Research Roadshow: Research Design beyond the Ordinary
[ASIST 2013 Panel]

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ABSTRACT
Research design is a vital consideration when embarking on any research venture. The careful and judicious selection of method (or combination of methods) and project design are integral to obtaining funding, completing a successful study, and having your research accepted for presentation and publication. This panel adopts a format similar to the Antiques Roadshow to delve into the intricacies, successes and challenges of research design, with interactive audience participation. On the Antiques Roadshow (http://www.pbs.org/wgbh/roadshow/index.html), Mark Walberg serves as the host, while specialists from the country’s leading auction houses and independent dealers from across the nation offer free appraisals of antiques and collectibles. Those antiques and collectibles include family heirlooms, yard sale bargains, and long-lost items salvaged from attics and basements, and the experts reveal fascinating truths about these finds.

Chirag Shah will host “the show.” The research roadshow will begin with each expert (Lynn Silipigni Connaway, Marie L. Radford, and Barbara M. Wildemuth) taking 5-7 minutes to discuss the strengths and weaknesses of the research design for a particular study they conducted. Shah will then present the panelists with a study that he would be interested in conducting, and describing one or more aspects of the research design (his treasure) that he has found to be challenging. The panelists will offer their advice and comment on any additional obstacles he might expect to face in conducting the study. Shah will then invite the audience to join in by presenting ideas for studies they’d like to conduct (i.e., the potential valuables sitting in their intellectual attics); the panelists will respond to and comment on each, appraising the value and prospects (for publication).

Keywords
Research design, Research methods, Transaction analysis, Surveys, Unobtrusive observation, Naturalistic inquiry, Interviewing, Performance measurement, Qualitative methods, Quantitative methods

INTRODUCTION
Research design is a vital consideration when embarking on any research venture. The careful and judicious selection of method (or combination of methods) and project design are integral to obtaining funding, completing a successful study, and having your research accepted for presentation and publication. This panel adopts a format similar to the Antiques Roadshow to delve into the intricacies, successes and challenges of research design, with interactive audience participation. On the Antiques Roadshow (http://www.pbs.org/wgbh/roadshow/index.html), Mark Walberg serves as the host, while specialists from the country’s leading auction houses and independent dealers from across the nation offer free appraisals of antiques and collectibles. Those antiques and collectibles include family heirlooms, yard sale bargains, and long-lost items salvaged from attics and basements, and the experts reveal fascinating truths about these finds.

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It is our intent that the atmosphere will be similar to that created on the Antiques Roadshow – both intellectually stimulating and fun. It also is hoped that audience members will join us to find out how our early research experiences became priceless experiences for us and to discuss some of the truths about their research ideas, and that they will be
encouraged by their participation to conduct some of the studies they bring to discuss.

A User-Centered Online Catalog Study: Utilizing Transaction Log Analysis, User Surveys, and Unobtrusive Observations

Lynn Silipigni Connaway completed this study when she was a junior faculty member and this was her first attempt to study user behaviors. She solicited the help of two senior faculty, neither of whom had much experience in user behavior research design. The three researchers worked together to develop a university online catalog study to determine if the academic community was able to easily use and get needed information from the catalog and why or why not. The research team wanted to design a user-centered online catalog study by integrating transaction log analyses (when the logs were printed on large computer sheets) to identify the patterns of each specific user, a brief user survey, and unobtrusive observation of the subjects interacting with the online catalog. The observations, exact times of the online catalog experience, and the workstation numbers were documented so that all three data collection methods could be linked to the corresponding participant. At the time the research was completed the researchers were quick to identify the challenges of the approach. However, this research design experience has actually become a valuable treasure for future projects! The paper was published in 1995 and the citation is:


A Naturalistic Inquiry of Nonverbal Behaviors using Non-Participant Observation and Structured Interviews

Marie L. Radford had a burning interest in both librarian stereotypes and nonverbal communication which led her to undertake and conduct a solo study of approachability at academic reference desks. The research questions centered around how academic library users made the decision to approach (or not approach) a librarian on duty at a face-to-face traditional reference desk. This interest in nonverbal behavior had been simmering for years as Radford wrote, defended, and revised her dissertation for publication as a book. The dissertation was done, the time was now right, the opportunity was seized, the design ambitious, the researcher eager.

This study was conducted at two different types of academic libraries (one a four-year college, one a research university) and required a naturalistic approach centered in non-participant field observation and interviews, rather than an experimental design. This project was selected because it posed a difficult design challenge, as nonverbal behaviors are ephemeral and transient, it required fast-paced participant consent and interviews plus careful orchestration of scheduling, and the researcher was a novice at this type of research. Perils and pitfalls galore were encountered, as intriguing results and valuable design experience were obtained.

The results were presented at the Library Research Seminar I, Florida State University, Tallahassee, FL, November 1-2, 1996 and were published in Library Trends.


