INTRODUCTION

Deplorable compulsion, when something happens to enquire 'What'?
Samuel Beckett *The Unnameable*

A silent paradigm shift has occurred in doctoral education. Preparing the next generation of PhDs to function successfully in and contribute to today’s and tomorrow’s global environment requires an approach that goes beyond conceptualizing an apprenticeship model and institutes communities of practice, which should include recognition of peers as learning partners … Because more is being asked of the next generation of researchers—in addition to the traditional academic research competencies, they now need professional skills as well as cultural competencies—what is required today at the PhD level is the kind of purposeful structuring that allows for transformative doctoral education.


You have chosen an interesting career path. In a sense, you are joining a tradition of inquiry stretching back for at least three thousand years. Over this time, the development of knowledge has been dependent, in no small part, to the incremental advances and sudden revelations of scientific research. Movement in science seems to be in fits and starts and some see the history of science as an example of Eldredge and Gould's "punctuated evolution." 1. What has been common to the pursuit of scientific knowledge? According to Katzer and Crouch 2,

What we need to understand and recognize are the conditions necessary for us to consider something true; what are the characteristics of accurate information?"  

You will spend years asking and attempting to answer (hopefully) interesting and important questions. Why? And how can you best do this? How do you know when a research question is a good one? How will you know when your research has led you to findings that you consider "accurate information"? How will you know when you have made a contribution?

The conduct of research is essential to your future for at least three reasons. First, research is the currency of the academic world. The work we do is important for our peers and for practitioners as you contribute to and expand the accepted knowledge base of ours and cognate fields. Second, you build your career as you explore and advance your research agenda. Third, your immediate success in the field (academic or other settings) is dependent on your research productivity.

This class is an initial step in your journey. The purpose of this class is to introduce you to research in information and library science. There are many fascinating issues to consider:

• What constitutes research in information and library science?
• What are the main domains within which ILS researchers work?
What are the main approaches used by ILS researchers?
What are some important theories and how do we choose among them?
What counts as reasonable evidence in these approaches?
What are the main ideas that have captured the imaginations of ILS researchers over the last two decades?
What is involved in the research process from the formulation of the initial problem or question to the published work?

Over the course of the semester we will explore the research tradition in information and library science, discuss key issues in the conduct of research in this field, examine the range of approaches taken by ILS researchers, critically evaluate key concepts in this field, and discuss research ethics that come into play when studying people.

Sources

COURSE OBJECTIVES
By the end of this course, you will:
• Be familiar with the main domains of research in information and library science, especially those of the ILS faculty
• Know how to compile and write different types of analytic literature reviews
• Understand the main theoretical and methodological approaches used by ILS researchers
• Be able to discuss what counts as reasonable evidence in these approaches
• Have a greater understanding of the main ideas that have captured the imaginations of ILS researchers over the last two decades
• Become a critical consumer of ILS research
• Have a clearer sense of your identity as a researcher in this discipline and experience with professional oral and written communication
• Pass the Protection of Human Research Participants Certification Test.

COURSE REQUIREMENTS
This course is run as a seminar, which means that the success or failure of the class depends, to a great extent, on your participation throughout the semester. The class will not be run in a lecture format after the first class and will thereafter involve discussions and active interchanges among the people in the class. This means that you have a greater responsibility to take control of your own education, both in and outside of class. In class, you should be prepared to discuss the topics that are scheduled for each afternoon. Outside of class, you should make the time to read and think about the readings.

Although the syllabus follows a predetermined schedule, the seminar format provides a degree of flexibility that will allow us to spend more time on those topics that are capturing our interest. The course content can therefore evolve as we begin to explore the conduct of research in ILS.

The course will consist of two components: a weekly three hour seminar meeting on Thursday and a weekly three hour discussion on Friday with individual faculty members and doctoral students. Because the course employs informal seminar and discussion formats, its success depends on the active engagement of all class members. The sessions on Thursday are a three hour seminar meetings during which students will explore the fundamental research domains of information science, discuss readings in major areas of IS research, and work on academic writing skills (e.g., abstracts, annotations and the literature review).
sessions on Friday are a three hour discussions with individual faculty members and doctoral students during which you will discuss the faculty members’ and doctoral students’ research and how their work relates to the broader research objectives of information and library science. Because the course employs informal seminar and discussion formats, its success depends on the active engagement of all class members. Faculty members and doctoral students will select the readings for their sessions.

**Other requirements**

To receive a passing grade in this course, you must turn in all of the assignments and the term project and do your presentations. You cannot pass this course without doing all of the assigned work, however, turning in all of the work is not a guarantee that you will pass the course. Grades of <I> (Incomplete) may be assigned in this course after discussion with the instructors, but, depending on the circumstances, there will be a penalty applied at the discretion of the instructors.

