Class Teaching Notes INLS 700 Scholarly Communications

#1: History, Introduction

Introduce yourself, and let class introduce themselves. Ask about their experience and interests, and get their input to help plan material you'll cover in class. **(15 mins)**

Course logisitics

Go over webpages. **10 mins**

Go over A0, and be sure they have done everything, and have them practice adding to class work wiki and readings page. **10 mins**

Cover HISTORY slideset. Have discussion with them. **15 mins**

Talk about how technology and the digital representation of information has changed everything. Ask them to give examples. Share some of your research work. (ETDs, OERs, scholarly papers, searching for scholarly information). Brainstorm with them about how things have changed (openness of information, easy access for many (but not all), ability to talk directly with experts, anyone can publish, collective vs individual authoring) **15 mins**

Cover A1, and expectations. **5 mins**

Discuss possibilities for final project: Scholarly Communications Officer job interview, or presentation on issue you study in depth.

#2: Scholarly Publishing

What is scholarship and scholarly communications? Let's understand in more detail the creation through publication and sharing process. Walk through the processing of creation and sharing. Draw on board and fill in all the parts.

- Idea
- Literature Review
- Sharing idea informally, bouncing ideas off colleagues
- Formulation of Problem
- Study Design
- Do pilot program
- Get research grant
- Hire students to help
- Conduct study/experiment
- Do analysis of results
- Write up results
- Informal communication
- Present at conference get feedback.
- Formal communication: journal publication
    - figure out where to submit work(s): conference and journal
    - Submit to journal
    - Get reviewed
    - Make revisions
    - Get published
- Responses from others to your informal or formal communications (they request material, perhaps engage you in discussions), get comments on your article (online?)
- Get ideas for future work, conduct new work
- Use your results to conduct further work, get grants, work with colleagues, advance your career (tenure and promotion).

Publication Process in Detail

- Choice of journal (reviewers)
- Submit
- Editor decides topical or not; good enough or not
- Manuscript assigned to 2-3 reviewers.

- Decision on accept or not; what revisions are required
- Final manuscript submitted
- Copyproofing, typesetting by publisher
- Goes online, then print version
- (marketing)
- Metadata exposed by publisher so searchable
- Archived ("permanently") by publisher
- Access is then fee-based for free (open access).

REVIEW READINGS and RESPONSES

Barjak2006

Useful for two things

- Example of experimental study
- And nice background on Informal vs formal communication

Formal communication is impersonal and takes place in scientific journals, books, and to some extent, at conferences. The journal article is expected to be a robust and reliable piece of information

Informal communication takes place through discussions with close co-workers, talks and reports to small colloquia, working papers, and presentations at conferences. At each stage of this process, the audience increases. Depending on the phase of research, it helps to identify suitable topics, focus the research approach, refine the findings, and put them into the context of other current research. Two different groups of researchers that communicate informally have been distinguished (Crane, 1972; Hagstrom, 1965; Price&Beaver, 1965). The first is the team of researchers and collaborators that jointly work on a project; the second is the invisible college, i.e., the "power group of everybody who is really somebody in a field" (Price & Beaver, 1965, p. 1011). It serves as a channel for the dissemination of research ideas and research results, which it has evaluated positively. It also represents a regulator that matches the volume of information with the absorptive capacities of the researchers (Cronin, 1982).

What is interesting about electronic tools is that they empower both, but perhaps informal more? Formal (article) is more easily and quickly available. But all the informal modes happen more easily and quickly, and allow you to reach out directly to authors and their thoughts (blogs, twiter).

Fjallbrant:

Aspects of academic writing

• ownership of an idea
• societal recognition for the author
• claiming priority for a discovery
• establishing an accredited (sometimes professional) community of authors and Readers this is important interesting to look at how the artefacts (authors, journals, articles, conferences) play a role in this.

I would label as
Personal Image: prestige, self importance of your discovery
Self/Group advancement:
Ownership (if they have commercial value, helps you, or university/company)
Academic reputation (based on academic importance)
Personal satisfaction of public good (spreading scientific knowledge)

Review A1s.

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#3 Serials Crisis

Impact: My story of using my article for my class.

Collision of these two major factors in time (serials crisis and technology change) have made for interesting times. Let's examine these in more detail

Serials Crisis. Walkthrough of licensing rights, Copyright, creative commons, public good. Crack addiction of professional societies.

