New Metrics for Academic Library Engagement

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The Context: the Drive for Accountability, Value, and Impact

In the past decade, the pressures upon higher education institutions in the United States and in other countries have become unrelenting—demographic pressures, technological changes, expectations for increased research productivity, the demands for improved student learning outcomes, and the requirements for increased operational efficiency and adoption of business models and new measures for effectiveness—have become commonplaces across the spectrum of colleges and universities—public, private, research/doctoral, comprehensive, or community college. Keen competition from profit-sector institutions has added to the complicated set of pressures with which administrators and faculty in some higher education settings must grapple. Governing boards, parents, alumni, community members, and a wide range of other constituents all expect colleges and universities to develop high quality academic programs and to graduate students equipped to compete in a global marketplace—with a particular perspective on that overarching goal, of course, from each of those constituent groups. The competitive global environment, in fact, forms the backdrop for all of the intensifying pressures now impinging on American college and universities.

Demands for increased accountability, assessment, and measurement are now pervasive in American higher education, a trend that will only increase. Regional accrediting bodies, governing boards, external program review groups, and state-level education coordinating boards, and potentially the Federal government, are all placing expectations for assessment and measurement on colleges and universities, to satisfy an increasingly skeptical public about the value of higher education programs, research agendas, curricula, and services. Often honored with the appellation "the heart of the university" or "the heart of the campus," academic libraries have seen during this same period the ever-increasing attrition in their collections budgets and the confusing loss of centrality (for them) as privileged information providers at their institutions, as students, faculty, and others choose other, more convenient information sources. The disquiet, concern, and anxiety in librarianship have become palpable, giving rise to a spate of research studies, thought pieces, association and think tank reports, scenario planning documents, and manifestos, calling for libraries to change their paradigms, assume new roles and position themselves to offer new sources of value to the academy, and beyond.[1]

Because of the wide-ranging concern about the future of academic libraries among many library leaders, faculty, and academic administrators, a movement has begun to develop new measures to assess impact and value.[2] ROI (or Return-on-Investment) studies have particularly caught attention in relation to demonstrating the value that the academic library might add to faculty research productivity through

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grant awards, as a result of investment in library research materials. The three Library Assessment Conferences held since 2006 have advanced collective understanding in the profession of possible methods for measuring value and impact, particularly those studies of Stephen Town.[3] Concomitant with this increased imperative to measure value and impact is an emerging call for collective action in the library community, and for collaborative relationships among a range of partners in order to advance value and impact. Although hardly new, this emphasis on collective action and collaborative projects points out an unmet need—that for measuring academic library engagement.

Why Engagement? The Purpose of this Study

This paper is based upon the assumption that "engagement" is an emerging construct with potential for measurement in the community of academic libraries, based on more traditional ideas about outreach, public service, extension work, and other endeavors in which the library provides expertise to a wider community as part of its organizational mission to improve the quality of life in that community. The well-known and strongly held values of public research and land grant universities, as manifested in their outreach, service, and extension programs, are fine exemplars of this type of outreach, dating to the Morrill Act itself.[4] In addition, metropolitan universities have developed strong outreach and engagement programs to urban communities, focusing on cultural programming, economic development, and policy expertise.[5]

The varieties of engagement mentioned in the library literature and the higher education literature are cross-cutting and overlapping, with some fuzziness of meaning. The "pedagogies of engagement" and "student engagement" provide one frame for understanding a deeper connection for learning in the academy[6]; "civic engagement" and "community engagement" provide another frame or reference, that of extending the programs and expertise of a college or university—or involving the members of an academic community in developing partnership with outside groups, enterprises, or organizations.[7] However, the root meaning of "engagement" upon which this study draws is the Boyer "Scholarship of Engagement" construct,[8] which sees higher education institutions, and their members, developing a "public scholarship" which unifies research, teaching, and service in creating connections with a broader set of issues, concerns, and agendas beyond their institutions.[9] The Boyer taxonomy of the scholarships of discovery (research), teaching, application, and integration[10] are extended into the "scholarship of engagement", which encompasses practices that unify the other "scholarships" and which, according to Barker, involve a "reciprocal, collaborative relationship with a public entity."[11] The element of reciprocity is crucial in this understanding of "engagement": members of a college or university participate in civic renewal by working with members of another organization beyond their own institution, while also learning from them. In this sense, "engagement" transcends traditional "outreach" or "public service" because it creates a field of mutual energies and a collaboratively developed vision around common purposes.