All papers and assignments must be submitted on the dates specified in this syllabus. If you cannot submit an assignment or cannot deliver a presentation on the date it is due, it is your responsibility to discuss your situation with the instructors, preferably in advance. Given that your reasons or problems are legitimate, arrangements for the completion of the outstanding work can be made; this will occur, however, at the discretion of the instructors. There will be a penalty for work turned in after the assigned date, and this will also be applied at the discretion of the instructors.

Your written and oral work will be evaluated according to four criteria; it must:

- Be clearly written or presented;
- Demonstrate a degree of insight into the concepts, issues, and trends in both the areas you investigate in the assignments and in the course content;
- Demonstrate a degree of originality in your assignments and the term project; and
- Display some familiarity with the appropriate current and/or classic literatures.

Borderline grades will be decided (up or down) on the basis of class contributions and participation throughout the semester.

**Academic dishonesty**

There is extensive documentation and discussion of the issue of academic dishonesty in the Indiana University "Code of Student Rights, Responsibilities and Conduct;" this is available at http://www.indiana.edu/~code/. Of particular relevance is the section on plagiarism:

3. Plagiarism

Plagiarism is defined as presenting someone else's work, including the work of other students, as one's own. Any ideas or materials taken from another source for either written or oral use must be fully acknowledged, unless the information is common knowledge. What is considered "common knowledge" may differ from course to course.

a. A student must not adopt or reproduce ideas, opinions, theories, formulas, graphics, or pictures of another person without acknowledgment.
b. A student must give credit to the originality of others and acknowledge indebtedness whenever:

1. Directly quoting another person's actual words, whether oral or written;
2. Using another person's ideas, opinions, or theories;
3. Paraphrasing the words, ideas, opinions, or theories of others, whether oral or written;
4. Borrowing facts, statistics, or illustrative material; or
5. Offering materials assembled or collected by others in the form of projects or collections without acknowledgment.
From: Part II: Student Responsibilities - G. Uphold and maintain academic and professional honesty and integrity - 3. Plagiarism

http://www.indiana.edu/~code/code/responsibilities/academic/index.shtml

Plagiarism is the use of someone else's ideas, words, or opinions without attribution. Any assignment that contains plagiarized material or indicates any other form of academic dishonesty will receive a grade of "F". A second instance will result in an automatic grade of “F” for the course. Penalties may be harsher depending upon the severity of the offense. See Indiana University's “Code of Student Rights, Responsibilities and Conduct” (link above).

There is more to avoiding plagiarism than simply citing a reference. To aid students both in recognizing plagiarism and in avoiding the appearance of plagiarism, Indiana University's Writing Tutorial Services has prepared a short guide entitled Plagiarism: What it is and how to recognize and avoid it. For example, here are some strategies for avoiding plagiarism:

1. Put in quotations everything that comes directly from the text especially when taking notes.
2. Paraphrase, but be sure you are not just rearranging or replacing a few words. Instead, read over what you want to paraphrase carefully; cover up the text with your hand, or close the text so you can't see any of it (and so aren't tempted to use the text as a "guide"). Write out the idea in your own words without peeking.
3. Check your paraphrase against the original text to be sure you have not accidentally used the same phrases or words, and that the information is accurate.

From: http://www.indiana.edu/~wts/pamphlets/plagiarism.shtml

This guide is available here: http://www.indiana.edu/~wts/pamphlets/plagiarism.shtml. It provides explicit examples of plagiarism and offers strategies for avoiding it. Each student should be familiar with this document and use it as a guide when completing assignments. In fact, there are many pamphlets at Writing Tutorial Services that you might find useful as you begin your graduate work. They are listed here:


Indiana University and School of Library and Information Science policies on academic dishonesty will be followed. Students found to be engaging in plagiarism, cheating, and other types of dishonesty will receive an F for the assignment and additional penalties applied at the discretion of the instructors. As a rule of thumb, when in doubt, cite the source!

**Grades in the Department of Information and Library Science**

The following definitions of letter grades have been defined by student and faculty members of the Committee on Improvement of Instruction and have been approved by the faculty (November 11, 1996) as an aid in evaluation of academic performance and to assist students by giving them an understanding of the grading standards of the Department of Information and Library Science:

<table>
<thead>
<tr>
<th>Grade</th>
<th>GPA</th>
<th><strong>Meaning</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.0</td>
<td><strong>Outstanding achievement.</strong> Student performance demonstrates full command of the course materials and evinces a high level of originality and/or creativity that far surpasses course expectations</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
<td><strong>Excellent achievement.</strong> Student performance demonstrates thorough knowledge of the course materials and exceeds course expectations by completing all requirements in a superior manner</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
<td><strong>Very good work.</strong> Student performance demonstrates above-average comprehension of the course materials and exceeds course expectations on all tasks as defined in the course syllabus</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
<td><strong>Good work.</strong> Student performance meets designated course expectations, demonstrates</td>
</tr>
</tbody>
</table>
understanding of the course materials and is at an acceptable level

