

## **OCLC Research**

### **Excerpt of Proposal: Narrative**

#### ***How far have we come and what do we do next?***

#### ***An agenda for action-based research on student learning and success***

### **Introduction**

The editors of *The Chronicle of Higher Education* recently listed the following among the ten higher education trends: “A reliance on better marketing to survive enrollment challenges and create a stronger institutional identity. The golden rule: Know who your students are, and figure out how best to serve them.”<sup>1</sup>

The Association of College and Research Libraries (ACRL), which distributes the Higher Education Horizon report, has been aware of this trend, as indicated by its commissioned reports, e.g., *Value of Academic Libraries*, the Committee on the Value of Academic Libraries, and programs, e.g., Assessment in Action (AiA), which have helped academic librarians assess and communicate their impact on student learning and success. As a continuation and extension of this scholarship, the following proposal is submitted by Lynn Silipigni Connaway, Ph.D. and William Harvey, Ph.D. of OCLC, and Vanessa Kitzie and Stephanie Mikitish, both doctoral candidates in the Library and Information Science (LIS) program at Rutgers University. The proposal deliverables will depict current library value studies, direct future work, and help academic librarians to effectively communicate their findings with others in higher education.

### **Collection and synthesis of major ideas and themes**

#### ***Review and analysis of background resources and literature***

The ACRL background resources cited in the Request for Proposals<sup>2</sup> will provide the starting point for the project team’s analyses. In addition to the listed sources, the project team will conduct a literature search in academic library journals and conference proceedings for scholarly and practice-based literature that addresses library contributions to student learning and success. Literature published after the *Values* report timeframe will be included. Keyword searches will be conducted in higher education journals to identify studies related to academic libraries or outcomes assessments. The team will analyze the studies using content analysis to

portray the current state of library value studies in an institutional context, much like the *Value* report. The content analysis will identify the themes used in the project deliverables, which may include institutional factors, methodological components, and findings. These themes will be included in the report and in the visualization deliverables to identify practices and research that are transferrable to both practitioners and scholars. Academic librarians contribute to research productivity and the bibliography will include a section on this emerging specialty.

*Additional data collection and analysis*

A potential challenge in creating the deliverables will be to ensure that the findings resonate with practicing librarians and administrators in higher education. To solicit such feedback, the team will form an Advisory Group consisting of academic librarians at 12 institutions that include community colleges, 4-year colleges, and research universities from secular, non-secular, public, and private institutions representing the 4 geographical regions of the United States. Advisory Group members also have agreed to connect the project team with institutional administrators at the vice-president or provost level to discuss how the academic librarians communicate the impact of library services on student learning and success, faculty research, and university strategic priorities, and how these academic administrators envision the higher education landscape in the next 5 years. (Note: Full proposal included letters of support from library leaders at Anne Arundel Community College, Carnegie Mellon University, Clemson University, Colby College, Marquette University, Middlesex County College, Rutgers University, University of Denver, University of Colorado Boulder, University of Florida, University of Illinois at Urbana-Champaign, and University of Wyoming). The Advisory Group will conduct a video meeting in fall 2016 and meet at the ALA 2017 Midwinter Conference. Both meetings will be digitally recorded for content analysis and comparison to other collected data. See Project Plan and Schedule, below. The initial meeting will be conducted as a focus group interview to identify how these academic librarians communicate the impact of library services on student learning and success to their academic institutions. The project team will conduct individual semi-structured interviews with representatives from the provost offices at the Advisory Group members' institutions by phone or Skype. Each individual interview will be digitally recorded for content analysis and comparison to other collected data. Interview data will be analyzed using content analysis to identify themes that will inform the project deliverables. The focus group and semi-structured interview themes will be compared to the themes identified in the background resources and literature.

At the ALA 2017 Midwinter Meeting the project team will lead a brainstorming session with the Advisory Group to rank the themes identified in the literature and to identify practices and research based on the themes that are relevant to both practitioners and scholars.

## **Deliverables**

### ***Report***

#### *Introduction*

The report will provide a high-level overview of higher education trends where academic libraries intersect with student learning and success, and other institutional-level outcomes. These trends will be compared to the themes identified in the content analyses outlined above. Areas of particular interest will include higher education trends already addressed by academic libraries, and those trends and future trends that need to be addressed by academic libraries, identified by higher education stakeholders in the literature and in individual interviews.