What are the implications of this sense of "engagement" for academic libraries? As part of a complex web of relationships within their own institutions, and as a service agency for their own institutions, libraries have traditionally focused on their "service role" rather than "collaborative roles" or "partnership roles." The major exception is within the community of academic libraries, where collaboration and leveraging of common expertise is the norm. However, the many strategic challenges facing academic libraries are causing many their leaders to question the traditional service role in favor of an 'engaged partner' role—both on their own campuses, as well as beyond their institutions. Issues of scholarly practices and scholarly communication; the rapid migration of content to digital environments and the attendant behavioral changes of students, faculty, and others; shifts in pedagogy toward inquiry, critical reflection, and evidence-base reasoning; issues of intellectual property and author rights; data mining and e-science; and assessment of learning and program outcomes are just some of the complex challenges that libraries must address internally, within their institutions. The broader public issues, focused on economic development, intercultural awareness, scientific expertise, public policy development, K–12 education, and international competitiveness, confront higher education institutions—and their libraries—with additional challenges as the broader public itself grapples with an uncertain and often incomplete understanding of the mission, goals, and purposes of research, teaching,

and learning, in higher education. Because of the confluence of both internal and external challenges *and* opportunities for higher education, academic libraries are seeking greater engagement with a wider range of stakeholders and constituents than ever before in their history. Because academic libraries must grapple with the challenges and opportunities of their parent institutions, they are faced with the need to engage with both "internal" partners (whether student associations, teaching/learning centers, offices of research, and many others) and "external" partners beyond their campuses (whether local business development offices, school districts, health care providers, or museums). The field of opportunities for engagement is expansive and growing.

A Proposed Definition of Academic Library Engagement and Methods of the Study

This study responds to the following research question concerning engagement: *What are the emerging indicators of academic library engagement, as demonstrated by a literature review, an environmental scan of academic library strategic planning documents, and by telephone interviews with assessment officers or other administrators in selected academic libraries?* (see Appendix 1) In conducting this study, the investigators formulated the following provisional definition for academic library engagement, based on the Boyer framework for engagement and supplemented by review of strategic planning documents of selected academic libraries:

> Sustained, strategic positioning of the academic library to create collaborative, reciprocal relationships with identified partners in order to advance institutional, community, and societal goals; to solve institutional-level and community-level problems; to create new knowledge, new products and services; and to effect qualitatively different roles for academic libraries themselves through impact, integration, and outreach to their varied constituencies. (see Appendix 1)

In order to test the definition, the investigators devised a three-part plan: (1) conduct a literature review of academic library engagement[12]; (2) conduct an environmental scan of thirty academic libraries' strategic planning documents, and (3) based on a set of criteria, identify ten candidate academic libraries from the larger group of thirty, to interview by phone, with a standard set of questions concerning engagement (see Appendix 2 for interview questions). The phone interviews themselves were conducted during fall 2010.

The five criteria used to select the ten libraries to interview were: (1) ability to contribute to the definition of engagement (or to refine it); (2) explicit acknowledgement of engagement in strategic planning documents; (3) engagement present in assessment planning; (4) breadth of initiatives involving engagement; and (5) evidence of innovative practices.

The investigators identified the following ten projects, initiatives, or programmatic areas for examination as exemplars of either internal (to the library's home institution) engagement, or external (beyond the campus) engagement, according to the definition provided to the interviewees in advance:

1. ROI (Return on Investment) for the institution through strategic investments in its libraries
2. Campus-wide student learning initiatives
3. Student retention and student success initiatives and programs
4. Scholarly communication initiatives and programs
5. Institutional repositories
6. Data services programs
7. Support for interdisciplinary academic or research programs
8. New product/new process invention (R & D work)
9. New learning space design and collaboration
10. Community partnerships (partnerships beyond the institution in which the library participates that involve such institutions as local or regional service organizations, cultural heritage institutions such as museums, etc.)

The interviewees were sent in advance a Background Paper on Academic Library Engagement providing the provisional definition of engagement, examples of academic library engagement, and the ten project or program areas identified as possible venues for either internal or external engagement.

The Findings

Of the ten academic libraries invited to participate in this study, eight responded and agreed to be inter-

viewed. Interviews were conducted with appropriate library personnel—either those in administration or with assessment responsibilities—from the eight academic libraries with varying characteristics: three private and five public institutions; one baccalaureate college, one master's level university, and six research universities, including one large research university in Canada; and included three land-grant and two urban/metropolitan institutions.

