The inevitability of Open Access. Why librarians have to foster it.
Continuing Education Course.
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Aim

• To provide a space to discuss why librarians must be committed to Open Access and foster it among authors, researchers and users.
Course structure

• Module 1:
  – Key aspects and approaches of Open Science, Open research data and Open Access.
  – Some keypoints: legal issues, benefits and advantages of OA, business models of academic publishing, etc.

• Module 2 (hands-on): Knowledge Café/Safari. 4 scenarios
  – Researcher needs
  – Health repositories and self-archiving
  – Encouragement of OA among users and researchers
  – OA publishing
Open Science refers to efforts by researchers, governments, research funding agencies or the scientific community itself to make the primary outputs of publicly funded research results – publication and the research data – publicly accessible in digital format with no or minimal restrictions as a means for accelerating research; these efforts are in the interest of enhancing transparency and collaboration, and fostering innovation.

Open Access
Open research data
Open source software
Open research notebooks
Open access to research materials
Post-publication peer review
Open collaboration enabled through ICT tools
Research crowdfunding
Citizen science
OPEN SCIENCE
Aims

To support **better quality science**
To **increase collaboration and engagement** between research and society

Key elements

**Transparency** in experimental methodology, observation, and collection of data
**Public availability** and **reusability** of scientific data
**Public accessibility** and **transparency** of scientific communication
**Scientific collaboration** facilitated by using web-based tools

Requirements

**Interoperability** of scientific infrastructure
**Open and shared research methodologies** (such as open applications and informatics code)
**Machine-friendly tools** (that allow text and data mining)
Research data

- Results of experiments
- Measurements
- Survey results
- Observations resulting from fieldwork
- Interview recording
- Images
- Statistics

access, mine, exploit, reproduce and disseminate openly free of charge.

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Link to the full text
Crawl articles for indexing
Convert to another format
Transmit and display the work publicly
Etc.

Gratis OA

Limits
Recognition (Right to be properly acknowledge and cited)
Integrity of the work

Libre OA
The purpose of open access

Removing access barriers to this literature will accelerate research, enrich education, share the learning of the rich with the poor and the poor with the rich, make this literature as useful as it can be, and lay the foundation for uniting humanity in a common intellectual conversation and quest for knowledge.

http://www.budapestopenaccessinitiative.org/read
The benefits of Open Access

Fuller and wider access to scientific publications and data helps to:

• **Build on previous research results** (improved quality of results)
• **Encourage collaboration & avoid duplication of effort** (greater efficiency)
• **Speed up innovation** (faster progress to market means faster growth)
• **Involve citizens and society** (improved transparency of the scientific process).

We were stunned recently when we stumbled across an article by European researchers in Annals of Virology: “The results seem to indicate that Liberia has to be included in the Ebola virus endemic zone.” In the future, the authors asserted, “medical personnel in Liberian health centers should be aware of the possibility that they may come across active cases and thus be prepared to avoid nosocomial epidemics,” referring to hospital-acquired infection. **What triggered our dismay was not the words, but when they were written: The paper was published in 1982.**

Dahn B, Mussah V, Nutt. Yes, we were warned about Ebola. The New York Times; 2015 Apr 7. http://www.nytimes.com/2015/04/08/opinion/yes-we-were.warned-about-ebola.html?_r=1
The fact is that research funded with public money is simply not open to that very same public. New scientific knowledge disappears behind a wall, out of the reach of doctors, of general practitioners; people who may want to know more about a certain disease. All these people are deprived of research and knowledge,
Vice President Biden: Taxpayer-funded cancer research shouldn’t sit behind walls

Timothy Vollmer, April 22nd, 2016

On Wednesday in New Orleans, U.S. Vice President Joe Biden spoke at the convening of the American Association for Cancer Research on the need to speed up scientific research, development, and collaboration that can lead to better cancer treatments.

Vice President Biden is leading the National Cancer Moonshot Initiative, which aims to accelerate cancer research and "make more therapies available to more patients, while also improving our ability to prevent cancer and detect it at an early stage."

https://blog.creativecommons.org/2016/04/22/vice-president-biden-taxpayer-funded-cancer-research-shouldnt-sit-behind-walls/
Subscription-based journals

SO, LET’S GET THIS STRAIGHT: THE TAXPAYER PAYS FOR YOUR LABS AND RESEARCH?

YES...

AND YOU ARE FORCED TO GIVE YOUR PAPERS TO SOME HIGH CLASS JOURNAL FOR PUBLICATION?

YES...

AND WE NEED TO FUND YOU AGAIN SO THAT YOU CAN READ YOUR OWN PUBLICATIONS?

YES! TOLD YOU

by Patrick Hochstenbach CC-BY
I hit a lot of paywalls, like you have to pay $40 per article, and unfortunately I couldn’t shell out a lot of that… So, instead, I would have to cheat and copy the article title back into Google and look for PDF versions, and a lot of the time I actually found them on the NIH PubMed site. 

Jack Andraka
...through the Internet anything is possible. Theories can be shared, and you don't have to be a professor with multiple degrees to have your ideas valued. It's a neutral space, where what you look like, age or gender, it doesn't matter. It's just your ideas that count...You could be changing the world. So if a 15-year-old who didn't even know what a pancreas was could find a new way to detect pancreatic cancer, just imagine what you could do.
Routes to Open Access

Gold

Publishing in a way that allows immediate access to everyone electronically and free of charge.

