

Ethics Day: Engaging Librarians in the Responsible Conduct of Research

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Acknowledgements

This report summarizes the main points of discussion of a workshop convened to advance knowledge and practice for ethics among library and information scientists. It is a product of the Ethics in Science and Engineering National Clearinghouse (ESENCe) Beta Project, and an extension of an October 2009 ESENCe workshop, "Ethics in Science and Engineering: Redefining Tools and Resources."

The ESENCe project was one of two 18-month beta site projects supported by the National Science Foundation (NSF) to advance understanding of the key dimensions required for a national online clearinghouse in ethics for science and engineering. It was directed by the National Center for Digital Government; the Science, Technology and Society Initiative; the Center for Public Policy and Administration; and the University Libraries at the University of Massachusetts (UMass) Amherst. More information about the ESENCe is available through the project website www.umass.edu/sts/esence.

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Please address correspondence regarding the report to Jane Fountain, principal investigator and director of the National Center for Digital Government and Science, Technology and Society Initiative, 202 Gordon Hall, University of Massachusetts Amherst, 418 North Pleasant Street, Amherst, MA 01002, and sts@pubpol.umass.edu. Ethics Day presentation slides, speaker biographies, and useful RCR resources are available at <http://guides.library.umass.edu/ethicsday>.

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Executive Summary

Training in ethics and the responsible conduct of research (RCR) has received increasing attention from administrators, scientists, engineers, and ethics education experts due to a new National Science Foundation (NSF) RCR training requirement. While the National Institutes of Health (NIH) has had requirements for ethics training since 1989, NSF implemented a policy mandated by the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science (COMPETES) Act (42 U.S.C. 1862o-1) in January 2010. It requires institutions that seek funding from the NSF to outline plans for ethics training for undergraduates, graduate students, and postdoctoral fellows, and mentoring for postdoctoral fellows. Programs are being developed and refined to address this requirement at the institutional level, and the work involved should not be underestimated.

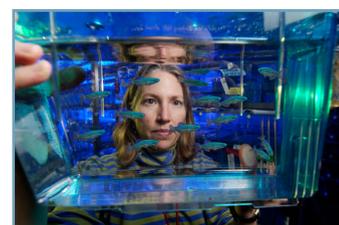
Since ethics and RCR training is now required by at least two major federal funders, and institutions are re-evaluating and creating local training programs, librarians should have a fundamental understanding of research ethics and RCR. They should further play a role in development and support of ethics training and education. This report describes a workshop for librarians on research ethics and maps out roles and future directions for librarians in research ethics.

Engaging Librarians in the Responsible Conduct of Research

The University of Massachusetts Amherst Libraries hosted “Ethics Day: Engaging Librarians in the Responsible Conduct of Research,” a professional, one day workshop for New England area librarians, on Friday, October 8, 2010.¹ This event was part of the Ethics in Science and Engineering National Clearinghouse (ESENCe) Beta Project at the University of Massachusetts Amherst (NSF SES 0936857), which partnered the Libraries; the Science, Technology and Society Initiative; the National Center for Digital Government; and the Center for Public Policy and Administration. ESENCe was one of two beta projects funded by the National Science Foundation (NSF) in response to new ethics requirements in the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science (COMPETES) Act (42 U.S.C. 1862o-1).

A product of this grant was ESENCe, an 18-month digital resource that hosted inter- and multidisciplinary materials on ethics for science and engineering disciplines. The beta site development demonstrated one role for librarians in research ethics: creating resource sites through the collection and dissemination of ethics materials. Ethics Day sought to identify additional opportunities for library science involvement in the development of appropriate ethics education across disciplines. The workshop was designed to provide librarians with new knowledge about research ethics and to demonstrate possible roles for libraries as institutions consider new ethics trainings or requirements.

A diverse group of faculty, administrators, and librarians presented current issues in research ethics and ethics in librarianship. The first two sessions provided an overview of some of the central issues in research ethics training and education to provide all attendees with a better understanding of the issues that their campuses face. Two additional sessions gave concrete examples of the ways in which librarians can directly advocate for ethical research and ethical dissemination of research, and two final sessions focused on ethics in librarianship. A keynote address explored the “landscape of ethics collaboration” to situate ethics and the responsible conduct of research (RCR) training in a larger, international context.