Combining Interviews and Performance Measurement

In 2001-2002, Barbara Wildemuth was a member of a research team investigating issues associated with digital libraries of digital video materials. In particular, the team (led by Gary Marchionini) was interested in the development of non-textual surrogates to represent the videos in the collection. The study to be discussed occurred early in the team’s work and focused on comparisons across multiple surrogates being considered for further development.

This study was selected as an example because it uses mixed methods: an experimental study comparing participants’ performance on the various surrogates, plus a parallel set of in-depth interviews of their impressions of each surrogate. The study participants engaged in a relatively lengthy three-phase protocol: 1) viewing two videos and three surrogates of each, commenting on the surrogates during interactions; 2) viewing only the surrogates for two more videos, again commenting on them; and 3) completing several performance tasks based on the viewing of three more surrogates. While the results were far from conclusive, they did clearly point to some specific directions for surrogate development and they gave us a much more nuanced understanding of the ways in which people define the “gist” of a video.

The results were presented at the European Conference on Digital Libraries in 2002, and were later published as Lecture Notes in Computer Science.


Example Design Challenge Scenario

The following is an example of a design challenge scenario that will be raised by Chirag Shah to prime the audience to bring forth their design challenges.

It is typically expected that when people work together, they can often accomplish goals that are difficult or even...
impossible for individuals. I would call this notion of the group achieving more than the sum of all of the individuals’ achievements to be the synergic effect in collaboration. Similar expectations exist for people working in collaboration for information seeking tasks. We, however, lack a methodology and appropriate evaluation metrics for studying and measuring the synergic effect. And therefore, I do not know how I could extract and investigate synergic effect in collaboration in general, and collaborative information seeking in particular. What methodology or a mix of methodologies would the panelists recommend to help me with this investigation?

ORGANIZERS

Marie L. Radford, Ph.D., is Chair of the Department of Library and Information Science at the Rutgers University School of Communication & Information. Research interests include interpersonal communication in reference services (traditional and virtual), qualitative methods, evaluation, and cultural studies. She is Co-PI of the “Seeking Synchronicity” (with Lynn Silipigni Connaway) and “Cyber Synergy” (with Lynn Silipigni Connaway and Chirag Shah) projects funded by IMLS, Rutgers, and OCLC. She gives frequent keynote speeches and scholarly papers at national and international library and communication conferences and publishes widely in LIS journals. Her latest books include: Leading the Reference Renaissance (2012), Reference Renaissance: Current and Future Trends, co-edited with R.D. Lankes, (2010) and Conducting the Reference Interview, 2nd Ed. (2009) co-authored with C. S. Ross and K. Nilsen. She received the 2010 ALA/RUSA Mudge Award for distinguished contributions to reference service and the 2013 ALISE/Bohdan S. Wynar Research Paper Award (with Lynn Silipigni Connaway).

Lynn Silipigni Connaway, Ph.D., is a Senior Research Scientist at OCLC Research. She has experience in academic, public, and school libraries, as well as library and information science education. Connaway has completed several UK projects in collaboration with JISC to investigate users’ behaviors, including virtual research environments and digital repositories. Lynn currently is collaborating with JISC and the University of Oxford, with the University of North Carolina, Charlotte, to study digital visitors and residents. She also is the co-principal investigator of an IMLS-funded project with Marie Radford and Chirag Shah, to investigate the possibility of seamless collaboration between knowledge institutions such as libraries and the Social Q&A (SQA) community. Lynn is the co-author of the 4th and 5th editions of Basic Research Methods for Librarians, has published numerous papers in refereed journals, and presents her research in both national and international venues.

Chirag Shah, Ph.D., is an assistant professor at the Department of Library & Information Science (LIS) within the School of Communication & Information (SC&I) at Rutgers University. His research interests include studies of interactive information retrieval/seeking, especially in the context of online social networks and collaborations, contextual information mining, and applications of social media services for exploring critical socio-political issues. He is also interested in various theoretical and practical aspects of information as a dynamic construct, and online information propagation. At Rutgers, he runs a research group on Information Seeking and Behavior (http://www.infoseeking.org/) as well as special interest groups on Collaborative Information Seeking and Social Information Seeking. He has published numerous papers in journals and conferences relating to these topics, including a recent book on Collaborative Information Seeking (CIS) published by Springer as a part of Information Retrieval Series.

Barbara M. Wildemuth, Ph.D., is Professor and Associate Dean in the School of Information and Library Science at the University of North Carolina at Chapel Hill. Her recent book, Applications of Social Research Methods to Questions in Information and Library Science, has been adopted as a text in a number of ILS schools in the United States and abroad. Her research focuses on people’s use of information and information technologies, and has involved a wide variety of data collection and analysis methods, ranging from in-depth interviews and observations, to surveys, to longitudinal field studies, to experiments in interactive information retrieval. Her most recent work includes a needs assessment for use of personal health records (an interpretive study involving in-depth interviews and inductive coding), and a more methodological study of the search tasks assigned in interactive information retrieval experiments. Her teaching responsibilities include courses in various aspects of research methods (including theory development), human information interactions, and information ethics.

REFERENCES


