Evidence Based Library and Information Practice

Commentary

Evidence-Based Scholarly Communication: Information Professionals Unlocking Translational Research

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Introduction

The Evidence-Based Scholarly Communication Conference (EBSCC) was held March 11-12, 2010 in Albuquerque, NM. The conference addressed the perceived gap in knowledge and training for scholarly communication principles in the National Institutes of Health (NIH) Clinical and Translational Science Award (CTSA) Program. The EBSCC brought together librarians and information specialists to share evidence based strategies for developing effective local scholarly communication support and training and, it is hoped, to form new coalitions to address this topic at the local and national levels. This brief communication summarizes the need for the

conference, highlights the general sessions in order of presentation, and introduces the EBSCC research papers appearing in this issue of *Evidence Based Library and Information Practice (EBLIP)*. It also includes a description of a unique peer-review process methodology pioneered at EBSCC.

Background

The United States' National Institutes of Health (NIH) Clinical and Translational Sciences Award (CTSA) Program replaced, with the goal of improving upon, the thirty year-old General Clinical Research Center Program. The CTSA Program seeks to increase the speed in which scientific discoveries are translated from the laboratory bench into healthcare practice in the community. The CTSA Program intends to accomplish this goal by funding the establishment of multiple clinical and translational science centers that will, in turn, provide a wide range of support and resources designed specifically to support the training of and the work done by translational investigators.

The CTSA in the United States resembles similar initiatives in other countries including Japan (Nakaya, Shimizu, Tanaka, & Asano, 2005), Australia (Australian National University, 2010; Glascow, 2010; National Health and Medical Research Council, 2010), the United Kingdom (National Health Service, 2010), and Costa Rica (Colón-Ramos Lindsay, Monge-Rojas, Greaney, Campos, & Pearson, 2007). In Canada, both the National Research Council Canada and the Canadian Institutes of Health Research pursue translational sciences activities (Wilson & Neilson, 2010).

Translational science as a discipline embraces the motto "From bench to bedside to the community." Paradoxically, the NIH CTSA Program does not require established centers either to train or support translational investigators in the use of the increasing number of new venues for sharing and disseminating research results. These venues include institutional repositories, open access electronic journals, and electronic materials to supplement traditional publications. Although, the NIH does insert wording about mandatory compliance with its Public Access Policy at the end of the funding opportunity announcement for the CTSA Program, it does not include any mention of these new scholarly dissemination options (National Center for Research Resources, 2010). In addition, the funding opportunity announcement does not include improved dissemination of research results in its list of suggested curricular elements such as biomedical informatics, research ethics, and biostatistics. Nor is there mention of any scholarly communications skills training that might encompass copyright management, open access publication, or the use of institutional repositories. These scholarly communications skills are arguably critical if translational investigators are going to capitalize on the expanding number of novel scholarly communication venues to foster better translation of their scientific discoveries into practice and get the most value out of their scholarly work.

The authors attempted to address this gap by coordinating a conference specifically designed to foster the exchange of ideas on how to best promote new methods in scholarly communication, specifically in translational research communities. We were involved in securing a CTSA grant for the University of New Mexico's Clinical and Translational Sciences Center, and were already teaching a biomedical informatics course that included open-access publishing options among other scholarly communication topics (Kroth, Phillips, & Eldredge, 2009). From our experience in promoting local NIH Public Access Policy compliance and supporting our institution's digital repository, we recognized the challenges inherent in engaging the community of translational investigators and the need for a national effort by information professionals to address this dissemination problem.

Two of the authors (PK, HP) attended the Association of Research Libraries (ARL) Institute on Scholarly Communication in

Chicago in December of 2006 (Association of Research Libraries, 2010). This outstanding Institute was targeted toward a wide spectrum of academic domains including liberal arts, law, and engineering, in addition to the biomedical sciences. The two attendees felt the Institute model could be adapted to the translational research investigator community, which had sufficiently unique needs to justify a special focus. Another author (JE) gave a presentation at the 2008 Medical Library Association Annual Meeting in a section program devoted to serving institutions with CTSAs. Health sciences librarians attending this program responded enthusiastically to the reported efforts. This enthusiasm reinforced the authors' belief in the need for a special conference.