¹ The complete workshop schedule is available in Appendix A.

Central Issues in RCR and Ethics Training

New ethics policies from funders have prompted many institutions to review and reassess existing ethics trainings, certifications, or requirements. Serving as links to multiple disciplines and centralized resources for a range of university affiliates -- from undergraduate to graduate students, and from lecturers to full professors -- librarians and libraries must understand the current political and cultural climate for RCR.

Jennifer Donais, associate director of the University of Massachusetts Amherst Office of Grant & Contract Administration, outlined a history of ethics requirements of NSF and NIH. As a foundation, librarians should be aware of the nine Office of Research Integrity Core Areas of RCR: research misconduct, protection of human subjects, animal use and welfare, conflicts of interest, data management practices, mentor and trainee responsibilities, collaborative research, authorship and publication, and peer review. When librarians understand the legal justifications for new requirements, as well as background information for the processes and procedures implemented at various institutions, they become catalysts ushering in a new climate for new research ethics and can more effectively help researchers to frame research questions, prepare grant proposals, or manage existing or unforeseen ethical dilemmas. Moreover, scholarly communication librarians work on a daily basis with issues of collaborative research, authorship and publication, and peer review, so it is important for them to be cognizant of the ethical complications of these issues that researchers may be facing.

Elizabeth Buchanan, director of the Center for Applied Ethics at the University of Wisconsin-Stout, introduced attendees to complexities inherent in Internet Research Ethics (IRE). As principal investigator for the Internet Research Ethics Digital Library, Resource Center, and Commons,² Buchanan advocated for a transformation of traditional models of research ethics. Moreover, as a PhD- and MLIS-prepared researcher, Buchanan was a critical bridge between librarians and the field of research ethics. Buchanan outlined a new framework for ethics, methodologies, and rules for e-research and posited that currently well-defined issues such as human subjects, intentionality, and cultural, disciplinary, and institutional differences must be re-assessed when conducting and reviewing e-research. Indeed, a new discourse on ethics is necessary for responsible e-research; such transformation is noticeable in how institutional review boards are approaching Internet research. Regardless of the language used to discuss ethics or the processes and policies in place, IRE involvement should be a natural extension of day-to-day work for many librarians, given their familiarity with Internet resources, trends, and research.

² See <http://internetresearchethics.org/>

Role of the Librarian

Roles for librarians in research ethics have not been widely documented or recognized. Two Ethics Day sessions gave concrete examples of the ways in which librarians can directly advocate for ethical research and ethical dissemination of research. Nancy Harger and Judy Nordberg (both Education and Clinical Services Librarians at the University of Massachusetts Medical School Lamar Soutter Library) spoke about their experiences serving on the University of Massachusetts Medical School's IRB, a position foreign to most academic librarians. Nancy Pontika (adjunct faculty at the Graduate School of Library and Information Science at Simmons College), on the other hand, presented on a role more familiar to library scientists: open access promoter.

As IRB members, Harger and Nordberg supported protocol reviewers, primarily performing original searches for each protocol to supplement the work of the principal investigators. To fill an existing gap in the review process, they mentioned that librarians could also perform literature searches for principal investigators before a protocol was reviewed. Not only did serving on an IRB introduce Harger and Nordberg to a new dimension of research, but it supported the library's mission of outreach, enabled networking across campus, refined search skills, and contributed to an understanding of the clinical trial approval process. IRB participation supports the service mission of many college and university libraries, and directly inserts librarians into the faculty research process.

Although Pontika's presentation topic was a familiar one to most librarians, considering the ethics of open access added a distinctive dimension to the open access debate. Pontika's presentation situated the state of scholarly communications and the open access movement squarely in line with the evolving ethics and RCR-awareness at many academic institutions.

In addition, moral arguments in favor of open access were presented, including author control, empowering free flow of scientific information, and enabling taxpayer access to publicly funded research. Pontika also advocated for librarians to train faculty members, administrators, university presses, and other library staff on open access issues due to their expertise on journal evaluation, publisher practices, copyright and licensing, and ability to find other resources. Providing education on open access issues and understanding



ethical arguments in favor of open access relates to the work involved with serving as a resource on issues of collaborative research, authorship and publication, and peer review, and understanding the ethical complexities of those issues.

