What is Scholarly Communication?

Joy Kirchner
Collections, Licensing & Digital Scholarship

UBC Library
Eventually, Steve looked up. His mother was nowhere in sight and this was certainly no longer the toy department.

Gary Larson
Agenda

• Definition of Scholarly Communication
• Intellectual Property – Author rights & Copyright
• Sustainability & Economics of Scholarly Publishing
• Open Access & Public Access to Research
• New Models of Scholarship
Definition

Scholarly communications covers a broad range of activities, including the discovery, collection, organization, evaluation, interpretation and preservation of primary and other sources of information, and the publication and dissemination of scholarly research. “Mellon Foundation, 2008 Annual Report, 30

The Scholarly Communications System incorporates and expands on the more familiar concept of scholarly publishing and includes both informal and formal networks used by scholars to develop ideas, exchange information, build and mine data, certify research, publish findings, disseminate results, and preserve outputs. This vast and changing system is central to the academic enterprise. – Lee Van Orsdel

Scholarly communication—the process used by scholars to share the results of their research—is fast approaching a crossroads. – Cornell

Scholarly communication is an umbrella term used to describe the process of academics, scholars and researchers sharing and publishing their research findings so that they are available to the wider academic community (such as university academics) and beyond. - Wikipedia

Scholarly communications is the process by which scholarship is produced, supported, managed, and communicated, and includes all those involved in supporting the life-cycle of scholarship. – Joy Kirchner
Iterations in the life cycle of scholarship

Idea
research
data
manuscript
copyrights assignment
peer review
copy editing
publication
dissemination
preservation
expansion/reformulation

*Mentorship roles in the academy*
Iterations in the life cycle of scholarship

- Formulation
- Registration
- Certification
- Dissemination
- Preservation
major participants in that life cycle

researchers
authors
foundations
federal agencies
universities
scholarly societies
publishers
libraries
taxpaying public
pressure points

Create

Publication (Registration and Certification)

Dissemination

Academic Library

Reformulation
Disruption #1: Unsustainability of the economic model
STM sector

$16.1 B

revenue in 2006

84% of total revenue

SSH sector

$3 B

15.7% of total revenue

Data from Outsell's 2006 STM market report
Data from Outsell's 2006 STM market report

STM $16.1 B

$ 5.8 billion

Elsevier  
Kluwer Health  
Springer  
Amer Chem Soc  
John Wiley  
Blackwell (merged with Wiley 2007)

$ 10.3 billion

other 1,195 publishers
Dysfunction rooted in problematic economic model
normal economy

Steelmakers → Steel → Auto manufacturers → Cars → Consumers

Steel → $ → Auto manufacturers

Cars → $ → Consumers
gift economy

Author

P&T
Grants
Reputation
Prestige
Universities
Taxpayer

Publisher

Article

Journal

Library

P&T
Grants
Reputation
Prestige
Universities
Taxpayer

$
wholesale transfer of rights
creates scarcity/monopoly
drives prices up
(inelastic market)
The result:

- Average serial price up 227%
- Average book price up 65%
- CPI up 57%
Scholarly communications reform includes efforts to establish balanced, sustainable economic models.
Disruption 2: Web
most scholarly publications still mimic print: linear, formal, publisher-coordinated
Internet creation publication dissemination reformulation

Scholars are beginning to exploit the power of the Web
Iterations in the life cycle of scholarship

Idea
research
data
manuscript
copyrights assignment
peer review
copy editing
publication
dissemination
preservation
expansion/reformulation
internet

creation
publication
dissemination
reformulation

? 

PUB
ED
P-R
LIB
Internet

creation
publication
dissemination
reformulation

Disaggregation of traditional system?
new models are popping up

repositories

e-journals

working papers

data banks

preprints
### Scholarly Communication

#### New Model Publications

**ARL New Model Publications Study**

More than a decade into the communication revolution initiated by the rise of the World Wide Web, the time is ripe to look across research fields and ask what new kinds of works researchers and scholars are using. Recognizing the largely unexplored diversity of new kinds of scholarly works, ARL initiated a study in 2008 to describe these new-model publications.

The study had two segments: the first phase—the field study—engaged librarian volunteers in arranging structured interviews with faculty members at their institutions to learn about publications that are currently in use by scholars and researchers, while the second phase consisted of interviews with managers of new model works and the preparation of a report. ARL contracted with Ithaka to manage the field study and to write the final report based on analysis of the collected works.