Panitch Reading for background on Serials Crisis.
Great discussion on serials crisis, from perspective of libraries.
Review charts on pricing changes.
Alternatives to standard commercial publishing for academic materials:

- open access publishing
- institutional or consortium publishing (SPARC, High Wire, OJS, Wordpress),
- refusing to purchase large commercial packages

Left out is discussion of how digital representation of content plays into this.

Talk about convocation in 2005

Urs Reading:
Good coverage of background of scholarly communications, effect of digital representation, and copyright and why standard commercial treatment of copyright protections aren't appropriate for academic publishing.

Section 2: on background of copyright
Section 4: on why copyright is appropriate for academic works
Section 6: is it appropriate for libraries to be licensing for short term, when their mandate is for making accessible and maintaining for long term (future generations)?

It is archiving that "fixes" the
content and costs more than distribution,
particularly for maintenance of the archive.
It perhaps makes good sense to evolve an altogether different model for the conceptual
system of copyright – one based on the
archive model and not the distribution-based
business model. Although it appears to be very

revolutionary, given the restrictive abilities that the Digital Rights Management (DRM) software can impose, it is worthwhile to consider and revisit copyright laws from a fresh perspective of "archiving" rights rather than "copying" rights

Don't agree that copyright should be applied to archive and not the distribution-based business models. Too hard to distinguish in all digital environment, and not really clear break. The real solution in my opinion is for academics to publish with different license (creative commons) so that it is publicly available. This will ultimately force publishers who work with academic works to adhere to a business model that is not profit driven, but promotes dissemination and discovery of academic knowledge.

In the print paradigm, publishers were not bothered about preservation while libraries took great pains to preserve, and in many academic institutions issues of journals may be bound into volumes and remain accessible for users, via the library archive, long after the journal has ceased publication. In the digital paradigm this function is slowly shifting to the publishers. The issues that compound the fact are the problem of lack of infrastructure and the wherewithal in libraries to undertake preservation and the software required for searching and accessing the archive that is developed at considerable cost by the publishers

Who should preserve these scholarly materials? Brad suggests that Government fund and provide this service for the public good (or perhaps international federation of governments). Otherwise publishers or private companies like Google will choose to house them to gain value from them (but not necessarily for public good in long term). I suggest the best solution is that the Library of Congress should house all US published materials (and offer to do so for whole world as way to better the world through improved scholarly communication). Unlike print materials, they can then be accessible to anyone for free. And it's a small cost to archive them. They would provide archive, preservation, registration. Then we'd layer on to of this archive the other parts of academic publishing process (copyproofing, certification).

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#4 Solutions to Serials Crisis

The Big Picture: Workflow and Participants and Cost

a) Showed involved Participants/Groups involved with scholarly communications. Examine their needs. (draw flowchart). Discuss what are current shortcomings (i.e. slides from surveys of academics; note we don't have from other participants, but can guess from profit motives of publishers etc).
b) OLD vs NEW Draw on board old process (paper) vs new process (digital). Walk through of how technology has changed things. (if time, and not sure where is best?? Maybe in #3?)

NOT DONE: Now that we know details, what the big picture? I.e. what's the point of scholarly communications? Have class sketch out motivations (small group exercise): **30 mins**

- What do the authors want (get) out of it?
- What do business people involved want (publishers, libraries, universities, etc).
- How do artefacts we've discussed meet these needs?
- What changes does electronic/digital publishing afford?

Review their A1 and talk about specifics of change in these areas: **20 mins**

Readings

Branin Changes in Collection Development and Management

Not good license management software available today (Nina).
Consortia examples: (local examples) NC+SC licensing, TRLN, NCLIVE (legislation funded, some independent from private universities).

Explosion in growth of volume of scientific publications (number of articles, number of journals).

> *In 1870, 840 papers were published in mathematics; by the middle of the 1990s, 50,000 new mathematics articles were being published annually (Odlyzko 1995). The second half of the twentieth century has been a time of spectacular growth in all fields of knowledge, especially in scientific disciplines. According to Cummings et al. (1992, 61), book production in the United States began an "extraordinary expansion" in 1945 that was "particularly rapid during the first half of the 1960s." The creation of new science journals, as reported by Science Citation Index source publications, dramatically increased in the four decades from 1950 to 1990, with the 1970s being the decade of the most dramatic scientific journal growth (Cummings et al. 1992).*

Question: what has it been the last 30 years? I.e. even more explosive growth due to ease of digitally publishing. (includes "low quality" and "predatory" journals).