Ethics in Librarianship

The last two sessions focused on ethics in librarianship. The increasing emphasis on research ethics at funder and institutional levels provides librarians with the opportunity to brush up on professional ethics. John DeSantis, Cataloging and Metadata Services Librarian at Dartmouth College, outlined the American Librarian Association's (ALA) Library Bill of Rights and Codes of Ethics, drawing from his experience serving on the ALA Committee on Professional Ethics. Citing the literature, he pointed out that confidentiality and privacy, integrity, equal access to information, and professional development were the most frequently identified principals in library codes of ethics. While ethics trainings are not generally required of librarians, they can seek out ethics education opportunities in order to develop professionally and to be able to relate to the various ethics trainings and education taking place in academia.

In science, technology, engineering, and mathematics fields (STEM) fields, mentorship is often discussed in relation to ethics education as a form of modeling scholarly integrity. Hongjie Wang, Head of the Information and Education Services Department at Lyman Maynard Stowe Medical Library at the University of Connecticut Health Center, discussed the benefits of implementing a mentoring program for librarians. As an author of articles on academic mentorship in libraries and a member of mentoring programs at the University of Connecticut Health Center, Wang made a case for mentorship as a part of professional development, especially given that many aspects of librarianship are often learned on the job. Indeed, on-the-job training is particularly relevant for science librarians who often find themselves learning disciplinary matter based on their professional appointment. Because most libraries do not explicitly focus on professional ethics, a mentoring relationship could be a crucial tool for safely resolving moral dilemmas in the workplace.

The Landscape of Ethics Collaboration

Sheila Bonde, professor of history of art and architecture and professor of archaeology at Brown University, gave a keynote lecture on the current institutional ethics environment. While scholarly integrity has been long recognized as a pressing issue within academic communities, few scholars have examined how the cultural context in which ethical decision making occurs influences outcomes or action. Bonde, however,



who has led ethics training for graduate students as the Dean of the Graduate School at Brown for numerous years, has examined these issues as principal investigator of an NSF-funded project investigating the cross-cultural challenges of ethical decisions and developing new contextually-focused ethics training programs.

Bonde's address highlighted the necessity to view ethical dilemmas from both a micro and macro perspective. While ethics and scholarly integrity are valued on an international level, ethical decision-making takes place at both an individual and institutional level and always within different cultural contexts. It is impossible to fully understand any dimension of ethics without examining the context in which it is situated. Thus, legal, political, and social variations across cultures must be taken into consideration when implementing ethics education programs.

Moreover, science is increasingly globalized and takes place at an international scale. Technology has enabled immediate collaboration across borders and rapid dissemination of information. This internationalization of science has the potential to dramatically impact ethics education and training because it greatly expands ethical dimensions for research. Ultimately, Bonde asked if the "international character of research [would] bring about a uniform, international ethical standard for research or will these be limited and defined by cultural differences in ethical decision-making?"

Regardless of how globalization may affect ethics, librarians remain well prepared to interpret and disseminate new findings, policies, and standards. Librarians are well aware of the global impact of online research related to dissemination of and access to information, and Bonde inspired the audience to think even more broadly about an increasingly global research and development environment.

Roles and Future Directions for Librarians in Research Ethics

Raising awareness about ethics education and training and RCR amongst librarians is critical. Librarians work to support research and learning and are in excellent positions to play important roles in support of research ethics. Continued emphasis on the development of online resources in support of research ethics is a crucial first step. Several examples currently exist which may act as models for development. EthicShare



is a research and collaboration website for ethics developed at the University of Minnesota that includes several librarians on the project team. Another example is the Ethics Education Library (EEL) developed by the Center for the Study of Ethics in the Professions at the Illinois Institute of Technology. EEL has partnered with the National Academy of Engineering's Online Ethics Center and is managed by a librarian. Finally, the National Center for Professional and Research Ethics under development at the University of Illinois at Urbana-Champaign includes a librarian as one of the co-principal investigators.³ Liaison librarians should become aware of these resources and their discipline's domain-

specific ethics issues, as many faculty will need to provide or participate in the training of students and postdocs, and may seek resource referrals from their librarians on these topics. For example, the librarian who manages EEL makes materials referrals for NSF Research Experiences for Undergraduates (REUs).