<table>
<thead>
<tr>
<th>Grade</th>
<th>GPA</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-</td>
<td>2.7</td>
<td>Marginal work. Student performance demonstrates incomplete understanding of course materials.</td>
</tr>
<tr>
<td>C+</td>
<td>2.3</td>
<td>Unsatisfactory work. Student performance demonstrates incomplete and inadequate understanding of course materials.</td>
</tr>
<tr>
<td>C</td>
<td>2.0</td>
<td>Unsatisfactory work. Student performance demonstrates incomplete and inadequate understanding of course materials.</td>
</tr>
<tr>
<td>C-</td>
<td>1.7</td>
<td>Unsatisfactory work. Coursework performed at this level will not count toward the MLS or MIS degree. For the course to count towards the degree, the student must repeat the course with a passing grade.</td>
</tr>
<tr>
<td>D+</td>
<td>1.3</td>
<td>Unsatisfactory work. Student performance demonstrates incomplete and inadequate understanding of course materials.</td>
</tr>
<tr>
<td>D</td>
<td>1.0</td>
<td>Unsatisfactory work. Student performance demonstrates incomplete and inadequate understanding of course materials.</td>
</tr>
<tr>
<td>D-</td>
<td>0.7</td>
<td>Unsatisfactory work. Student performance demonstrates incomplete and inadequate understanding of course materials.</td>
</tr>
<tr>
<td>F</td>
<td>0.0</td>
<td>Failing. Student may continue in program only with permission of the Dean.</td>
</tr>
</tbody>
</table>

OTHER IMPORTANT INFORMATION

There are three ways you can get in touch with us outside of class:

1. Fichman’s office is Room 007 in the Department of Information and Library Science, Bloomington campus. She can meet with you by appointment.

Rosenbaum’s office is 005C in the Department of Information and Library Science. His office hours are Monday, 1:00-2:30. He can also meet with you by appointment if these hours are not convenient.

2. Fichman’s office phone number is 812-856-1587. Rosenbaum’s office phone number is 812-855-3250.

We have voice mail, so you can always leave us a message.

3. Fichman’s email address is <fichman@indiana.edu>. Rosenbaum’s email address is <hrosenba@indiana.edu>. Please use Z701 in the subject line of your email if you wish to contact us about class.

ASSIGNMENTS

You will have seven assignments in this class. These assignments are described below, and will be discussed in greater detail in class. They include:

1. Research statements (2)
2. Literature review (in three parts, each due every four weeks or so)
   a. Annotated bibliography (30 articles, each with an annotations)
   b. Draft of literature review (50 articles)
   c. Presentation of literature review and submission of final draft
3. Paper reviews (2)
4. Leading the class (2)
5. Friday reflective essays
6. Class participation
   a. Attendance at ILS colloquia
   b. Attendance at relevant CNS/RKCSI/DL brownbag talks
7. Human Research Certification Test

1. Research statements

Research Statement #1

Write a research statement outlining your interests in a domain within library and information science.

Use the following questions to guide your thinking:

* What kinds of research problems, questions, and/or issues are currently intriguing you?
• Why are these of interest to you?
• Why are these important to our field?
• What types of research methods would you like to use to investigate them?
• How do you see this line of research developing over time?

These questions are intended to spur your thinking. You may focus on a single problem, question, or issue, if there is one with which you are particularly engaged.

You will write this statement before you come to the first class. You will bring it to the first class and present it.

This essay should be no more than ~1000 words. As with all assignments, the choice of format is yours so long as it is electronic. No paper. Submit the assignment to the course Canvas site. This assignment is due on August 27 and is worth 5% of the final grade.

Research Statement #2

Rewrite your research statement based on what we have discussed in class this fall. In addition to the original questions that you used to write your first statement, you should now consider:

• The type of theoretical approach you think is appropriate for your work
• Your understanding of the underlying assumptions and world view that inform your approach
• The key concepts that you will use in your work
• The strengths and weaknesses of the methodological approaches you intend to use
• A statement of the ethical issues that seem relevant in the type of work you intend to do and how you intend to handle them

You will write a statement of ~2000 words. This statement will be due on December 3. This version of the research statement is worth 15% of the final grade.

2. Literature review

Over the course of the semester you will review a set of peer reviewed articles in a domain of interest to you, hopefully a domain within which you will conduct your doctoral research. You will do this work in three stages leading to the submission and presentation of an analytic literature review. As will be discussed in class, the literature review is important both to the field and to your success in ILS as a doctoral student because your qualifying example is based on an extended analytic literature review that, if you plan carefully, can become the literature review of your dissertation proposal and your dissertation.