Interviewees were asked to identify programmatic areas where they believed strong linkages existed at their institution to engaged activities. Those interviewed could identify multiple areas. It is interesting to note that only two libraries identified *community partnerships*, the most external area in the study, as an area of strength, while those centered more on campus life—*campus-wide learning initiatives* (5), *student retention and success* (4), *scholarly communication* (4), and *new learning space design and collaborations* (4)—received the highest.

The following lists of "Benefits" and "Metrics" come directly from questions asked of interviewees and illustrate the range of possibilities for thinking about library engagement and how it might be measured.

Benefits

- Visibility
- Reputation / credibility
- Value of library
- Impact of services
- Cultivation of partners, donors or friends
- Increased communication within the institution
- Increased reputation of librarians within faculty circles
- Better relationship with institutional administration
- Expansion of influence / opportunities at "the table"
- New products / branded niche
- Pride in collections
- Increased use of library services

Metrics

- Program effectiveness / outcomes measurement
- Survey feedback
- Learning outcomes
- # of partnerships / quality of partnerships (benefit realized)
- Cost / financial sustainability
- Saturation of use / # of submissions or items / accesses (IR)
- Attitudes toward OA
- Change measurement
- # tangible products: new books, knowledge, products, etc.
- Soft metrics
- Quality of relationships
- Proof of educational benefit
- # grants or monies attracted
- Management metrics (e.g., workload and assignment duties, flexibility)

TABLE 1
Programmatic Strengths of Interviewed Libraries (In Engagement)

	Interviewed Libraries								
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**TOTAL**
Campus-wide learning initiatives	X	X	X	X			X		**5**
Student retention & success	X	X	X				X		**4**
Scholarly communication		X		X		X		X	**4**
Institutional repositories		X		X		X		X	**4**
New learning space design/ collaborations	X			X			X	X	**4**
Data services programs			X	X					**2**
Community partnerships							X	X	**2**
Interdisciplinary academic & research programs			X						**1**
New product / process invention					X				**1**
Return on Investment (ROI)									**0**

The study finds that engagement with academic libraries takes many forms, when conditions allow affinity institutions or academic departments to partner, often with unclear expectations, and for limited periods of time based upon available resources and each partner's willingness to continue. Because of variable ideas about engagement, its relation to traditional notions about outreach, and the challenges of pursuing sustainable partnerships, this study did not result in definitive methods for creating successful engaged partnerships. However, by comparing the study's proposed definition and feedback from interview participants, the study makes it possible to come to a more workable definition and framework for metrics of academic library engagement.

The study assumed two levels of engagement, which were validated through the interviews: one within the institution and the other with outside public- or private-sector partners. Intra-institutional engagement seems to often be the first step in outreach or collaborative efforts, is easily justified and tied to institutional mission and student learning and success. These engagement initiatives appear to attain a sense of permanence due to a variety of factors whether through shared monetary sources, co-location of staff or services, or perceived mandate by an institution's administration or partnering institution's leaders, and aligned with strategic goals or aims. On the other hand, partnerships with outside entities seem to be narrow in scope, have requisite high levels of burden for a project's start (agreeing to common goals and purpose, identifying levels of resource support from each partner, and selling the project internally), and are likely viable only for a short time. That is not to say that external partnerships are divorced from an institution's primary education role; partnerships that offer community-level benefits and align in some way with an institution's strengths and foci seem only apparent in the service delivery of the partnering academic library. Successful external partnerships seem to be those that bridge the norms of intra-institutional engagement and widen the partnership's scope to be attractive to many levels of constituencies.

While the ideal of any proposed partnership is for sustainability and equality of resource commitment, the library, institution or community partner may experience undue burden for a variety of factors: unbalanced staff experience, physical resources or facilities; funding originating primarily only with one partner; or an unbalanced or tenuous leadership dynamic among partners. It may be the case that one partner, (the library, for example), must expend upfront resources in the hope that equilibrium of support will be achieved in the future, or perhaps the unequal expenditure of staff or resources is justified by a future, expected benefit. With the current state of library budgets, any partnership or program not tied directly to the university's mission or student success, is unlikely to be successful if partnering proves to be a continual drain on scarce resources. If there is a threat to either a self-sustaining model for staffing and funding, a partnering model (business model) for activity administration, or to an equality of output between the partners, the continued collaborative endeavor will not likely achieve true sustainability.