Change from collection development to collection management

Change from collection management to collection licensing (Brad)
Attempt to collect cooperatively; or more specifically *("libraries are becoming museums"-Brad)*

a) curate special collections of what you're expert in, make digitally available
b) put digital copies (CLOCKSS) other places for safekeeping.

Changing Priorities for collections:

the emerging dominance of the sciences in the university's hierarchy of disciplines, the demands of government funding agencies for "relevant" research, and the decline in foreign language competencies made the older humanities-based model of collection development in research libraries less effective. Osburn concluded that a more service-oriented model of collection development, one that emphasized currency, responsiveness, and focused attention to user needs, was needed.

Cooperative collecting: good idea, hard to implement, at least for physical materials. So are digital materials a game changer for this (Hathi Trust, Open Library, ibiblio)?

The Center for Research Libraries, however, emerged as a viable model for depositing and sharing highly specialized research material. Some carefully focused regional efforts, such as the one involving the academic libraries in North Carolina's Research Triangle, did provide some longstanding cooperative collection development opportunities for the libraries involved (Dominguez and Swindler 1993). By and large, however, most cooperative collection develop-ment experiments from the 1950s through the mid-1980s were not successful. The strong political pull of local library autonomy, combined with the technical difficulty of moving print material quickly and economically over geographic distances, tended to make cooperative collection development difficult and impractical (Branin 1991).

Are libraries the central heart of academic institutions?

Howe (1993) described the emerging situation as the "decentering of the library" within institutions of higher education. According to Howe, a history professor and interim director of libraries at the University of Minnesota, the library might still have been the symbolic heart of the university, but for several reasons it was losing its central place as a funding priority on many campuses. First, new information technology was creating alternative paths for access to scholarly information, and investments in technical infrastructure and computing centers diverted

funding from the traditional library. Second, the decline in arts mid sciences and the rise of science and technology programs in universities eroded the power of disciplines that most directly supported the traditional library. Third, the profession of librarianship itself seemed to be in disarray, fraught with uncertainty and anxiety over its future in the computer age. Fourth, libraries were not competitive enough in the new, aggressive environment of higher education

Discipline Differences in Scholarly Publishing

The divergence among disciplines—and even within
disciplines in the sciences (Kling and McKim 1998)—is noteworthy. Scholars in the sciences publish their research results in journals, rather than in monographs, in part to be able to report as
rapidly as possible. They are, for the most part, comfortable with digital access to journal articles and, in many cases, communicate widely and share initial results of their research electronically, e.g., through the use of electronic preprints. In some disciplines, such as mathematics, scholars regularly use back issues of journals in their fields; in others, such as computer science, they do not. In some areas of the humanities, however, such as history, monographs, not journal articles, are required for tenure and promotion. Rapid dissemination of results is less important in the humanities than in the sciences (hence the different editing practices), and older publications are consulted more frequently than in many scientific disciplines. There are some areas of the humanities, such as philosophy, however, where monographs play a much smaller role than do journal articles.
Yet another field of study, law, is radically different from both the humanities and the sciences. Articles are generally not peer-reviewed but are reviewed by the law school students who usually edit these journals. The journals are inexpensive and largely subsidized by the universities that publish them. Commercial journals are not the most prestigious; rather the prestige of a law journal generally comes from the ranking of the law school that publishes it

Print vs Digital content:

It is unlikely that more than 10% to 15% of a research
library's collection budget is used today to purchase or provide access to digital information.

What percentage of library's research collection budget today is for digital vs print?

Transformations enabled by technological change:

Fundamental changes in scholarly communications are certainly in store. The traditional book and journal as organizing frames for scholarship will likely change as will basic production, distribution, and archiving. Ginsparg, a physicist at the Los Alamos National Laboratory, Odlyzko, a mathematician at AT&T Bell Laboratories, and Atkinson, a research librarian at Cornell University, all have written provocatively about the demise of the traditional scholarly communication system and what its replacement might be. Taking full advantage of desktop publishing capabilities, networking, and powerful computer servers, ***Ginsparg*** *(1996) envisions the development of an electronic "global raw research archive" managed by a consortium of professional societies and research libraries.* ***Odlyzko*** *(1995) believes the new digital information system will allow scholars to become their own publishers and archivists. According to Odlyzko (49), "Publishers and librarians have been the middlemen between the scholars as producers of information and the scholars as consumers, and are likelv to be largely squeezed out of this business."* ***Atkinson*** *(1998) predicts the design of new, networked-based, hypertext, document structures that may "represent fundamental revi-sions in the every modality of communications" and that "may affect and alter some of our basic assumptions about the nature of information itself." (precursors to* ***DrH's*** *"ArchiveOne" plan ☺).*

This is article talks about PubMedCentral before it was implemented. It is now a hugely successfully, widely utilized resource.