We applied for and received a NIH National Library of Medicine Conference Grant to partially offset costs. Forty-six librarians and other information professionals, representing 25 institutions around the US, attended the EBSCC conference on March 11-12, 2010 in Albuquerque, New Mexico. The majority of the attendees were from CTSA funded institutions or institutions currently applying for a CTSA. A complete copy of the conference's notebook that includes a detailed agenda and speaker biographies is freely available. (Kroth, Bowler-Hill, Eldredge, & Phillips, 2010)

Proceedings

The conference began with a welcome from the University of New Mexico's Vice-President for Translational Research, Dr. Richard Larson, who is also the Principal Investigator on UNM's funded CTSA. A lively Keynote address from Kara Malenfant, Scholarly Communications & Government Relations Specialist at the Association of College and Research Libraries, followed. Ms. Malenfant reviewed the history of academia and reminded the group to "respect the pain of change" in long-standing institutions, especially when attempting to promote and foster the use of open-access publication venues by translational investigators. Ms.

Malenfant also applied organizational change theories to the dynamics of fostering change on large and complex organizations such as institutions with CTSAs.

Kevin L. Smith, Scholarly Communications Officer at Duke University next led a session on "The Legal Landscape for Moving from Bench to Bedside" by highlighting copyright issues germane to the translational research environment (Smith, 2010). Mr. Smith also discussed the novel copyright issues related to new technologies, such as shared electronic lab notebooks intended to foster collaboration. After lunch, Holly Phillips, one of the conference's organizers, led a session entitled "Novel Uses of Institutional Repositories" (Phillips, 2010). Ms. Phillips described the relative success of institutional repositories since inception and highlighted new user-based initiatives that show a promising future for institutional repositories. She then led the group through an exercise on applying the lessons learned with institutional repositories and changing investigator needs, such as data curation, to the CTSA community. The afternoon proceedings concluded with the research presentations session facilitated by Jonathan Eldredge, of which two presentations appear in this issue of *EBLIP*.

The first day of the conference concluded with a dinner at the Domenici Center for Health Sciences Education on the UNM Health Sciences Center (UNM HSC) campus with Dinner speaker Dr. Holly Shipp Buchanan, Associate Vice President for Knowledge Management and IT, UNM Health Sciences Library and Informatics Center. Dr. Buchanan described how strengthening scholarly communications "empowers the powerhouse" of the "great American university" (Buchanan, 2010). Dr. Buchanan highlighted UNM Health Sciences Library and Informatics Center's (HSLIC) diverse efforts to support scholarly communication at the UNM HSC through the model of librarian as educators and researchers. Some of these efforts included an annual scholarly communications conference, support for an institutional repository, inclusion of a required for-credit Biomedical

Informatics course taught by HSLIC faculty in the Masters of Science in Clinical Research degree program, and a Biomedical Informatics Program.

Dr. Philip Kroth, conference planning committee chair and David Gillikin, Chief of the Bibliographic Services Division at the U.S. National Library of Medicine began the second day with a two-person panel discussion. Mr. Gillikin provided an overview of The National Institutes of Health Public Access Policy webpage (National Institutes of Health, 2010) and provided an update on "Resources for Complying with the NIH Public Access Policy" (Gillikin, 2010). Dr. Kroth provided an overview of how the UNM group leveraged the need for a biomedical informatics course as a required part of UNM's CTSA Program to effectively engage future translational investigators in training on various aspects of open access publication (Kroth, 2010). In addition he shared UNM's experience with NIH Policy promotion and support activities and summarized research results on UNM's Policy compliance. A lively question and answer period followed on how to best promote compliance with the Policy at "CTSA-minded institutions," i.e., institutions with funded CTSAs or those interested in applying for one. An upcoming publication will report on the main ideas, common challenges, and success stories captured during this session.

Dr. Jonathan Eldredge from UNM HSLIC facilitated a two-hour interactive "Advocacy Communication Workshop: Crafting a 3-Minute Message for Open Access". Special guest Nancy Ridenour, Dean of the UNM College of Nursing and former Robert Wood Johnson (RWJ) Foundation Fellow assisted with the workshop. RWJ Fellows spend 2-3 year residing in Washington, DC, learing about health policy by working on a Congressional or White House committee. Dr. Ridenour gave an overview of her experience in Washington working on the politically powerful United States House of Representatives Ways and Means Committee and shared tips for gaining the attention of

busy, goal-oriented people. Drs. Eldredge and Ridenour led the participants through several exercises teaching participants to focus on the salient points of scholarly communication of interest to translational researchers and administrator (Eldredge & Ridenour, 2010).