Additionally, it is difficult to define an ideal level of reciprocity represented in the definition, allowing that true reciprocal relationships may not always be warranted. For instance, perhaps part of the partnership's aims is to build capacity in others, which by necessity points to an unbalanced expert-novice dynamic. Equally important is the notion that primarily responsibility for success may not rest with the library, but with partners—creating a situation where the library lacks control of outcomes.

With these caveats in mind, the initial definition of engagement presents barriers to use. The definition does not define what a partnership is or whether there are engaged activities short of partnering. Are different forms of engagement dependent on a partnership's scope (e.g., institutional, community and societal)? And while it may be an easy exercise to identify new knowledge, products and services associated with particular partnerships, how can academic libraries prove success in effecting different roles for themselves?

When looking for characteristics of academic library engagement, subsequent metrics to measure these activities, and a vetted definition, library administrators, assessment specialists, and others should keep the following in mind:

- *Scope*: Per the definition, library engagement may be centered at the institution-level, or cast wider nets within the community (geographically local or regional, with those of similar missions, or with other academic libraries) and even more broadly among diverse institutions with aims at effecting societal change.

- *Relationship quality*: The University Outreach & Engagement Office of Michigan State University has produced a clear hierarchy that is useful here identifying outreach and engagement efforts in one of three categories—*one-time*, *project* or as a *partnership*. The same Office at Michigan State has created evaluation benchmarks and metrics that are helpful in thinking about library engagement.[13]

It is not necessary to maintain the crux of sustainability in some instances if a program's scope or quality of relationship is limited. And by necessity, metrics evaluating engagement will demonstrate varying degrees of sophistication as the partnership increases in complexity. Acknowledging the fluidity of purposes, metrics have been grouped in five categories to provide a suitable construct:

1. *Mission & Strategy*: these are undergirding measures that speak to the library organization's sense of engagement as crucial to its future. Explicit references to "engagement" are embedded in mission and vision statements and specific, measurable goals relating to engagement are carried throughout the organizational structure in strategic plans and associated action plans for each year.

> One interviewee specifically mentioned "strategic alignment" of library with institutional mission in a closely attuned way, as essential to deciding upon engagement and outreach activities. In other words, the library will become involved in partnerships internally and externally as guided by the institutional mission and strategic plan, which in turn drives the library strategic plan. "Mission & Strategy" were implicit in all of the interviewees' responses, but there was variability in how these overarching statements of value, purpose, and direction were guiding engagement, outreach, and partnerships.

2. *Role Definition & Positioning*: this category addresses strategic placement and position, and "attractor" features of the library as an engaged partner. Indicators and measures such as centrality, substantial or enabling contributions, or expanded influence as a result of redefinition of roles are core to this category.

> Interviewees mentioned enhanced ability to contribute substantially as partners as a result of assuming new roles, and a potential "multiplier effect" for further engagement as a result of initial or less intensive partnerships.

3. *Management & Resource Allocation*: measures associated with allocating library resources to accomplish work associated with partnerships while maintaining traditional library services and those important to the institution. These include staffing workload and training, money expended, and the extent of externally-focused activities, but also measures of a library's responsiveness to changing environs, and the capacity to address changing foci.

> Study participants repeatedly mentioned efforts to make the case for the value of their library within institutional contexts, whether in the form of ROI, usage data and service delivery, or supporting activities within the institution.

4. *Program Effectiveness*: this category seeks to explain how well new knowledge, new products, and new or elevated services are provided by partners. Metrics in this area fall short of explaining the impact on end users (which fall into the last "Outcomes & Impact" category), but seek to find the value and quality of the relationship dynamic between partners. While metrics of program effectiveness may encompass traditional library measures associated with inputs and outputs, they will also be select measures tied directly to delivery of the program's aims in terms of outcomes and impact.

> Interview participants were aware that collaborative endeavors need to be attractive to both the library and its partners. Short of assessments of outcomes and impact, measuring the value of shared programs and value to all participants, beyond the library, seems to often be a gap in measuring collaborations.

5. *Outcomes & Impact*: the end results and associated measures that gauge whether a program provides the anticipated changes sought by the partnership. These include learning outcomes, impacts in terms of institutional, community or societal gain, and impact on the library as a result.

Interview participants indicated clear benefits to engagement activities: increased visibility; better reputation; cultivation of relationships with educators, administrators, community groups, citizens, or potential donors; increased use of library services and spaces; and increased reputation of librarians as faculty.

