instructional work, most measures local services and is sporadic and seldom considers its impact. Academic librarians are well versed in measuring service inputs and outputs, but are only beginning to become familiar and incorporate outcomes as part of their assessment strategies. The entry into this assessment area has occurred, in the main, with librarians engagement with campus preparation for accreditation reviews.

Another characteristic of the library that is subject to new conceptualizations is its use of space. The concept of the “third place,” introduced by sociologist Ray Oldenburg, has been applied to articulating the opportunity for libraries to demonstrate their contributions to the academic mission. Described as “a neutral community space, where people come together voluntarily and informally in ways that level social inequities and promote community engagement and social connection,” the third place is applicable to libraries:

[A]s public gathering places organized around public service and the transfer of information and ideas across individuals… [with] distinct resources as easily accessible, low-cost barrier places rich in content and experience… as safe communal spaces for people to interact with one another… for social engagement outside of private or working life and removed from the profit interests of commercial spaces.

Conceptualization of the library as a “learning enterprise” and its space as a “learning commons” is appearing in design of renovations and new construction. Resulting design principles of using flexible spaces with plentiful access to reliable Internet connectivity, and furnishings that can be arranged by the inhabitants, support the notion of the library being an environment for intentional learning. Although space design is a transformative component of this new library paradigm, it must be complemented by new ways of conceiving the services and resources provided in the space. As these intentional learning spaces are developed they will support student achievement of effective problem formulation, identity and retrieval of information, and critical analysis and use of it, enabling the library to foster student ownership of their intellectual growth. Librarians are challenged to change their own self perception from being service providers, even in conducting instruction on information resources and development of literacy skills, to becoming partners and leaders, through collaboration with other campus experts, to affect learning. It is only within such a learning-centric framework that the library will enact the university’s mission and become a core player in the evolution of higher education.

**Issues of implementation: The Case of Drexel University**

Drexel University is a comprehensive university, started over a century ago and with a continued focus on practical, technology savvy education. Its portfolio of distinguished programs in engineering, business, information science, and the media arts, has been expanded in recent decades with expert training in nursing, public health, medicine and law. Known for its highly successful coop program, the university undergraduate degrees typically require five to six years to complete and involve professional work during one to three six month intervals. A student population of over 20,000 students and approximately 1,350 full-
time faculty work and reside in the greater Philadelphia metropolitan area, as well as in Sacramento and elsewhere around the world where the “Drexel network” offers online education and global experiences.

**The Middle States Accreditation Catalyst**

One of the main benefits of an impending accreditation visit is that it provides a catalyst for moving forward processes and ideas that can significantly benefit an institution that may otherwise take years to get started. At Drexel, an upcoming Middle States accreditation visit was the catalyst for the development of a set of broad learning goals that reflect a consensus across colleges and other units about what learning is most important for our graduates. Eleven goals, referred to as the Drexel Student Learning Priorities, were developed over an 18-month period of collaborative work, culminating in their integration into the governing processes of the Faculty Senate. The goals align closely with those identified by the Association of American Colleges and Universities (AAC&U) in their VALUE project titled “In addition to demonstrating competency in their fields of study, students graduating from Drexel University also demonstrate meaningful progress in six core intellectual and practical skill areas (Communication, Creative and Critical Thinking, Ethics, Information Literacy, Self-Directed Learning, and Technology Use) and five experiential and applied learning areas (Global Competence; Leadership; Professional Practice; Research, Scholarship, and Creative Expression; and Responsible Citizenship), achieving levels of competency in each core area appropriate to their program of study, their individual interests, and their abilities. Learning in these core areas supports, and is integrated with, learning in the disciplines and provides the foundation for a broad education across disciplines.

Defining a set of learning goals has been the first challenge toward better understanding student achievement of the identified institution-wide learning goals. The second, and much more difficult, challenge has been to identify and develop methods to assess student achievement of these learning goals, use the resulting information to inform improvements, and do so in a sustainable, meaningful way. The Associate Vice Provost for Curriculum and Assessment started by identifying sponsors that were already doing work in these areas and quickly identified two: 1) the Writing Center, and 2) the Steinbright Center for Career Development which organizes the University's co-op program. The former provides a structure to support and assess the communication learning goal, and the latter provides a way to assess (through employer evaluations) Drexel students’ abilities to apply learning of the 11 identified goals in appropriate contexts. However, there remains a need to develop a partnership that would help focus resources, space, and tools to help students more fully drive their own learning, as well as to assess student achievement of the learning priorities, across educational experiences (curricular and co-curricular). In addition, the approach needs to support increased student ownership and understanding of the learning process.