New approaching to licensing digital content:

> *A strategy that counters the bundling of publications that most publishers use has emerged. California State University's (CSU) librarians and a high-level university committee from the twenty-one campuses of CSU sent out a request for proposal for a customized database that would offer full-text access to 1,279 journals selected by Cal State. This imaginative proposal moved the responsibility for selecting titles back into the hands of the institutions and their libraries and was welcomed by many as an alternative to the growing model of "all or none"*
>
> *site licensing of an entire publisher's journal output. A vendor, EBSCO Information Services, was selected, but the signed contract includes only about 500 of the 1,279 journals on the librarians' list. Some publishers who declined to participate were unwilling to accept the university's stipulations, which included a requirement that the university community have continued access to the articles even if a subscription was cancelled (there are no Elsevier Science journals in this contract) (Guernsey 1999; Biemiller 1999; Dalton 1999).*

Transformation to knowledge management:

> *With such changes taking place on their campuses, collection managers, subject specialists, and bibliographers must move from a primarily local, print collection perspective to a broader vision of "knowledge, management"—just as they had once been asked to move from "collection development" to "collection management." Scholars and librarians must recognize that the library and higher education are inextricably bound together. As Battin and Hawkins (1998, 5) have observed, "The transforming impact of information technology cannot be confined to the library but imply a fundamental reorganization of the host institution. The digital library, as the epistemological center of the university, is certainly positioned to serve as the catalyst for transforming the university to meet the needs of the 21st century society dominated by electronic technology."*

What if Dr.H's ArchiveOne happens and the Library of Congress archives and makes freely available all journals articles, all monographs, etc.? Or if on a less grand scale most major research institutions adopt open access and most articles are freely available. How would this change the role of the library at universities? What if you don't have to choose what to pay for since it's free? You don't make curation or collection decisions on acquiring. But you might in terms of curating finding aids, or building aggregations to support specific research areas (like what Branin hints at).

Suber Open Access

The whole thing!!! Start with the linked brief introduction, then walk through hitting highlights.

> *There are two primary vehicles for delivering OA to research articles,* OA journals *("gold OA") and* OA repositories *("green OA").*

Some emerging models of peer review presuppose OA, for example models of "open review" in which submitted manuscripts are made OA (before or after some in-house review) and then reviewed by the research community. Open review requires OA but OA does not require open review.

The first is to assume that there is only one business model for OA journals, when there are many*. The second is to assume that charging an upfront fee is an "author pays" model. In fact,* most *OA journals (70%) charge no author-side fees at all. Moreover,* most *conventional or non-OA journals (75%)* do *charge author-side fees. When OA journals do charge fees, the fees are* usually *(88%) paid by author-sponsors (employers or funders) or waived, not paid by authors out of pocket.*

This overstates somewhat I think. Vast majority of prime OA journals are author pays. Many non-OA journal fees are for color prints, excessive number of pages, etc.

Open Access provides many benefits to all the participants (see long list) in the scholarly publishing environment. It does not benefit commercial interests who profit from controlling the content and access to it.

This summarizes very well what I think is the most important takeaway. Step back, look at the big picture and you realize

The volume of published knowledge is growing exponentially and will always grow faster than library budgets. In that sense, OA scales with the growth of knowledge *and toll access does not. We've already (long since) reached the point at which* even affluent research institutions *cannot afford access to the full range of research literature. Priced access to journal articles would not scale with the continuing, explosive growth of knowledge even if prices were low today and guaranteed to remain low forever.*

Standardization of format. (previous reading Fjallbrant lists Cliff Lynch's suggestions). I think this is dated.

1. to deal with the basic "Raw" text by tagging such as with SGML - Standard Generalised Markup Language, which can deal with content - chapters, parts, etc, but requires extra handling for images, thereby producing compound documents.
2. use of a page markup language such as PostScript, which includes text plus typesetting directives and allows a user with appropriate hardware and software to reproduce the page as it appears in print.
3. Use of bit-mapped images to produce a picture of a page

My take is “separate content from presentation”. XML type representation underneath. Need to be able to recognize parts of document for automatic processing (text mining) and well as rendering (displaying on many devices). Talk about my research work on displays, annotations. This is where most publishers are slowly going. Best work is by NLM who has XML representation used for PUBMED Central and this is how most publishers are submitting (federally required) manuscripts.