Taken together these categories of metrics provide a global view of the interactions within the library,

TABLE 2
Dimensions Of Engagement & Example Metrics

Dimension Of Engagement	Qualitative Indicators	Quantitative Measures	Core Macro Measures
Mission & Strategy	Engagement embedded in mission and vision statements Engagement embedded in strategic planning process	Engagement-focused annual library goals Position duties with aspects of engagement Extent of involvement in stakeholder planning meetings across campus units	Sustainability Capacity-building Strategic alignment
Role Definition & Positioning	Degree of library participation in teaching, research, and service processes of the institution Expansion of influence as a result of engagement Increasing attraction of library as partner	Contributions to core strategic, institutional-level goals Faculty attitudes about Open Access Publishing Extent of donor/friends/ally cultivation	
Management & Resource Allocation	Flexibility and adaptation skills of library staff Business models supporting program-based resource allocation	Staff development programs focused on collaboration Externally-focused workload of staff Level of funding for engaged activities	
Program Effectiveness	Quality of relationships with project partners Reciprocity of learning processes with partners Formalized relationships and commitments	Degree/depth of partner participation Saturation of use/deposits in digital archive or IR Student involvement and leadership (e.g., number of student-led collaborative projects) Satisfaction of clientele	Sustainability Capacity-building Strategic alignment
Outcomes & Impact	"Proof of educational benefit" (collaboratively developed learning outcomes for instruction program) New knowledge and products developed with collaborators/ partners Enabling new knowledge and products to be developed by constituent communities	Collaborative projects or ventures completed Tangible products (software, open-source monographs or journals) or services developed Number of collaborative grants	

between partners, and between partners and participants. It is in the intersection of these categories that we can begin to measure the three broad macro measures of sustainability, capacity-building and strategic alignment in an intelligible manner

Conclusion

This study shows that this small cross-section of academic libraries is concerned about engaging with a wide range of constituencies and partners, mostly inside their own institutions (the inventory of ten programmatic initiatives and project areas are all internally focused, except for #10, "community partnerships", which as part of the design of the study almost certainly directed attention of the participants to internal initiatives and partnerships in an unbalanced way). However, the intersection or overlap of "internal" engagement and "external" engagement was implicit in many of the interviews, as participants spoke of the ramifications of library influence as "attractor organization" and enhanced reputation and visibility of the library. In one case, the convergence of "internal" engagement and "external" engagement was very clear, where the institution identified its top two programmatic strengths as "New Learning Space Design and Collaboration" and "Community Partnerships". In this instance, the collaborative venture in creating a new learning center involved community and regional partners, and the state-of-the-art facility created is an ongoing experiment in collaboration and engagement among the library, the library's internal partners at the university, and the university's external partners in the city and its larger geographical region.

The most distinctive macro-level considerations linked to engagement and collaborative ventures that emerged from this study are: sustainability; capacity-building; and strategic alignment. The investigators believe that these considerations must be translated into measures that academic libraries can use to demonstrate how they can developmentally move into more collaborative, value-enhancing projects with a wider range of partners within or beyond their campuses.

Taking into account the challenges and opportunities for engagement activities in libraries found through this study, the investigators offer the following revised definition of academic library engagement:

> *Sustained, strategic positioning of the academic library, through new or redirected resources, to create collaborative relationships with identified parties in order to advance institutional, community, and societal goals;*
>
> *through a progression of activities ranging from one-time initiatives, to longer-term projects, to enduring partnerships;*
>
> *to solve institutional- and community-level problems, or to support broad efforts to address long-range societal issues, through a range of engaged activities;*
>
> *to create new knowledge, new products and services through these strategic choices; and*
>
> *to effect qualitatively different roles for academic libraries themselves through influential, reciprocal, and value-enhancing relationships of mutual benefit to libraries and the varied constituents and publics with whom they collaborate.*

APPENDIX 1
New Metrics of Engagement for Academic Libraries

Note to participants: *In advance of the pre-arranged telephone interview, please review this document. Questions asked during the phone interview will focus on the proposed definition of academic library engagement below and on examples of academic library engagement at your institution in any of the ten programmatic areas or institutional priorities enumerated below.*

Research Question

What are the emerging indicators of academic library engagement, as demonstrated by a literature review, an environmental scan of academic library strategic planning documents, and by telephone interviews with assessment officers or other administrators in selected academic libraries?