Both the study report and a searchable collection of new model resources gathered during the study are now freely available. The report provides a detailed picture of the patterns and trends that have emerged to date. Emergent genres, disciplinary patterns, and peer review practices are all described. The accompanying searchable collection offers 206 examples of new model works along with descriptive information gathered for the study.

Over 300 librarians participated in the field study phase and interviewed hundreds of faculty members from across the country.

**Faculty choices, original, scholarly, evaluated**
Disruption 3: Open Movement
disruption:
Open Movement

power of ‘open’
disruption:
Open Movement

access grows impact
Open Movement

taxpayers should have access to the research they fund
disruption:
Open Movement

universities create new knowledge *for the good of society*
disruption:

Open Movement

there’s more than one way to fund a scholarly distribution system
What do we mean by open?

Open to contributions and participation

Open and free to access

Open to use & reuse w/few or no restrictions

Transparency
Open to contributions and participation

Participate in OpenOffice.org

OpenOffice.org always welcomes new contributors – especially new programmers. But no matter what your skills and interests are, there is a place where you can participate to improve OpenOffice.org:

- Programming
- Quality Assurance
- Writing
- User Experience
- Marketing
- Graphics and Art
- Helping Users
- Monetary Donations
- Language Communities

Before submitting your work, please read the 'Guidelines for Participate in OpenOffice.org'. It will enumerate to you how contributions will be used, and how the OpenOffice.org community organises its collaboration.
As opposed to…
Autoimmune Thyroid Disease with Fluctuating Thyroid Function

Ali S. Alzahrani¹, Saleh Aldasouqi¹, Suzan Abdel Salam¹, Ali Sultan¹

¹ Department of Medicine, King Faisal Specialist Hospital and Research Centre, Riyadh, Saudi Arabia

**Competing Interests:** The authors have declared that no competing interests exist.

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**Received:** October 25, 2004; **Accepted:** February 6, 2005; **Published:** May 31, 2005

Copyright: © 2005 Alzahrani et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

**Abbreviations:** FT4, free thyroxine; L-T4, levothyroxine; TFT, thyroid function test; TSH, thyroid-stimulating hormone

* To whom correspondence should be addressed. E-mail: alisz@kfscr.edu.sa
As opposed to…

A CTLA-4 gene polymorphism is associated with both Graves’ disease and autoimmune hypothyroidism

Authors: Kotsa, K.; Watson, P. F.; Weetman, A. P.
Source: Clinical Endocrinology, Volume 46, Number 5, May 1997, pp. 551-554(4)
Publisher: Blackwell Publishing

The full text electronic article is available for purchase. You will be able to download the full text electronic article after payment.

$42.40 plus tax

[Credit/debit card] [Institutional payment account]

OR

[Add to cart] Purchase later
Open to use and reuse with few or no restrictions

Many Flickr users have chosen to offer their work under a Creative Commons license, and you can browse or search through content under each type of license.

Here are some recently added bits and pieces:

**Attribution License**

From Enrique... From magikxerox From magikxerox From temaki From Banalities

» 12,250,874 photos (See more)

**Attribution-NonCommercial License**

From mloukoulis From dockdrunning From dockdrunning From grupodefotos From dockdrunning

» 13,864,345 photos (See more)
As opposed to...

AP Sues Artist Over Obama ‘Hope’ Image Copyright
Transparency

myExperiment makes it really easy to **find, use and share scientific workflows** and other **files**, and to build **communities**.

Use myExperiment to...

- **Find Workflows**
- **Find Files**
- **Share Your Workflows and Files**
- **Create and Find Packs of Items**
- **Create and Join Groups**
- **Find People and Make Friends**
- **Send Messages**
- **Get Feedback**
- **Tag and Rate things**
- **Write Reviews and Comments**
- **Build your Profile and Reputation**

or Login:

- **Username or Email**
- **Password**
- **Remember me:**

Or use OpenID:

(cgi: name.myopenid.com)

Forgot Password?
As opposed to...
Commonalities

- Generally enabled by technology
- Works both inside and outside of traditional models
- Supported by a variety of business models
Open movements

- Open access
  - Public access
  - Open source
  - Open education
  - Open data
  - Open science
  - Open books
  - Open peer review....
Open access literature is digital, online, free of charge, and free of most copyright and licensing restrictions.

Peter Suber
Open Access

By 'open access' to literature, we mean its free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited.