According to Zorn (2006), …literature reviews are … important for scholarly research…. They can be a source of ideas, research questions, and hunches to explore. That is, through finding exemplars of well-executed research, interesting ideas that are not particularly well executed, or gaps in the body of knowledge in a discipline, we can identify possibilities for future research. Literature reviews also help scholars avoid “reinventing the wheel” by enabling them to build on what others have done. Finally, literature reviews help researchers develop an argument for their study by demonstrating that they are extending existing knowledge—building on what is already out there and filling gaps that exist. Thus, if students are to write research reports effectively in their university studies, they must master the writing of literature reviews.

The first step will be an annotated bibliography

Based on the research domain you described in your research statement, you will develop an annotated bibliography of ~30 relevant peer reviewed articles. This will include a list of citations to books, articles, and documents that have something to do with your research domain. For each citation, you will write a brief (~150 words) descriptive and evaluative paragraph describing the work; this is the annotation, the
purpose of which is to inform the reader of the relevance, accuracy, and quality of the sources cited. Your annotations will be descriptive and critical and should summarize the main points or ideas found in the work. It should also include your own evaluation of the quality of the work, relating it to your own research topic.

You should clear your topic with the instructors by September 17. Schedule a meeting with us no later than September 28 to have this discussion.

The annotated bibliography will be submitted to the course Canvas site and is due on October 2. This assignment is worth 5% of the final grade.

The second step will be a draft of a literature review.

Based on the research question or problem that you discussed in your research statement, review relevant research literature and write a detailed draft of your critical literature review where you

- identify the main theoretical and conceptual frameworks used by researchers in their studies
- identify the main methodological approaches used by these researchers
- summarize the main findings of the research
- develop a critical framework of your own (based on the readings) and use it to structure the outline

Your draft should be ~3000 words and will include the articles from your annotated bibliography along with additional articles that you have found since submitting your bibliography. You can include relevant readings from the class reading list and should have ~50 articles in the draft. The draft is due on November 13 and is worth 5% of the final grade.

The third step is the submission and presentation of the final draft of your literature review.

The final version of the literature review is due on December 3. On December 11, you will present your literature review in class. You should frame your presentation of the review by discussing it within the context of your research statement. This presentation will be a total of 15 minutes in length, with 10 minutes for your talk and 5 minutes for questions. This will resemble a conference presentation and you should treat it as such. This means that you should have a 15 minute presentation using Powerpoint or your favorite presentation software. You will submit your presentation materials to us after you have presented your work. The final draft and your presentation are worth 15% of the final grade.

3. Peer reviewing of papers

Paper Review #1

Find, read, and review one scholarly article of interest to you. For this assignment, assume that you are a reviewer for the Journal of Organizations, Knowledge, and Experimentation. Your task is to determine whether the article is appropriate for publication in the journal. You will use a reviewer's form that you can find on the course Canvas site.

In your review, you will be using the following criteria to evaluate the strengths and weaknesses of the article:

- Popularity of the subject
- Appropriateness for journal
- Adequacy of literature review
- Quality of research design
- Adequacy of data/data analysis
- Theoretical/methodological contributions to the literature
- Legitimacy and significance of the conclusions
- Practical significance
• Persuasiveness of the argument
• Clarity of presentation

You will write comments to the author explaining what the author can do to improve the work. You will also write comments to the editor where you give reasons for your evaluations and specific criticisms. Be sure to discuss the reasons for the scores you have given above. This portion of the rating form is for journal editors only.

You will send us the full citation and a brief abstract of your article by **September 11**. We will respond with a confirmation or further questions by September 18. Once you have received confirmation from us, you may begin reviewing the article.

This document should be no more than ~1,000 words. This assignment is due **October 8** and is worth 5% of the final grade.

On **October 8**, be prepared to discuss your evaluation in class.

**Paper Review #2**

Find, read and review a second article for the Journal of Organizations, Knowledge, and Experimentation. For this assignment, the article must use a different method than did the first article you reviewed. In broad terms, if the first article used a qualitative methodological strategy, this article must use a quantitative research design for data collection and analysis. Ideally, this article will study the same general domain as the first article.

Again, your task is to determine whether the article is appropriate for publication in the journal. You will use a reviewer's form that you can find on the course Canvas site.

You will use the same criteria and will write comments to the author explaining what he or she can do to improve the work. You will also write comments to the editor where you give reasons for your evaluations and specific criticisms. Be sure to discuss the reasons for the scores you have given for the criteria.

You will send us the full citation and a brief abstract of your article by **October 8**. We will respond with a confirmation or further questions by October 15. Once you have received confirmation from us, you may begin reviewing the article.