Provisional Definition of Academic Library Engagement

Sustained, strategic positioning of the academic library to create collaborative, reciprocal relationships with identified partners in order to advance institutional, community, and societal goals; to solve institutional-level and community-level problems; to create new knowledge, new products and services; and to effect qualitatively different roles for academic libraries themselves through impact, integration, and outreach to their varied constituencies.

Examples of academic library engagement:

- a university library partners with a local museum in creating a digital exhibit of an American author's works held by the library and the accompanying illustrations from first editions of those works held in the museum archives; the digital exhibit is hosted on the library's web site and a celebration of the author's work is jointly sponsored by the library and the museum
- a college library works with the assessment office on its campus on a reaccreditation initiative that calls for student involvement in community projects; a reading program focused on "problems of American democracy" is collaboratively developed between the college library, the local public library, and a local community literacy organization
- a research library develops an open-source software tool to help faculty assess their data management projects; the tool is developed in partnership with the Center for Digital Scholarship on campus
- a university library develops an initiative in concert with the Admissions Office, the Office of Student Life, and the Alumni Association's Student Scholarship Project to provide "scholarship mentors" for students throughout their undergraduate careers in order to ensure greater retention and graduate rates
- a university library develops a scholarly communication series of events (lectures, town hall discussions) collaboratively with its Office of Research for faculty, students, and community members focused on applications of scholarship and research within the broader community

Programmatic Areas and Institutional Priorities for Study

1. ROI (Return on Investment) for the institution through strategic investments in its libraries
2. Campus-wide student learning initiatives
3. Student retention and student success initiatives and programs
4. Scholarly communication initiatives and programs
5. Institutional repositories
6. Data services programs
7. Support for interdisciplinary academic or research programs
8. New product/new process invention (R & D work)
9. New learning space design and collaboration
10. Community partnerships (partnerships beyond the institution in which the library participates that involve such institutions as local or regional service organizations, cultural heritage institutions such as museums, etc.)

Appendix 2
New Metrics of Engagement for Academic Libraries: Interview Questions

Institution:_____

1. In which of the ten programmatic areas, initiatives, or projects do you think your library is strongest in terms of engagement as previously defined? What makes your library's engagement in these endeavors especially strong?

2. In the areas where your library has been especially successful engaging partners and collaborators, what commonalities exist with regard to implementation and logistics? (e.g., creating "open virtual spaces for collaborative work among partners; setting aside dedicated "investment" funds each FY; reprioritizing staff responsibilities and changing position descriptions to facilitate collaboration)

3. Does your library's strategic plan explicitly mention "engagement" and enumerate goals for accomplishing it?

4. If your library has defined or described "engagement" in its strategic plan, how are its major elements similar to or different from those mentioned in the definition provided?

5. What staff development initiatives/processes has your library put in place to promote engagement?

6. How are your currently measuring programmatic effectiveness of your engagement with partners? What metrics serve as indicators of success?