-Budapest Open Access Initiative-
2002
Some common misconceptions

- Open access means no copyright
- Open access is free
- Open access always means the author pays
- Open access will destroy peer review
- Open access will destroy publishers
2 Paths to Open Access

manuscript ....

New Models of Scholarship

Open Access journal
(PLOS Medicine; Biomedcentral, DOAJ)

Traditional subscription access journals

Open access copy

Articles can be made OA by publishing in an OA journal or self archiving OA copies from a traditional publication
Open Access Publishing (‘Gold’)

- Publication that is free & open for anyone to access
- Share all characteristics with “Toll Access” journals except free, open, and generally only electronic
- Supported by variety of models
  - Institution / funder supported OR author-supported (2006 – 47% author supported)
- Generally allow authors to retain copyright and/or license under creative commons
- 4380 number of OA journals according to Directory of Open Access Journals across all disciplines
Examples

Postcolonial Text

Understanding Basic Music Theory

Collection type: Course
Course by: Catherine Schmidt-Jones

Start »

Summary: An expanded version of “Introduction to Music Theory”, this course includes a review of common notation and an introduction to the physics behind music theory, as well as the basic concepts of music theory and a few slightly advanced but very useful topics, such as transposition.

This collection contains:

Modules by: Catherine Schmidt-Jones, Russell Jones
Open Access via Archiving/Repositories (‘Green’)

- Literature published through traditional channels that is made openly available through deposit in a repository or placing on web site
- Institutional, departmental, or discipline based repository
- Range of publisher policies on deposit
  - Often post-prints (final author manuscript) can be deposited but publisher version cannot
Your University, Your Research

cIRcle is an Information Repository (or institutional repository) for published and unpublished materials created by the University of British Columbia. cIRcle is also openly accessible, which means that it is freely available to anyone via the World Wide Web.

cIRcle consists of various communities and collections. Communities are UBC departments, labs, research centres, schools or other administrative units. Each community oversees one or more of its own collections, which contain submitted items.

The benefits of submitting to cIRcle include:
- increased citation of articles compared to non-open access items;
- an easier and cheaper way for you to exchange scholarly information with your peers;
- heightened visibility of your submissions due to search engines like Google and Yahoo and indexers like OAster and CARL finding your material quickly and easily.

Scholarly communication comes full circle

Over the past few decades, the cost of scholarly publishing and journal subscriptions - especially in the areas of science, technology and medicine - has surged.

Digital archives such as cIRcle provide an opportunity to make UBC’s intellectual output freely available online. We organize and preserve the content, and make it accessible to the local community and to national and international audiences.

IRs are an excellent way to illustrate universities’ contributions to the public - who, after all, offer invaluable support to our institutions.

As universities use IRs to control and share their output, scholarly communication and publishing are truly coming full circle.

* N.B. cIRcle is currently in pilot mode and will officially launch in spring 2008.
Hybrid open access

The author is given the option to pay a publication charge to make his or her article Open Access immediately on publication. Access to articles by authors who choose not to pay (and other content) require a subscription.

- American Chemical Society
- American Institute of Physics
- American Physical Society
- BMJ (British Medical Journal)
- Blackwell
- Cambridge University Press
- Elsevier
- Oxford University Press
- Royal Society (UK)
- SAGE Open
- Springer
- Taylor and Francis
Open Source

- Free to download
- Open to modify
- Contribute back code
Open Content

- Licensed to permit reuse & remixing
- Anything that’s copyrightable can become open content: images, text, music, video
- Open content license examples include Creative Commons, GNU General Public License, Berkeley Software Distribution (BSD)
On July 8, 1853, residents of feudal Japan beheld an astonishing sight—foreign warships entering their harbor under a cloud of black smoke. Commodore Matthew Perry had arrived to force the long-secluded country to open its doors.

This unit was funded in part by The National Endowment for the Humanities, The d’Arbehoff Excellence in Education Fund, The Center for Global Partnership, and MIT iCampus Outreach.
Connexions is:

a place to view and share educational material made of small knowledge chunks called modules that can be organized as courses, books, reports, etc. Anyone may view or contribute:

- authors create and collaborate
- instructors rapidly build and share custom collections
- learners find and explore content

More about us ...  New features

FIND CONTENT

8566 reusable modules woven into 472 collections.

Search Content  Go

or browse by ...  

Subject
- Arts
- Business
- Humanities
- Mathematics and Statistics
- Science and Technology
- Social Sciences

Language

Popularity

Title, author, etc.

CREATE CONTENT

Creating content in Connexions is as easy as 1, 2, 3:
Open access to data not just papers.