How do we pay for publication? **(after open access discussion) (not covered in detail; yet)**

Discussed Open Access in detail

#5 Open Access cont’d

Open Access
Reviewed A2
Discussed Wild West issue with Open Access publishers (predatory publishing, image problems, etc).

#6 University Presses under fire and adapting to new world

What presses have large collections of open access materials available?

Who is publishing mid length “books” (20,000-50,000 words)?

What routes are presses taking to adapt to this new digital environment?

What publishers are University Presses using? (Amazon, Google Books, B&N, ?). Which ones are they using for open access (free publications)?

Few universities seem to have followed the open access as primary model of publishing. Main one Rice (connexions) lost university support, and it is now remade as OpenStax for OER publishing (Free textbooks, learning modules).

What is John’s take on:

However, while this model may be effective in reducing the costs of publication, it seems unlikely, based on experience so far, that POD sales will be sufficient to sustain the full costs of publication. Initial experiments in publishing books online free while selling print editions—whether new

titles or backlist—indicate that online editions receive substantial usage, but print sales remain limited.1

In addition, among publishers engaged in these projects, there is significant concern that print sales will erode even further, as readers become more comfortable with reading online and libraries feel less compelled to buy print editions for archival purposes. The online free/print for sale model thus seems likely to be a transitional strategy.

Thoughts on National Academies Press and RAND and OAPEN (OpenAccesEuropeanNetworks)

NAP's long experiment in openness has made a few lessons clear, according to NAP Director Barbara Kline Pope: "We're in perpetual transition. As reading habits and expectations change among our customers and our leadership, we've had to adapt our online reading experience, our staffing, essentially all of our approaches to fulfilling the main missions of self-sustainability and dissemination." Prior to 2004, NAP could make the case that open access increased sales, because it enabled reader discovery far more than it supplanted purchases. "Since then, it's become increasingly clear that free content can compete with book sales," Pope continues. "For us, that 4 On the National Academies Press experiments, see Barbara Kline Pope and P. K. Kannan, An Evaluation Study of the National Academies Press's E-publishing Initiatives: Final Report, January 31, 2003, http://aaupnet.org/resources/mellon/nap/index.html.16 hasn't meant 'quit being open,' but rather 'find ways to improve efficiencies and increase the universe of people who find us, to remain open while also being sustainable.'"

RAND has seen a decline in demand for printed products over the past two years as the number of downloads continues to escalate. Ryan says, "There has been an increased demand for e-books through our distribution partners, and that is where we are currently focusing our marketing efforts." Readability on e-readers and smart phones is an important issue, especially given the complex nature of RAND publications, which often include complex tables, figures, and math.

The plan to support OAPEN through a mix of revenue sources is one of its key features, as is the effort to introduce publication fees as one of those sources. Publication fees—often called "author fees," although they are typically paid not by authors themselves but by research grants or other institutional funds—are emerging as an important model for funding open access STM journals; but the model has yet to be tried for books, or, indeed for any type of publication in the humanities. Obstacles to instituting publication fees in HSS publications have been both cultural and financial. Since there is no tradition of fee-based publication, scholars tend to equate the model with vanity publishing. They do not enjoy the level of grant funding typical in the sciences, where research grants often cover publication fees. The cost of publishing humanistic scholarship is a further barrier. A recent report commissioned by the National Humanities Alliance, which analyzed the costs of publishing flagship journals for eight scholarly societies in the humanities and social sciences, found that the per-article cost for these journals is significantly higher than for the typical STM journal, partly because articles are typically longer but also because of the high submission rates and overhead involved in processing them.9

Preservation Issues: this is true for all formats, but certainly easier for PDF/A than for multimedia collections using a multitude of formats that more quickly expire.
The potential vulnerability of digital projects, combined with the evolving nature of technology, means that the publishers of digital scholarship (in this case, the University of Virginia Press), must consider not only production, distribution, marketing, and all of the traditional services associated with print publication, but also a particularly intensive kind of stewardship. Unlike print publications, which after production are a relatively stable material reality, digital publications will require continuous updating, maintenance, and migration to new systems."

Collaborations:

- Presses with Libraries (publishing) and IT unit (storage, web access) on campus.
- Presses with Publishers
- Consortiums of Presses