This document should be no more than ~1,000 words. This assignment is due **November 6** and is worth 5% of the final grade.

**4. Lead the Class**

You will select a topic from the syllabus in which you have interest for a class being led by the instructors. When this topic is covered in class, you will have the lead role in preparing and leading the discussion.

For the class that you will lead, you will provide us with at least two print or web-based academic, peer-reviewed readings that you want the class to read in advance of the discussion. You may draw from the recommended readings for that class. No later than three days before you are scheduled to lead the discussion, you will provide us with digital copies or URLs of the readings; we will quickly approve them (or ask you to find different readings). Also, to seed the discussion, you will prepare four general discussion questions that and post them to the class discussion forum on Canvas along with the URLs for the readings (or the digital copies) no later than three days in advance of the class discussion you lead.

When you lead the discussion, you should be prepared to talk about the topic and the readings, raising the questions that will serve as the basis for our discussion. You will prepare notes, an outline, and any supporting materials (such as overheads, or, for the brave, a live demonstration).
After the class, you will submit your written materials that will be returned to you shortly after we examine them.

You complete this assignment by providing us with readings, preparing the discussion questions and posting them on the class list, showing up in class, leading the discussion, and turning in your materials.

You will sign up for topics on **September 10**. There will be presentations in class between the weeks of **September 17** and **December 3**.

This assignment is worth **10%** of the final grade.

**5. Be the host for a Friday morning sessions.**

Over the course of the semester, each student will be required to host one weekly seminar meetings and one guest faculty discussions. During the first class meeting, students will select two meeting dates for which he/she will be responsible, one for leading class discussion and one for hosting a Friday session. All students will be expected to assist the week's host:

1) By preparing an informative abstract of one required reading assigned for class meetings on Thursdays. The abstract will cover the major ideas, arguments, methods and findings discussed in the article. Abstracts of required readings are to be shared with other class members and must be posted to the Canvas site at least two days before the class meets.

2) By generating three or more questions that focus attention on the most significant or controversial ideas addressed in the assigned readings for the session. The questions are to be posted to the Canvas site at least 24 hours before class to allow that week's host time to identify the most interesting, profound or controversial questions for class discussion.

When hosting a guest faculty member, the student will be responsible for coordinating the discussion with the faculty member. This will include compiling student questions and providing them to the faculty member two days before the scheduled session as well as arranging for any technology or other materials the faculty member may require. The student will also be responsible for introducing the faculty member and for facilitating discussion.

You will sign up for sessions on **September 10**. This assignment is worth **10%** of the final grade.

All students will be responsible for generating three or more questions that focus attention on the most significant or controversial ideas addressed in the assigned readings for the Friday session. The questions will be posted to the Canvas site at least 24 hours before the meeting with faculty to allow that week's host time to identify the most interesting, profound or controversial questions for discussion in class. These questions will also be provided to the week's guest faculty member.

**6. Friday Reflective Essays**

Following the Friday meeting with a guest faculty member, each student will prepare a reflective essay of ~1000 words that addresses the major theories, methods and/or problems of the faculty member's research area that the student finds most important or interesting. Reflective essays will be posted to the Canvas site and a hard copy of the essay will be submitted to the guest faculty member by the following Wednesday. Each guest faculty member will review these essays and assign grades. The student's grade for reflective essays, which constitutes 30% of the final course grade, will be computed as an average of grades assigned by guest faculty members.

**7. Class participation**
ILS Research Colloquia

Each student in S701 will be expected to attend ILS Research Colloquia whenever they are convened.

Other venues for talks across campus

Students will be expected to attend relevant talks offered by the Center for Network Science, the Rob Kling Center for Social informatics, the Digital Library program, and other Centers and departments across campus.

8. Protection of Human Research Participants Certification Test

Each student must submit documentation demonstrating that he/she has successfully passed the Protection of Human Research Participants Certification Test. This test is available at

http://researchcompliance.iu.edu eo/eo_citi.html

The Office of Research Compliance at Indiana University Bloomington provides two web-based tutorials that meet Federal requirements for human subjects research: one for biomedical research and one for non-biomedical research. Both tutorials are available at

http://researchcompliance.iu.edu eo/eo_citi.html

Because of the broad coverage of the human research certification test, students should plan to review both tutorials before attempting the test.

GRADING AND DUE DATES

This table shows the assignments you have to do and the percentage of the final grade each is worth.