The Libraries, with its emphasis on providing robust learning spaces and establishing itself as a true learning partner with the colleges, offers a natural setting in which to explore new ways to support students in taking ownership of their own learning. In addition, by creating assessment mechanisms that offer students regular feedback on their progress across all their studies and educational experiences, such a centrally positioned educational unit strengthens the odds that the institution-wide assessment process will become sustainable and integrated into the learning process. The Libraries was identified as a key venue for students to engage their learning across disciplines and to develop a holistic attitude to their growth.

**Design for Implementation of a Learning Terrace**

The Drexel University Libraries is recognized to be undersized for the population served and institutional ambitions for research, education and civic engagement. It has three libraries in Philadelphia [that by academic space standards for private institutions are short 180,000 square feet], a staff of approximately 60 librarians and paraprofessionals, and a collection of around 400,000 physical items and 160,000 electronic resources. To begin to address this deficit in 2010 the University commissioned a space review through which its new dean of libraries, and campus and contracted planners proposed a solution to manifest the evolved role of the library as a “learning enterprise.”

The proposed solution is a model that aims to embed library environments within the mainstream of academic life—where students...
reside, where faculty develop their teaching tools and skills, where discipline-based research and learning activities occur, and where the greater campus community takes pride in its historic legacy.

A multistage strategy began in fall 2010 with the design of a Libraries Learning Terrace to be created by enclosing the entrance portico to a resident hall centrally located to where students live. The 3000 square foot space is scheduled to open in April 2011. The report of the study review describes the transformation this project aims to enact for the role of the academic library:

These new spaces are being developed as “learning commons” – spaces where the intentional learning, building of educational partnerships, and collaborative research and development aspects of the library can grow. Key partners such as writing and other tutors, faculty development, instructional technology experts were identified and their ultimate collocation [through housing some units and offering “hoteled” reservable work areas] is seen as integral to the success of these new learning environment spaces. In addition, as new buildings to house colleges and schools … are designed, provision of small “satellite hubs” of the Libraries is recommended where professionals who are expert in the relevant discipline’s research methods, pedagogy and sources of scholarly communications will be available through scheduled “office hours” and otherwise can be reached through electronically empowered means of remote communications and library services...

By adding the … new spaces, significantly redefining the role of the librarian, and providing “partner” collaborators, the library system at Drexel will dramatically improve its effectiveness as a learning enterprise that enables more active and intentional learning outside the classroom.

Two open “town hall” meetings were scheduled to seek reactions from students to this new concept of a library, with invitation to identify how the Libraries can contribute to fostering their learning. Over two hundred students participated, posing clarifying questions about the proposed absence of books and their concerns for safety and employment opportunities. However, associated with this library planning, students expressed positive enthusiasm that university administrators cared about their academic experience and that experts might be conveniently available to help them with their studies. The Drexel Libraries, as many other academic libraries, already contributes to the student experience with extensive orientations, responsive policies and practices to provide access to assigned readings, and specialized consultations in person, at service desks, through social networks, email, and online Web-based tutorials. In fall it introduced its friendly outreach program of assigning a Personal Librarian to every incoming student. Working with faculty, tutors, and other experts in pedagogy and technologies, librarians offer services to support teaching, completion of class assignments, and design of information guides for on-campus and distant learners.

But also like most academic settings, Drexel University currently does not have an effective method to assess its institution learning outcomes or to evaluate its libraries’ impact on learning. The innovative approach Drexel is exploring to address these gaps are threefold. First we are organizing a voluntary collaborative among campus course support experts in technology, pedagogy, and information. Second, we are developing mechanisms to assess and support the institution-level learning priorities. Third, we are focusing on this new position of the Libraries to create measures of its value to the academic enterprise.

**Collaborative Support**

Building on her earlier experiences at Yale University the Dean of Libraries has explored the adaptation of a voluntary partnership among campus units located across numerous departments that provide faculty support for teaching with service expertise in pedagogy, technology and information. The Drexel culture shares similar dispersion of service support with such units as a writing center, math tutors, online education administrators, instructional technologies, curriculum assessment, faculty development and libraries administratively reporting within such different places on campus as the College of Arts and Science, the Math Department, the Information Resources and Technology (IRT), and the Provost’s Office. Drexel has a strong presence of assessment in ac-
tivities related to teaching and learning. These efforts at present are coordinated primarily for preparation for its accreditation review. Individual colleges and schools also hire some of this expertise to focus support within a specific discipline. Though there are a few forums for communications among similar technology and pedagogy specialists, there is no channel for a holistic approach to addressing support of faculty in developing and improving teaching or assessing impact on student learning.