The conference concluded with a session entitled "Where do We Go from Here?" facilitated by Karen Butter , Assistant Vice Chancellor for Library Services and Instructional Technology, Library and Center for Knowledge Management at the University of California San Francisco. Ms. Butter used the Nominal Group Technique (Cross, 2005; Delbecq, Van de Ven, & Gustafson, 1975; van Teijlingen, Pitchforth, Bishop, & Russell, 2006) to develop priorities for action following the conference. These recommendations will be summarized in a forthcoming publication. The conference organizers also conducted a pre- and post-test of attendees on the efficacy of this type of venue. These results will be highlighted in an upcoming publication as well.

Research Program

The Evidence Based Scholarly Communication Conference (EBSCC) featured four research project presentations. The papers were selected on the basis of relevance to the Conference, the inclusion of applied research methods and the potential for post-conference publication. The selected papers reflect a diversity of research methods including program evaluation, cohort design, citation analysis, and action research techniques. The Conference paper sub-committee (JE and PK) worked extensively with the authors of the papers after the conference and two of them are included in this issue of *EBLIP*. (Donahue, 2010b; Gilliland, 2010a)

EBSCC featured a new peer review method. Moderator Jonathan Eldredge asked each audience member to engage in "Real-Time Peer Review" by completing anonymous feedback forms on methodology, interpretation, and presentation immediately following each presentation. Audience

members could also volunteer their assistance with improving the authors' manuscript by providing their names and email addresses on the forms. The four presenters received suggestions for improvement from EBSCC participants as indicated by the numbers in parentheses following their names: Banks (26); Bardyn (20); Donahue (24); and Gilliland (18). Dr. Eldredge reviewed, scanned, and returned the forms to the presenters within two hours of pesentation to ensure immediate feedback. Each presenter resubmitted revised manuscripts that integrated the "real time" peer reviewers' comments following EBSCC. Drs. Eldredge and Kroth performed a final review before the authors were asked to submit their manuscripts to *EBLIP* for independent, anonymous peer review.

Marcus Banks, and Anneliese Taylor, from the University of California, San Francisco presented their work titled "An Analysis of the Impact of Open Access Articles in Translational Medicine" (Banks & Taylor, 2010). This work compared the performance of both an open-access journal and a subscription-based journal using "…techniques of article-level metrics recently established by the Public Library of Science (Public Library of Science, 2010) to enable a robust comparison of the differential impact of open and closed access."

Tania P. Bardyn, et al. from the University of California, Los Angeles (UCLA), presented the work titled "Measuring the Effectiveness of NIH Public Access Policy Programming and its Capacity as a Model for Open Access" (Bardyn, Brennan, Camp, Carter, & Farb, 2010). The research analyzed attitudes of translational investigators regarding in-person workshops on NIH Policy compliance at UCLA. Interestingly, the study concluded that translational investigators preferred self-directed formats over in-person training or individualized librarian consultation.

Amy Donahue, from the Bio-Medical Library at the University of Minnesota, presented her work entitled "Google Wave: Have CTSI-minded institutions caught it?" (Donahue,

2010a). Ms. Donahue conducted a case study involving action research evaluations of the utility of Google Wave by actually using Google Wave itself to conduct a survey on its usefulness in CTSA-minded institutions. Ms. Donahue concluded that the technology is too new yet to determine whether this will be of value to translational investigators (Donahue, 2010b).

Anne Gilliland, from Ohio State University, presented her work titled "Open Access Day at Ohio State University" which reviewed the lessons learned from the Prior Health Sciences Library's attempt at open-access publication promotion (Gilliland, 2010b). A small-sized survey showed very favorable feedback from participants and interest in another such event for the following year (Gilliland, 2010a).

Conclusion

The research reports and attendees identified common themes. First, health sciences librarians experience difficulty in identifying translational investigators at an institution, a prerequisite to effectively publicizing specific resources for supporting publication in open access venues. Librarians could explore ways to identify translational investigators within their institutions. The process would be helpful for libraries and investigators alike since collaboration is central to translational science. Librarians could become involved in supporting investigator networks like Vivo (www.vivoweb.org) and/or other productivity and data management tools. Information on open access could be woven into these activities. Second, health sciences librarians generally find it challenging to engage with, support and train translational investigators. Librarians must have a practical, proven and timely open-access toolkit to offer investigators. An often repeated theme was the desire for a central repository or meeting for evidence based practices in order to save time and costly duplication of effort. Work in this area could be critical to the sharing of best practices across similar institutions and the ultimate success of open-access publication. The Conference confirmed the authors' intial

premise that CTSA-funded institutions pose unique challenges in support of open access. There is great potential in this area moving forward.

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