<table>
<thead>
<tr>
<th>Assignment</th>
<th>% of Final Grade</th>
<th>Date due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final research statement</td>
<td>15%</td>
<td>December 3</td>
</tr>
<tr>
<td>Draft research statement</td>
<td>5%</td>
<td>August 27</td>
</tr>
<tr>
<td>Literature review</td>
<td></td>
<td>December 3</td>
</tr>
<tr>
<td>Annotated bibliography</td>
<td>5%</td>
<td>October 2</td>
</tr>
<tr>
<td>Clear topic with instructors</td>
<td></td>
<td>September 17</td>
</tr>
<tr>
<td>Draft of the literature review</td>
<td>5%</td>
<td>November 13</td>
</tr>
<tr>
<td>Presentation/submission of the literature review</td>
<td>15%</td>
<td>December 11</td>
</tr>
<tr>
<td>Paper review #1</td>
<td>5%</td>
<td>October 8</td>
</tr>
<tr>
<td>Send abstract of article</td>
<td></td>
<td>September 11</td>
</tr>
<tr>
<td>Paper review #2</td>
<td>5%</td>
<td>November 6</td>
</tr>
<tr>
<td>Send abstract of article</td>
<td></td>
<td>October 8</td>
</tr>
<tr>
<td>Leading the class #1</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Leading the class #2</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Sign up for leading the class</td>
<td></td>
<td>September 10</td>
</tr>
<tr>
<td>Friday reflective essays</td>
<td>30%</td>
<td></td>
</tr>
<tr>
<td>Sign up to host Friday session</td>
<td></td>
<td>September 10</td>
</tr>
<tr>
<td>Class participation</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Participation in Ph.D. Professional Forum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attendance at weekly Research Brown Bags</td>
<td></td>
<td></td>
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<tr>
<td>Human Research Certification Test</td>
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</tbody>
</table>

Note that there is a portion of the overall grade that has been allocated for class participation. Participation will be determined in three main ways. One will involve a demonstration of your effort and interest in
class. Since this class is a seminar, participation in this sense is defined primarily as contributing to class discussion. A second involves other ways to demonstrate that you are engaged in the class, such as coming by during office hours to discuss your work or ask questions. The final way is through your attendance of talks and colloquia throughout the semester.

REQUIRED TEXTS

There are no required texts for this course. Readings are available through Library databases or on the web.

TOPIC OUTLINE, READING SCHEDULE AND ASSIGNMENT DUE DATES

NOTE: The URLs for the readings were last checked on August 31, 2015

August 27: Getting Started: Doctoral research in Information Science

Readings

http://informationr.net/ir/12-4/colis/colis03.html

http://epubs.surrey.ac.uk/484/1/fulltext.pdf


Torgovnick May, K. (2012). How to give more persuasive presentations: A Q&A with Nancy Duarte. TEDBlog

Assignments

Discuss assignments
Research statement due
Sign up for hosting two Friday sessions
Sign up for leading Thursday class

August 28

Ice Cream Social for PhD Students and faculty @ 11AM-12PM

September 3: Writing annotations and abstracts
Guest speaker: Dr. Elin Jacob

Readings

Readings listed in the order in which they are to be read


Tibbo, H. R. (1992). Abstracting across the disciplines: a content analysis of abstracts from the natural sciences, the social sciences, and the humanities with implications for abstracting standards and online information retrieval. Library & Information Science Research, 14. 31-56.


**September 4: Documentation in the 21st Century**
**Guest speaker: Dr. Ron Day**

**Readings**


Briet, Suzanne (1951). What is Documentation? (part 1)
   http://ella.slis.indiana.edu/~roday/briet.htm

   http://people.ischool.berkeley.edu/~buckland/whatdoc.html

   http://people.ischool.berkeley.edu/~buckland/thing.html


English translation (without photographs): https://itp.nyu.edu/classes/germline-
spring2013/files/2013/01/Bataille-Visions-of-Excess-The-Pineal-Eye-4-Leiden.pdf

(Original French (with photographs): http://gallica.bnf.fr/ark:/12148/bpt6k32951f.image.swf


http://culturemachine.net/index.php/cm/issue/view/24

**September 10: Research Ethics**  
**Guest speaker: Dr. Alice Robbin**

There is a very large body of literature developed over a number of decades, including journals devoted to the subject of (information) ethics. This session extracts the essentials of what you need to know in order to prepare your future research projects, focusing on several historical and recent case studies that introduce the core issues of research activities and the responsibilities of an ethical researcher at Indiana University.

**Readings**

NOTE: You will need to use your IU network id in order to access/retrieve some of the journal articles and documents cited below that are in “closed” IU Wells Libraries databases, even when a url is provided. Articles and documents in Part 1 have been scanned and are available at your course work site in Canvas, IU’s learning management system.

Please read the documents in the order in which they are cited. Documents are organized in Canvas with a name that includes a prefix of Part #-Section #-First Three Letters of Type of Case Study-Author Name_.