Another documented role that librarians can take to support research ethics is serving on an IRB (Cheek & Bradigan, 2008; Frumento & Keating, 2007; Robinson & Lipscomb, 2005; Wessel, Tannery, & Epstein, 2006). Several workshop attendees reported participation on Institutional Care and Animal Use Committees (IACUC), very similar work. Most of the literature on librarians serving on IRBs describes experiences of health sciences or hospital librarians, but there is also a role for librarians who serve STEM fields. Responsible Literature Searching for Research: A Self-Paced Interactive Educational Program is an excellent tutorial for both librarians and researchers on literature searching for IRBs. It is authored by Charles Wessel, a Health Sciences Library System Reference Librarian at Health Sciences Library System at the University of Pittsburgh.

Librarian advocacy for open access is well-established (Albert, 2006; Chan, Kwok, & Yip, 2005; Palmer, Dill, & Christie, 2009), as are the ethical justifications for open access (Covey 2009; Harnad, 2007). The ethics of open access are related to the broader topics of ethics in scholarly communication discussed above: publishing and authorship, peer review, and collaborative research. This advocacy is a third role that librarians can take in support of research ethics. Libraries are just beginning to partner with research administrators and offices of grants and contracts to deliver services to researchers such as data management plan consulting and

³ Links to each of these websites are <https://www.ethicshare.org/>, <http://ethics.iit.edu/eelibrary/>, <http://www.onlineethics.org/>, and <http://nationalethicscenter.org/>, respectively.

the hosting and dissemination of grant-funded research outputs. More partnerships regarding the ethics of scholarly communication are possible, particularly for research-intensive institutions. For example, libraries could develop systems that support collaborative work on a technical level or they could provide researchers with material dissemination options.

Resource development and referral work, IRB, and IACUC involvement, and ethics in scholarly communication are well documented on their own, but rarely exist in the broader context of librarian involvement with research ethics. This report outlines these roles for librarians in research ethics. Librarians who serve science and engineering disciplines should understand core and discipline-specific issues in research ethics and be able to provide services or make referrals to appropriate resources. Given the growing emphasis on research ethics at funder and institutional levels, librarians should become familiar with ethics in our own field. Ethics Day strove to engage librarians with these issues and could serve as a model for low-cost, consciousness raising programs that will more formally document and develop the role of librarians in science and engineering ethics.

Further Reading

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Appendix A: Workshop Schedule

Ethics Day: Engaging Librarians in the Responsible Conduct of Research

W.E.B. DuBois Library, University of Massachusetts Amherst

October 8, 2010

9:00 Registration

9:30 Welcome

Jay Schafer, Director of Libraries, UMass Amherst

9:40 Keynote: "Beyond RCR: The Landscapes of Ethics Collaboration"

Sheila Bonde, Professor of History of Art and Architecture and Archaeology, Brown University

10:40 "Funder Requirements for Ethics Training"

Jennifer Donais, Associate Director, Office of Grant and Contract Administration, UMass Amherst

11:10 "On the Internet, No One Knows You're a Researcher"

Elizabeth Buchanan, Associate Professor, School of Information Studies, UW-Milwaukee and
Director, Center for Information Policy Research

12:00 Lunch

1:00 "Principles and Ethics for Librarians"

John DeSantis, Cataloging & Metadata Services Librarian, Dartmouth College Library

1:45 "The Ethics of Open Access"

Nancy Pontika, Graduate School of Library and Information Science, Simmons College

2:30 Break

3:00 "Embedded in the IRB"

Nancy Harger and Judy Nordberg, Education and Clinical Services Librarians, Lamar Soutter
Library, University of Massachusetts Medical School

3:45 "Mentoring Rocks!...if done appropriately"

Hongjie Wang, Head, Information and Education Services, Lyman Maynard Stowe Medical Library,
University of Connecticut Health Center

4:30 Discussion and Closing