#### *Actions to take*

Based on the analysis of the literature, the academic library programs and services that have had the greatest impact on student learning and success, or have the most promise to do so, will be highlighted. Between 5-10 exemplar cases will be categorized by the trends and themes, context, level of effort and impact, populations studied, effectiveness, etc., as identified in the literature. These cases will be useful to academic librarians for planning and communicating new services as well as for the assessment and evaluation of these services. They also will serve as a bridge for the next section of the agenda.

#### *Inquiry questions that remain*

The majority of the report will focus on a research agenda consisting of approximately 10-15 future-focused, key, outstanding research questions that the literature and interview data suggest are essential for academic libraries to explore. The report will define the possible parameters for each question and explain related scholarly work in a way that is accessible to newer practitioner-scholars so they can articulate their research questions, design studies, and communicate results. Each research question will include possible research methodologies including sample options, possible affordances of the research design, and potential difficulties or limitations in the research design.

## **Ancillary and supporting materials**

### *Live online open forums*

In addition to the Advisory Group, the project team also will solicit feedback from academic librarians in at least two live open forums. Possible forum topics will solicit feedback on library value, the report's findings, and the visualization component described in the next section.

### *Visualization component – Interactive visualization dashboard and information graphic*

The project team will construct an interactive web-based visualization dashboard to help librarians filter the existing literature for studies most relevant to their research interests. Filters will be available for the following Factors of Inquiry: collection or analysis methodologies, institutional characteristics, findings, and other areas suggested by the data and other ACRL projects, such as the AiA online collection of program summaries and reports. The dashboard will allow librarians to visualize and explore the data corresponding to these Factors, including their various combinations, projections, and transformations. A palette of both standard charts (e.g., bar or line charts) and novel, domain-specific representations will be available to visually organize this data.

The project consulting engineer, in collaboration with the Lead User Experience Researcher, will oversee usability testing of the dashboard by academic librarians in the OCLC Usability Lab. After testing, the Advisory Group members will have a chance to work with the dashboard and share their thoughts with other members and the project team.

The dashboard software will rely on a basic dataflow programming model combining relational algebra and category theory for transforming inquiry factors into visual components, and algebraic visualization design principles for ensuring that a set of visual elements is appropriate for representing data.<sup>2</sup> This formalization will simplify the interface, and will allow a librarian to compose transformations and visual components together like building blocks. To balance flexibility with ease of use, the project team will provide some prefabricated data queries that can be tuned using control widgets for novice users, and a more advanced scripting console or query builder may be added for expert users.

Librarians will be able to contribute their own methodological variables to the visualization database using a web form. This form will allow librarians to share their studies with others even if they choose not to publish. An appropriate authentication system will be implemented to prevent uploading inappropriate data or irreversibly damaging existing data.

The second visualization component will be a data visualization dashboard/tool that will help librarians communicate their value to their constituencies. This tool may allow them to enter local data and produce a graphic that could be shared with stakeholders.

## **Bibliography**

The report also will include a bibliography of sources used to inform the research agenda, with a separate section for studies on faculty productivity.

## **Notes**

1. The Chronicle of Education Editors, "An Executive Summary," *The Chronicle of Higher Education* 62, no. 25 (2016): B4.
2. ACRL Request for Proposals available online at <http://www.acrl.ala.org/acrlinsider/archives/11784>
3. Gordon Kindlmann and Carlos Scheidegger, "An Algebraic Process for Visualization Design," *IEEE Transactions on Visualization and Computer Graphics* 20, no. 12 (2014): 2181-2190.