**PART 1. CASE STUDIES AND ANALYSIS**

1) **Historical Case Studies**

(The two chapters have been scanned and are available in Canvas and a personal copy of the book (for several chapters in the Recommended Readings of this session is also on reserve in Wells Library down the hall from ILS.)

   Chapter 1. Introduction [to the problematics of ethical behavior].
   
   This chapter also introduces the major historical case studies that subsequently led to the development of ethical behavior requirements in federal and state laws, policy, and regulations and governance documents of many professional scientific societies. These examples demonstrate that issues related to ethical decision making occur during the entire research process from design through methodology, data collection, and reporting. We should also include preservation, which is somewhat addressed by the documents issued by IU on security-related concerns and decisions that need to be made by researchers that are discussed in Part 2 of the readings.)

   Chapter 2. An Overview of Ethical Problems in Social Research

2) **Facebook:**

Kramer, A. D. I., Suilloory, J. E., & Hancock, J. T. (2014, June 17). Experimental evidence of massive-scale emotional contagion through social networks. *Proceedings of the National Academy of Sciences of the United States of America (PNAS)*, 111(24), 8788-8790. Retrieved from http://www.pnas.org/content/111/24/8788.full  (You can also retrieve PNAS from IU Wells Library: it is located in the Ebsco Academic Source Premier, but it is also available in Canvas for this session.)


3) **Target:**


4) **Changing Minds on Same Sex Marriage:**


After you read the paper, go to:


Focus on the postings by other scientists because it helps understand how scientists think about the problem of ethics, why co-author Green requested that *Science* retract the paper, and what led to its subsequent retraction.


**PART 2. UNDERSTANDING YOUR RESPONSIBILITIES AS AN ETHICAL RESEARCHER**

**GET TO KNOW THIS WEB SITE:** Please read * items in preparation of our meeting. (Other documents can be read before you prepare your proposed research paper and you take the Human Subjects CITI exam.)
• New Principal Investigator: Human Subjects / IRB
  http://researchcompliance.iu.edu/newpi/newpi_hso.html

• Policies: Research with Human Subjects
  http://policies.iu.edu/policies/categories/research/IU-Research-Policies/Research_with_Human_Subjects.shtml

  - IU IRB Policies: To read in preparation of the CITI test and preparation for future research projects.
  - * Federal Regulations: Read the two major documents that set out the reasoning and rules. You will need to know their contents because the Human Subjects CITI exam asks questions that originate in these documents.
  - * Guidance: There are many documents; however, please read these before we meet.

* Informed Consent
  http://researchcompliance.iu.edu/hso/hs_informed.html

* Data Safety Monitoring:
  http://researchcompliance.iu.edu/hso/hs_data_safety.html

* Research Involving Deception or Incomplete Disclosure
  http://researchcompliance.iu.edu/hso/hs_deception_incomplete.html

* Research using Online Tools and Mobile Devices:
  http://researchcompliance.iu.edu/hso/hs_online_mobile.html

• Area of Research: Biomedical or Social/Behavioral/Educational: See:
  Social/Behavioral/Educational: http://researchcompliance.iu.edu/hso/hs_area_of_research.html

• * Protecting Data: Use of Survey Software (Data Handling, Online Survey Best Practices, Guiding Policies, Additional Resources):
  https://protect.iu.edu/cybersecurity/data/surveys

RECOMMENDED


September 11: Knowledge management
Guest speaker: Dr. Noriko Hara


**Assignments**

Send abstract of article for review #1 to instructors – receive confirmation by September 18

**September 17: What have you gotten yourself into? A history of information science**

**Readings**


http://www.gseis.ucla.edu/faculty/bates/substrate.html

http://jis.sagepub.com/content/34/4/415.abstract


**Recommended readings**


http://people.lis.illinois.edu/~wrayward/HistandHistoriogIS.pdf

http://people.ischool.berkeley.edu/~buckland/histis98.pdf

http://www.capurro.de/tampere91.htm


http://www.jstor.org/stable/4309617


http://www.libsci.sc.edu/bob/istchron/Isbiblio5.pdf

Assignments

Clear topic for annotated bibliography with instructors by September 17

**September 18 : Visualizing science**  
**Guest speaker: Dr. Katy Borner (11:00-12:15am)**

Please register and check out the Information Visualization MOOC  
http://ivmooc.cns.iu.edu

Review Part 2 of the Atlas of Knowledge -- available as part of the MOOC materials.