Data should be available in reusable forms (not tied up in PDFs for example) – Data wants to be acted upon.

Working Group on Open Data in Science (http://okfn.org/wiki/wg/science) and Science Commons (http://sciencecommons.org/)
Open Data Examples

Dynamic, constantly updated, in progress

Evaluation criteria
Open Data Examples
(Partnerships with the community)

Help Scientists Track Rusty Blackbird Migration!

October 24, 2008

Populations of Rusty Blackbirds are crashing! Their numbers have plummeted by as much as 88-98% over the last few decades, according to data gathered between 1966 and 2006 for the North American Breeding Bird Survey and Christmas Bird Count. A species that was once considered to be abundant is rapidly disappearing before our eyes. Your observations can help save this species by arming scientists with critical information about its migration ecology. Last spring we conducted a pilot study with the Rusty Blackbird Working Group where eBirders collected migration data over a one week period. While the data collected were excellent, we found that short survey window to be inadequate for gathering data from across much of the species’ route. So this year we're broadening the net! Birders across North America are asked to help scientists by recording Rusty Blackbirds during the entire fall migration period using eBird. Your observations of this species can help fill in the

Objective: To convert adrenaline to DOPAL using acid catalysis. How this fits into the synthesis of anti-malarials is described here.

Procedure: Taken from Robbins (1965). A solution of adrenaline (227.74 mg, 1.243 mmol) in 85% phosphoric acid (6 mL) was heated in a 12mL vial to 120°C in a glycerol bath then removed from heat and allowed to cool for 30 seconds. The solution was added to distilled water (36 mL) and then saturated with NaCl. An ether extract (15 mL, 15 mL, 10mL), was dried over MgSO4 then evaporated to yield 16A (15.6 mg).

Results
Characterization of 16A
TLC of 3:1 methylenechloride methanol with iodine to stain.
HMR[with integration], HMR extension. NMR 8.5-9.7
solubility: good in methanol, poor in methylene chloride
HMR D2O added making 16B (note: the scale is way off)

Discussion:
A plausible assignment of the major peaks for the HMR of 15A:
New tools
Summary

• Principle of openness not just about ‘free’
  – Ability to reuse
  – Ability to contribute to and participate in
  – Transparency

• Multiple methods for open access and multiple business models to support

• Public access generally different argument than open access

• Range of movements around ‘openness’ in higher education
Pressure for change:

• 132 PROVOSTS support Open Access: http://www.arl.org/sparc/advocacy/frpaa/institutions.html

“If universities pay the salaries of researchers and provide them with labs, and the federal government provides those researchers with grants for their studies, why should those same universities feel they can’t afford to have access to research findings?” http://insidehighered.com/news/2006/07/28/provosts

• Researchers are putting pressure on Societies: (e.g. Royal Society members); PLoS’ Open letter: http://www.plos.org/support/openletter.shtml

• OA publications are more often cited: Eysenbach G. Citation advantage of open access articles. PLoS Biol 2006;4(5):e157.
Other Pressures:  
*Mandates to Encourage OA from Government Agencies*

**In Canada:**
- Canadian Institutes of Health Research (CIHR) – as of Jan 1, 2008:  
  Research must be deposited in an Institutional Repository or Pubmed Central within 6 months of publication.
- (SSHRC, NSERC …)

**Elsewhere worldwide:**
- As of October 1, 2006, all Wellcome Trust funded research must be deposited in PubMed Central:
- U.S. National Institutes of Health (NIH) – deposited in OA within 12 months of publication as of April 7, 2008.
- Federal Research Public Access Act of 2006 (Senate Bill 2695)
- U.K. House of Commons Science & Technology Committee
- European Union & DAREnet
Faculty(Institutional) Mandates: i.e. Harvard’s OA Policy

FOR IMMEDIATE RELEASE

Contact: Robert Mitchell
617.496.5399

Harvard To Collect, Disseminate Scholarly Articles For Faculty

Legislation Designed To Allow Greater Worldwide Access

Cambridge, Mass. - February 12, 2008 - In a move to disseminate faculty research and scholarship more broadly, the Harvard University Faculty of Arts and Sciences voted today to give the University a worldwide license to make each faculty member’s scholarly articles available and to exercise the copyright in the articles, provided that the articles are not sold for a profit.