### Project Plan and Schedule

EVENT	RESPONSIBLE PARTY	DEADLINE
<b>Project begins</b>		August 2016
<b>Content Analysis</b> of ACRL Documents Included with RFP	Project Lead (Connaway), 2 Doctoral Students (Kitzie and Mikitish)	August 29, 2016
<b>Search for relevant literature</b> in Higher Education Journals	2 Doctoral Students (Kitzie and Mikitish)	August 29, 2016
<b>Content Analysis</b> of Higher Education Journals	Project Lead (Connaway), 2 Doctoral Students (Kitzie and Mikitish)	August 29, 2016
Create the <b>Bibliography</b> for the Report	2 Doctoral Students (Kitzie and Mikitish)	August 29, 2016
<b>FYI Update</b> Submitted to ACRL Office for Review During ACRL Board Strategic Planning & Orientation Session, Baltimore, MD, September 14-16, 2016	Project Lead (Connaway), 2 Doctoral Students (Kitzie and Mikitish)	August 29, 2016
Plan and Conduct <b>Virtual Focus Group Interview</b> with Advisory Group	Project Lead (Connaway), 2 Doctoral Students (Kitzie and Mikitish)	October 21, 2016
Prepare and Present at <b>ARL Library Assessment Conference</b> , Arlington, VA, October 31-November 2, 2016	Project Lead (Connaway), 2 Doctoral Students (Kitzie and Mikitish)	October 31, 2016
<b>Code and Analyze</b> the Focus Group Interview	Project Lead (Connaway), 2 Doctoral Students (Kitzie and Mikitish)	November 4, 2016
Write <b>First Draft and Submit</b> to Task Force	Project Lead (Connaway), 2 Doctoral Students (Kitzie and Mikitish)	November 7, 2016
Prepare for and Participate in ACRL <b>Online Open Forum</b> (To Share Progress Update with Broader Community, Solicit Feedback)	Project Lead (Connaway), 2 Doctoral Students (Kitzie and Mikitish)	Mid November, 2016
Plan and Conduct 12 <b>Semi- structured Interviews</b>	Project Lead (Connaway), 2 Doctoral Students (Kitzie and Mikitish)	November 23, 2016
Feedback to Researcher(s)	Task Force	December 1, 2016
<b>Complete Coding and Analysis</b> of Semi-structured Interviews	Project Lead (Connaway), 2 Doctoral Students (Kitzie and Mikitish)	December 16, 2016
<b>Compare Themes from Content Analysis</b> of Documents and the Content Analysis of Semi-structured and Focus Group Interviews	Project Lead (Connaway), 2 Doctoral Students (Kitzie and Mikitish)	December 31, 2016
Write <b>Revised Draft and Advice Memo and Submit</b> to Task Force/ACRL Board	Project Lead (Connaway), 2 Doctoral Students (Kitzie and Mikitish)	January 10, 2017

*How far have we come and what do we do next?*

<b>Conduct Quantitative Analysis</b> for the Comparison of Content Analysis of Documents and Content Analysis of Semi-structured and Focus Group Interviews	Project Lead (Connaway), Engineer (Harvey)	January 13, 2017
Plan and Lead <b>Advisory Group Brainstorming Session</b> at <b>ALA Midwinter Conference 2017</b> , Atlanta, GA, January 20-24, 2017	Project Lead (Connaway), 2 Doctoral Students (Kitzie and Mikitish)	January 20, 2017
Prepare and Present at <b>ALA Midwinter Conference 2017</b> , Atlanta, GA, January 20-24, 2017, as Part of VAL Update Session	Project Lead (Connaway), 2 Doctoral Students (Kitzie and Mikitish)	January 20, 2017
Feedback on Revised Draft to Researchers	Task Force	February 8, 2017
<b>Develop Visualization Components</b> that Highlights the Major Themes in the Report and Help Librarians Communicate to Constituencies	Engineer (Harvey)	March 1, 2017
Conduct <b>Usability Testing</b> on the Visualization Component and Review and Synthesize Findings	Engineer (Harvey)	March 17, 2017
Prepare and Present at <b>ACRL 2017 Conference</b> , Baltimore, MD, March 22-25, 2017	Project Lead (Connaway), 1 Doctoral Students (Kitzie or Mikitish), Engineer (Harvey)	March 22, 2017
Write <b>Final Report</b> and Submit to Task Force/ACRL Board	Project Lead (Connaway), 2 Doctoral Students (Kitzie and Mikitish), Engineer (Harvey)	May 1, 2017
Public Release of <b>Final Report</b>	Task Force	May 23, 2017
Prepare for and Participate in the ACRL Online <b>Open Forum</b>	Project Lead (Connaway), Engineer (Harvey)	Mid June 2017
Prepare, Present, and Discuss Final Report at <b>ACRL Open Forum</b> at the <b>ALA Annual Conference 2017</b> , Chicago, IL, June 22-27, 2017, as Part of VAL Update Session	Project Lead (Connaway), 2 Doctoral Students (Kitzie and Mikitish)	June 25, 2017