7. Who in your organization is responsible for measuring the effectiveness of engaged collaborations and partnerships?

8. What benefits has your library achieved through partnerships or collaborations within or beyond the institution?

9. What would your library need to do in order to achieve greater engagement on its campus or with the larger community?

10. Is there anything you would like to add to our discussions today about academic library engagement?

Notes

1. For examples, see the following: Jerry Campbell, "Changing a Cultural Icon: The Academic Library as a Virtual Destination," *Educause Review*, 41, no. 1 (2006), 16–31; Kathryn Deiss, "Innovation and Strategy: Risk and Choice in Shaping User-Centered Libraries," *Library Trends*, 53, no. 1 (2004), 18–20; Deborah Grimes, *Academic Library Centrality: User Success Through Service, Access, and Tradition* (Chicago: ACRL, 1998); Anne Kenney, "Thought Happens: What Should the Library Do About It?" *Journal of Library Administration*, 49 (2009), 481–493; David Lewis, "A Strategy for Academic Libraries in the First Quarter of the 21st Century," *College & Research Libraries*, 68, no. 5 (2007), 418–434; John Lombardi, "Academic Libraries in a Digital Age," *D-Lib Magazine*, 6, no. 10 (2000); available at: http://dlib.org/dlib/october00/lombardi/10lombardi.html; Wendy Lougee, *Diffuse Libraries: Emergent Roles for the Research Library in the Digital Age* (Washington, D.C.: Council on Library and Information Resources, 2002), available at: http://www.clir.org/pubs/reports/pub108/contents.html; Lougee, "The Diffuse Library Revisited: Aligning the Library as Strategic Asset," *Library Hi Tech*, 27, no. 4 (2009), 610–623; Beverly Lynch et. al., "Attitudes of Presidents and Provosts on the University Library," *College & Research Libraries*, 68, no. 3 (2007), 213–227; Sarah Pritchard, "Deconstructing the Library: Reconceptualizing Collections, Spaces, and Services," *Journal of Library Administration*, 48, no. 2 (2008), 219–233; Carton Rogers, "There is Always Tomorrow? Libraries on the Edge," *Journal of Library Administration*, 49, no. 5 (2009), 545–558; *No Brief Candle: Reconceiving Research Libraries for the 21st Century*. Papers from a Meeting Convened in Washington, D.C., February 27, 2008. CLIR Publication no. 142. (Washington, D.C., Council on Library and Information Resources, 2008); *The Idea of Order: Transforming Research Collections for 21st Century Scholarship*. CLIR Publication no. 147. (Washington, D.C.: Council on Library and Information Resources, 2010); *The ARL Scenarios: A User's Guide for Research Libraries* (Washington, D.C.: Association of Research Libraries; Stratus, Inc., October 2010); *Futures Thinking for Academic Libraries: Higher Education in 2025* (Chicago: ACRL, 2010), available at: http://www.ala.org/ala/mgrps/divs/acrl/issues/value/futures2025.pdf; Susan Wawrzaszek and David Wedaman, *The Academic Library in a 2.0 World*, ECAR Research Bulletin, 19 (September 2008); James Michalko, Constance Malpas, and Arnold Arcolio, *Research Libraries, Risk, and Systemic Change*. A Publication of OCLC Research, 2010; available at: http://www.oclc.org/research/publications/library/2010/2010-03.pdf; *Ensuring a Bright Future for Research Libraries: A Guide for Vice-Chancellors and Senior Institutional Managers*. Research Information Network (U.K.). November 2008. Available at: www.rin.ac.uk.

2. Paula Kaufman, "The Library as a Strategic Investment: Results of the Illinois Return on Investment Study." *Liber Quarterly* 18, nos. 3/4 (December 2008), 424–436; Judy Luther, "University Investment in the Library: What's the Return? A Case Study of the University of Illinois at Urbana-Champaign," *Library Connect* (2008); available at: http://libraryconnect.elsevier.com/whitepapers/0108/lcwp0101.pdf; Regina Mays, Carol Tenopir, and Paula Kaufman, "Lib-Value: Measuring Value and Return on Investment of Academic Libraries," Research Library Issues, no. 271 (August 2010), 36–50; available at: http://www.arl.org/bm~doc/rli271-libvalue.pdf; Zsuzsa Koltay and Xin Li, *Impact Measures in Research Libraries*. ARL Spec Kit 318, September 2010 (Washington, D.C.: Association of Research Libraries); Stephen Town, "Building a Resource for Practical Assessment: Adding Value to Value and Impact," *Proceedings of the 2008 Library Assessment Conference: Building Effective, Practical, Sustainable Assessment*. Ed. Steve Hiller et. al. (Washington, D.C.: Association of Research Libraries, 2009); *Value of Academic Libraries: A Comprehensive Research Review and Report*. Researched by Megan Oakleaf. Chicago: ACRL, 2010.

3. Stephen Town, "Value and Impact Measurement: A UK Perspective and Progress Report on a National Programme (VAMP)." *Proceedings of the 2006 Library Assessment Conference: Building Effective, Practical, Sustainable Assessment*. Ed. Francine DeFranco et. al. (Washington, D.C.: Association of Research Libraries, 2007); Town, 2009; and Town, "Value and Impact and the Transcendent Library: Progress and Pressures in Performance Measurement and Evaluation." *2010 Library Assessment Conference: Building Effective, Practical, Sustainable Assessment* (proceedings to be published). Proceedings available at http://libraryassessment.org/.

4. Kellogg Commission, *Returning to Our Roots: Executive Summaries of the Reports of the Kellogg Commission on the Future of Public and Land-Grant Universities* (Washington, D.C.: National Association of State Universities and Land-Grant Colleges, 2001).

5. Hiram Fitzgerald, Cathy Burack, and Sarena Seifer, eds. *Engaged Scholarship: Contemporary Landscapes, Future Directions*. East Lansing, Michigan: Michigan State University Press, 2010; Stephen L. Percy, Nancy L. Zimpher, and Mary Jane Brukardt, eds. *Creating a New Kind of University: Institutionalizing Community-University Engagement*.