Identifying interest in doing so has been underway and initial conversations to form a voluntary collaborative have produced a draft articulation of its direction: to build awareness of campus resources in support of teaching and learning, improve communication among service providers, and explore methods to assess impact on learning outcomes through assisted development and feedback of intentional learning. The current focus is to work with the Department of Architecture and Design to develop a pilot of the Collaborative concept to support program evaluation. There also has been some interest among engineering educators to design assessment tools for learning assessment at the student level (e.g., EduApps discussed below).

**Assessment in the Libraries**

Drexel Libraries exemplifies common practice among many academic libraries. Librarians have focused assessment of learning at the individual student level, with little coordination of data across instruction sessions or academic disciplines. Evaluation is conducted at the end of an instruction session through a short questionnaire and includes request for feedback on instructor performance, mastery of skills, and occasionally perceived benefit of the experience and what was learned. The result is helpful to the individual librarian for preparing delivery of material but of little use to either guide the learner or understand the library’s contribution to learning. Assessment of learning is limited to description of inputs [e.g. quantification of librarian time, engagements with other tutors, resources covered or research skills addressed], and outputs [e.g. numbers of sessions conducted and of participants, ratings of student satisfaction]. Learning outcomes are identified superficially through perceptual surrogates, in the form of students’ perceived confidence in their ability to find and use information and teacher anecdotal observations of sources used and classroom performance.

In evolving its function as a learning enterprise, the Libraries has the potential to fill an important gap in leveraging information for intentional learning. In so doing, it becomes a “meta college” that shapes the role of information for learning, not as the object of study as academically addressed by those in information science and informatics or as the carrier of content introduced in the preparation of scholars and practitioners in specific disciplines. Rather, the Libraries are uniquely positioned within the academy to guide students to become intentional learners, taking responsibility for the formation of information queries needed to succeed in their discipline based study and to equip themselves for decision making in life’s tasks.

Beyond query formation, the mastery of skills (common to any content domain) to undertake the tasks of information retrieval, evaluation and use, becomes the primary learning objective of a library’s educational role. To accomplish this, a library’s services continue to be important to provide effective and convenient access to information, ranging from formulating collections to negotiating shared resource provision for information not locally available. Furthermore, its partnership with others influencing the learner’s development becomes important to assure that these common learning objectives are achieved with benefit of advances in pedagogy, technology and information management. To complete the iterative loop for learning, the library needs to provide the learner feedback both to diagnose progress in developing this knowledge as well as achievement of learning objectives, necessary for success in the university’s formal colleges as well as life beyond campus. The challenge is to develop tools for learner level assessment, data management systems to aggregate individual progress for institutional level assessment, and metrics to evaluate the library’s value to the learning enterprise.

The University has adopted two technologies that provide learning information back to students: iWebFolio portfolio solution and the Academic Evaluation Feedback and Intervention System (AEFIS) platform. The portfolio tool is being used to collect student work against specific institutional learning goals (starting with the communication goal) and providing the foundation for the assessment of student achievement across the length of study programs. As such, the tool provides students with feedback on their own work.
against identified learning goals through the course of their studies. The AEFIS tool supports a broad range of functionalities, including syllabus development, survey implementation, and embedded direct assessment of student learning. Most importantly for the purposes of this discussion, the AEFIS tool allows the development of user-specific dashboards for a range of stakeholders (e.g., faculty, advisors, administrators, and students). The tool’s goal is to provide students with data that are most salient to gauging their learning. The Libraries will both provide students access to their own learning data through these systems, and provide mentoring on ways these data can be used. The goal will be to help students build their own, ongoing learning narratives to make sense of their diverse, and often disconnected, learning experiences.

Supplementing the co-op employer evaluations and the Writing Center’s communication assessments as cross-college sponsors, the Libraries will initially develop a method to assess information literacy (one of the priorities), but then will move forward in collaboration with the Office of Curriculum and Assessment, Colleges, and Schools to develop assessment regimens, or reinforce those regimens, and deliver resources for meeting other learning priorities.

One such resource is the development of an EduApps16 Portal. Drexel’s EduApps Portal will provide a simple, efficient and effective method for faculty to disseminate and use learning innovations, and for students to use them to support learning targeted around the institutional learning priorities. By delivering research-supported tools for specific problems and learning contexts, faculty can easily download and use these new pedagogies without interpreting an exhaustive search of the educational literature. Moving forward, assessment mechanisms can be embedded into the EduApps, as well as have access to various kinds of user feedback. As currently envisioned, EduApps will be used for multiple purposes, from simplifying operational tasks to delivering appropriate and vetted instructional strategies.