**September 24: The research process: The literature review**

Readings:

http://aisel.aisnet.org/cais/vol34/iss1/12


Examples

http://dx.doi.org/10.1108/00220411311300066


Recommended readings


http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2647067/


Kucan, L. (2011). Approximating the practice of writing the dissertation literature review. Literacy Research and Instruction, 50(3), 229-240

http://nsuworks.nova.edu/tqr/vol17/iss28/2

http://haris.tech.officelive.com/Documents/How%20to%20conduct%20Literature%20review.PDF


**September 25:** The science of Science  
*Guest speaker: Dr. Stasa Milojevic (11:00-12:00 PM)*

**Readings**

**October 1: Research: Theory and information science**

**Readings**


http://dx.doi.org/10.1108/JD-10-2012-0129


**Recommended readings**

http://aisel.aisnet.org/cais/vol7/iss1/6/


http://informationr.net/ir/15-4/colis717.html

http://aisel.aisnet.org/cgi/viewcontent.cgi?article=3317&context=cais

October 2: Digital Curation and digital preservation
Guest Speaker: Dr. Devan Donaldson


Assignments
Annotated bibliography due

October 8: Quantitative thinking: Basic assumptions, methods

Readings


Highthouse, S. (2009). Designing experiments that generalize. Organizational Research Methods, 12(3) 554-566
http://orm.sagepub.com/content/12/3/554


http://pos.sagepub.com/content/37/3/289.abstract


Recommended


http://aisel.aisnet.org/cais/vol16/iss1/45/


Mason, K. (nd). Quantitative Research.
http://www.personal.psu.edu/users/c/m/cmrr226/knowledge%20base/Quant_%20Research.htm


Assignment

Send abstract of article for review #2 to instructors – receive confirmation by October 15
Critical review #1 due

October 9: FALL BREAK

October 15: Research: Qualitative thinking: Basic assumptions, methods

Readings


Joniak, L. (nd) The qualitative paradigm: An overview of some basic concepts, assumptions, and theories of qualitative research


http://www.annualreviews.org/doi/pdf/10.1146/annurev.soc.27.1.387


**Recommended**

http://www.cis.gsu.edu/~rbaskerv/CAIS_2_19/CAIS_2_19.html


http://www.slis.indiana.edu/hrosenba/l701/pdf/harper_org-ethno.pdf


**October 16:**
**Guest speaker Dr. Katie Shilton (9:30-10:30am)**

**TBA**

**October 22:** Digital Humanities **[Note that this is a Thursday session]**
**Guest speaker: Dr. John Walsh**

**TBA**
October 23: Research: Mixed methods, critique, and information science [Note that this is a Friday session]

Readings


Recommended readings


   http://www.newyorker.com/reporting/2010/12/13/101213fa_fact_lehrer?currentPage=1


October 29: Key domains in information science: Information retrieval and relevance
Guest speaker Dr. Xiaozhong Liu
Readings


   http://inform.nu/Articles/Vol3/indexv3n2.htm


Recommended


October 30: Wikischolar and search
Guest Speaker Dr. Xiaozhong Liu

TBA

November 5: Key domains in information science: representation and classification
Guest speaker: Dr. Elin Jacob

Readings

Key domains in information science: Representation and classification
Readings listed in the order in which they are to be read:


Recommended reading


November 6: Representation and the Semantic Web
Guest speaker: Dr. Elin Jacob

TBA

Assignments

Critical review #2 due

November 12: Key domains in information science: scholarly communication and bibliometrics
Guest speaker: Dr. Stasa Milojevic

Readings


**Recommended readings:**


http://jama.ama-assn.org/content/295/1/90.full.pdf+html


**November 13: Key domains in information science: Information seeking and use**

**Readings**

http://jis.sagepub.com/content/37/4/360.abstract


http://dx.doi.org/10.1108/00220411211225575


http://dx.doi.org/10.1108/00220411311300039


**Recommended**


**Assignments**

Draft of literature review due
November 19: Key domains in information science: information, technology and society [Hara]

Readings


Recommended


November 20: Community and technology

Guest speaker: Dr. Patrick Shih


**November 26 and 27: Thanksgiving**

**December 3: The research problem and the research question**

**Readings**


**Recommended**


Assignments

Literature review due
Second research statement due

**December 4: Establishing a scholarly career: research, teaching and service**

**Readings**

Agre, P. (2001). How to be a leader in your field: A guide for students in professional schools


   [http://www.springerlink.com.ezproxy.lib.indiana.edu/content/h6nq420h84t12216/](http://www.springerlink.com.ezproxy.lib.indiana.edu/content/h6nq420h84t12216/)

   [http://aisel.aisnet.org/cais/vol26/iss1/15](http://aisel.aisnet.org/cais/vol26/iss1/15)


**Recommended**

Austin, A.E. (2002). Preparing the next generation of faculty: Graduate school as socialization to the academic career. The Journal of Higher Education, 73(1), 94-122


December 10: Presentations

Assignments

Presentation and final draft of literature review

December 11: Presentations

Assignments

Presentation and final draft of literature review