In proposing the legislation, Professor Stuart M. Shieber said, “There is no question that scholarly journals have historically allowed scholars to distribute their research to audiences around the world. But, the scholarly publishing system has become far more restrictive than it need be. Many publishers will not even allow scholars to use and distribute their own work. And, the cost of journals has risen to such astronomical levels that many institutions and individuals have cancelled subscriptions, further reducing the circulation of scholars’ works.”
We are nearing the point where it will be unusual for any leading institution or funder *not to* have a mandate!

212 listed in ROARMAP
http://www.eprints.org/openaccess/policysignup

*Eg.* University of Ottawa, University College London, Harvard, Stanford, MIT, and others
Wellcome Trust, NIH, CIHR
Researcher benefits

- **Visibility and impact of research**
- **Gives an indicator of the impact of your research is having in your field, helps identify who is reading your work and encourages impact to be more related to the merit of your work and not the name of the journal it is finally published**
- Safe, backed-up secure place to store research output
- Persistent web address for citing research
- Ease with complying & fulfilling grant funding OA mandates
- **Allows University to negotiate author rights and deposit in OA repository directly with publishers on behalf of authors**
- Easier to keep abreast of latest research findings and connections with others work at your institution.
- Reduce your workload managing your portfolio of scholarly works
- Improve your understanding of copyright and increased awareness of your rights and maximize the return of your efforts
- Offers new opportunities for publishing your work
- Makes possible easy to access materials previously only available in print
Institutional benefits

- Visibility and impact of research
- Fosters and facilitates greater interdisciplinary collaboration
- Serves strategic goals of university of greater international impact and collaboration and return on investment
- Contributes to University mission and values (i.e. access to research in the service of society)
- Effective management of research programmes
- A means to measure and assess research programmes
- A tool to support internal & external driven audits of research activity (i.e.. External reviews, accreditation)
- Strategic marketing tool; showcases research to funders, donors, prospective researchers and students
- Provide new opportunities for preserving and archiving valuable digital works
- Provide meaningful reports on scholarly work - act as a barometer of research activity in a particular field
- Improve the accuracy and completeness of the institution’s record of scholarly works
Be prepared for common OA misconceptions

Misconceptions that an OA policy will:

• negatively impact academic societies or journal publications particularly low cost humanities journals
• is not easy to comply with
• is not good for authors
• negatively interfere with author’s freedom to publish where they choose.
• impact junior faculty members’ tenure
• will affect peer-review.
• will force publishers to change business models.
• will force faculty to publish in OA journals.
• only support STM needs not other disciplines
• negatively impact researcher competitive advantage – research will be scooped.
We refuse to accept a future of digital feudalism where we do not actually own the products we buy, but we are merely granted limited uses of them as long as we pay the rent.

We believe that culture should be a two-way affair, about participation, not merely consumption. We will not be content to sit passively at the end of a one-way media tube.

We will make, share, adapt, and promote open content. We will listen to free music, look at free art, watch free film, and read free books. All the while, we will contribute, discuss, annotate, critique, improve, improvise, remix, mutate, and add yet more ingredients into the free culture soup.

The mission of the Free Culture movement is to build a bottom-up, participatory structure to society and culture, rather than a top-down, closed, proprietary structure. Through the democratizing power of digital technology and the Internet, we can place the tools of creation and distribution, communication and collaboration, teaching and learning into the hands of the common person — and with a truly active, connected, informed citizenry, injustice and oppression will slowly but surely vanish from the earth.

We believe that culture should be a two-way affair, about participation, not merely consumption. We will not be content to sit passively at the end of a one-way media tube.
Should student doctors have a life?
Goldis Chami, September 21, 2010 at 10:34 AM

Chatting with one of my classmates, she relayed a story about how she ran into one of her patients at a bar a few weekends ago.

Let me explain: Very early on in our training we begin to be exposed to real, live patients in real, live doctor's offices. We start small, asking them about what they have come in to see the physician for, or their "chief complaint". Then we FIFE them. FIFE stands for Feelings, Ideas, Functioning and Expectations: We basically want to get a sense of what the patient's fears are around the concern that has brought them in, how the problem is affecting their everyday life, and what they are hoping the doctor might be able to do for them.

Once we’ve gotten the basics of chief complaints and FIFE-ing down, we move onto learning how to take full medical histories. Later in the year, we try our luck at taking blood pressure measurements, listening to lungs to hear the crackles...
Questions?
Comments?
This work was created by Joy Kirchner, Lee Van Orsdel, Sarah L Shreeves for the ACRL National Conference, Scholarly Communications 101 Workshop and last updated April 8, 2010.

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