Local Spaces
Libraries also support student development in areas covered by learning priorities through provision of physical learning environments. At Drexel a new initiative to design a small “Learning Terrace” is underway that when open in spring 2011 will allow exploration of what impacts learning. It aims to provide indoor and outdoor space, furnished with easily movable tables and chairs as well as a focused consulting place where librarians and their collaborative partners will come to coach students to learn about their own learning. Consultations or instructional sessions are expected to be intentionally scheduled and to focus on self-directed learning, critical and creative thinking, information literacy, and communication. When not occupied by learning coaches, this space may be utilized by students for peer or individual learning. For branding, the challenge will be to associate the space with library assistance while allowing for self-directed learning. There will be no books and little if any times when staff members are present “just in case” they are needed. Connection to library resources and reference assistance will be offered through electronic connectivity. Interest to assess contributions to learning offered by such environments comes not only from librarians, but also from campus researchers in interior design and engineering, as well as university planners and architects of traditional educational spaces such as classrooms, lecture halls, dorms, and social assembly facilities. The interest extends to architects bidding on library design projects when for example, they are asked to indicate how success of their design should be evaluated.

Valuing the Library
As the ACRL Value Report Highlights,

Libraries cannot demonstrate institutional value to maximum effect until they define outcomes of institutional relevance and then measure the degree to which they attain them (Kaufman and Watstein, Library Value 2008, 227). Librarians in universities, colleges, and community colleges can establish, assess, and link academic library outcomes to institutional outcomes related to the following areas: student enrollment, student retention and graduation rates, student success, student achievement, student learning, student engagement, faculty research productivity, faculty teaching, service, and overarching institutional quality.17

Providing benefit in areas of student learning and engagement, coupled with faculty teaching is a high priority for Drexel Libraries. A transformation is underway to establish the Libraries as a critical learn-
ing enterprise, with a corresponding organization structure that is leveraging library leadership in two complementary areas. These replace traditional distinctions of technical and public services with Services that ensure convenient and effective access to information [that redefine operations ranging from acquisitions to resource sharing and include cataloging and circulation], and Academic Partnerships that facilitate development of intentional learners [through collaborative engagements of librarians in instruction, consultations, collection development, and system design]. Metrics and methods of evaluation to track success in achieving goals for these areas are different in nature. Services employ data supporting continuous quality improvement such as established outputs [e.g. numbers of instructional sessions, students reached, resources utilized, and client satisfaction]. Academic partnerships when considered as a service will have similar performance outputs though with emphasis on extent of outreach and collaboration with others to develop and use such outputs as teaching guides, information-rich learning assignments, and collections.

But more challenging is the identification of metrics to measure the Libraries’ impact on learning outcomes. Thus far discussions have begun to consider the relationship between such factors as student-librarian contact [e.g. through instruction, consultation or Personal Librarian communications] and student retention, course achievements, and developed writing skills. To measure these will require ways to track individual student performance while respecting privacy. Development of a self-administered assessment tool to track demonstrated progress toward meeting the institutional learning outcomes is envisioned to give a student periodic diagnosis of areas calling for additional learning. Shared with coaches, such learning can be guided with assistance from campus specialists such as librarians and writing tutors. Working with assessment and pedagogy experts, librarians at Drexel are beginning to experiment with ways to gather such data and incorporate tools to form service support to utilize them by faculty and students. Establishing the institutional learning outcomes, with information literacy among them, as well as articulating a new role for the Libraries as a learning enterprise have been first campus steps toward meeting this challenge.

**Final Observations Moving Forward**

The initiative holds a lot of promise, but also presents many challenges. These are similar to what most of our colleagues are probably facing, are part and parcel of trying to change the landscape and culture in which we work. Even a seemingly small change that only involves centrally documenting work that is already happening is not easy. These challenges can be summarized as follows:

- Resistance to change in a conservative, risk-averse culture
- Stiffening of existing silos as the initiative actively seeks to create greater collaboration and weaken silos
- The lack of established models and known infrastructures related to the initiative
- Finding ways to fund the initiative in an institution running a tuition-driven financial model

We believe that the partnerships we are developing, the processes we are building, and the re-envisioning of the library underway will go a long way to overcoming these challenges and help the University build a more robust culture of informed learning.

**Notes**