Bolton, MA: Anker Publishing, 2006.

6. See: Edgerton, R., *Education White Paper*, 2001, *http://www.pewundergradforum.org/wp1.html*, and Stephen Bowen, "Engaged Learning: Are We All on the Same Page?" *Peer Review* [Association of American Colleges and Universities] 7, no. 2 (Winter 2005). Available at: http://www.aacu.org/peerreview/pr-wi05/pr-wi05feature1.cfm

7. See Percy et. al., eds, *Creating a New Kind of University*; and for the major national leadership organization for civic and community engagement, see the web site for Campus Compact at: http://www.compact.org/about/history-mission-vision/

8. Ernest L. Boyer, "The Scholarship of Engagement," *Journal of Public Service and Outreach*, 1 (1996), 11–20.

9. Derek Barker, "The Scholarship of Engagement: A Taxonomy of Five Emerging Practices", *Journal of Higher Education Outreach and Engagement*, 9, no. 2 (2004), 123.

10. Ernest L. Boyer. *Scholarship Reconsidered: Priorities of the Professoriate*. Princeton, NJ: Carnegie Foundation for the Advancement of Teaching, 1990.

11. Barker, p. 124.

12. Scott Walter and Lori Goetsch, *Public Engagement*. ARL Spec Kit 312, September 2009 (Washington, D.C.: Association of Research Libraries); William Welburn, Janice Welburn, and Beth McNeil, *Advocacy, Outreach, and the Nation's Academic Libraries: A Call for Action*. Chicago: ACRL, 2010; Nancy Courtney, ed. *Academic Library Outreach: Beyond the Campus Walls*. Westport, CT: Libraries Unlimited 2009; David Salinero and Cynthia Beardsley, "Enhancing the Academic Experience: the Library and Campus Engagement," *College & Research Libraries News*, 70, no. 3 (March 2009) 150–152; John Shuler, "The Civic Value of Academic Libraries and The Open Source University," *The Journal of Academic Librarianship*, 33, no. 2 (March 2007), 301–303; Nancy Kranich, Michele Reid, and Taylor Willingham, "Civic Engagement in Academic Libraries," *College & Research Libraries News,* 65, no. 7 (July/August 2004), 381–383,388; Kathleen Halvorson and Jean Plotas, "Creating and Capitalizing on the Town/Gown Relationship: an Academic Library and a Public Library form a Community Partnership," *Journal of Academic Librarianship*, 32, no. 6 (November 2006), 624–629; Lynn C. Westney, "Conspicuous by Their Absence: Academic Librarians in the Engaged University," *Reference & User Services Quarterly*, 45, no. 3 (Spring 2006), 200–202; Angi Herold Faiks, "Libraries and Extension: Engaging in Partnerships," *Journal of Agricultural & Food Information*, 4, no. 3 (2002), 21–28; Karen Williams, "A Framework for Articulating New Library Roles," *Research Library Issues*, no. 265 (August 2009), 3–8; Nancy Herther, "Service Learning and Engagement in the Academic Library," *College & Research Libraries News* (July/August 2008), 386–389; Anthony Stamatoplos, "The Role of Academic Libraries in Mentored Undergraduate Research: A Model of Engagement in the Academic Community," *College & Research Libraries* 70, No. 3 (May 2009), 235–249; Kathleen Webb, Molly Shaller, and Sawyer Hunley, "Measuring Library Space Use and Preferences: Charting a Path Toward Increased Engagement," *portal: Libraries and the Academy*, 8, no. 4 (2008), 407–422; G.W. Brian Owen, and Kevin Stranack, "The Public Knowledge Project and the Simon Fraser University Library: a Partnership in Open Source and Open Access," *The Serials Librarian*, 55, nos. 1/2 (2008), 140–167.

13. For the three-level hierarchy, see: *In-Depth Approach to Enact Outreach and Engagement Agendas.* Office of University Outreach & Engagement, Michigan State University [see especially pp. 11–12]. Available at http://ncsue.msu.edu/files/criterion5Indepth.pdf. For benchmarks and general frameworks for assessing outreach and engagement, see: *Points of Distinction: A Guidebook for Planning & Evaluating Quality Outreach.* Office of University Outreach & Engagement, Michigan State University. Available at http://outreach.msu.edu/documents/pod_2009ed.pdf