Publishers can recoup costs of publishing through payments from authors (APCs), advertising, donations or other subsidies.

Green

Depositing the final peer-reviewed research output in an electronic archive called a repository.

Access to research output can be granted either immediately or after an agreed embargo period.
Gold Road
APCs - Article processing charges

Open Access publishing
- Gratis OA Journals
  - Right to access
- Free OA Journals
  - Right to re-use

Hybrid journals
- Open Access option Fee - APCs
  - Right to re-use

Right to access
Right to re-use
Author rights

Moral rights: Attribution and integrity of the work

Economic rights: reproduction, distribution, adaption or modification, public performance, and public display of the copyrighted work

Copyright transfer agreement

Author

Publisher

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To publish

Gratis OA Journals
Subscription-based and hybrid journals

Libre OA Journals
OA option (Hybrid journals)

Copyright holder

Self-archiving policy
- Place to deposit
- Authorized version
- Time for deposit
- Any other condition

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Self-archiving
Article versions in the peer-reviewed process

Author’s pre-print
- unreferred draft -

Author’s Post-print
- final draft post-refereeing -

Publisher’s version/PDF
- article published -
Self-archiving

Institutional / subject repository
- Interoperability standards
- Preservation in the long term
- Dissemination
- Persistent identifier

Personal webpage
Institutional webpage

Author rights
- Licencias Creative Commons

Publisher’s policy
- Embargo period
- Authorized version(s) of the article
- Place to deposit

Business model
- Free OA journals
- Gratis OA
- Hybrid
- Subscription
The European Research Council:

• requests that an electronic copy of any research article, monograph or other research publication that is **supported in whole, or in part, by ERC funding** be deposited in a **suitable repository immediately upon publication**. Open access should be provided as soon as possible and in any case **no later than six months after the official publication date**. For publications in the Social Sciences and Humanities domain a delay of up to twelve months is acceptable.

• strongly encourages ERC funded researchers to use discipline-specific repositories for their publications... If there is no appropriate discipline specific repository, researchers should make their publications available in institutional repositories or in centralized ones, such as Zenodo1.

• reminds ERC funded researchers that **open access fees** are eligible costs that can be charged against ERC grants, provided they have been incurred during the duration of the project.

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Beneficiary of action

Obligation to disseminate results (29.1)

To ensure OA to scientific publications relating to its results

By depositing in a repository within 6 months of publication

A machine-readable electronic copy of the paper accepted for publication (29.2)

On publication

Research data (29.3)

Preservation in the long term

Bibliographic metadata

Free of charge Online access

APC

Standardised or publicly known format
http://www.nature.com/news/funders-punish-open-access-dodgers-1.15007
Bethesda Statement on Open Access Publishing

- The organizations that foster and support scientific research
- The scientists that generate the research results
- The publishers who facilitate the peer-review and distribution of results of the research
- The librarians
- Other who depend on access to this knowledge
Statement of the Libraries & Publishers Working Group

We believe that open access will be an essential component of scientific publishing in the future and that works reporting the results of current scientific research should be as openly accessible and freely useable as possible. Libraries and publishers should make every effort to hasten this transition in a fashion that does not disrupt the orderly dissemination of scientific information.

Libraries propose to:

1. **Develop and support mechanisms** to make the transition to open access publishing and to provide examples of these mechanisms to the community.
2. **In our education and outreach activities, give high priority to teaching our users** about the benefits of open access publishing and open access journals.
3. **List and highlight open access journals** in our catalogs and other relevant databases.

Bethesda Statement on Open Access Publishing

http://legacy.earlham.edu/~peters/fos/bethesda.htm
Nothing in the last ten years makes OA less necessary or less opportune. On the contrary, it remains the case that “scientists and scholars...**publish the fruits of their research** in scholarly journals **without payment**” and “**without expectation of payment.**” In addition, scholars typically **participate** in peer review as **referees and editors** without expectation of payment. Yet more often than not, **access barriers** to peer-reviewed research literature remain firmly in place, **for the benefit of intermediaries** rather than authors, referees, or editors, and **at the expense of research, researchers, and research institutions.**

BOAI 10. Ten years on from the Budapest Open Access Initiative: setting the default to open.  
[http://www.budapestopenaccessinitiative.org/boai-10-recommendations](http://www.budapestopenaccessinitiative.org/boai-10-recommendations)
(1.7) We remind researchers that they need **not work as authors, editors, or referees** for publishers who act against their interests.
1.5. **We discourage the use of journal impact factors as surrogates for the quality of journals, articles, or authors.** We encourage the development of alternative metrics for impact and quality which are less simplistic, more reliable, and entirely open for use and reuse.

2.1. **We recommend CC-BY or an equivalent license as the optimal license for the publication, distribution, use, and reuse of scholarly work.**
3.6. When subscription-based or non-OA journals permit any kind of self-archiving, or deposit into OA repositories, they should describe what they permit in precise human-readable and machine-readable terms, under an open standard. These descriptions should include at least the version that may be deposited, the timing of deposits, and the licenses that could be attached to deposited versions.

4.1. We should do more to make publishers, editors, referees and researchers aware of standards of professional conduct for OA publishing, for example on licensing, editorial process, soliciting submissions, disclosing ownership, and the handling of publication fees. Editors, referees and researchers should evaluate opportunities to engage with publishers and journals on the basis of these standards of professional conduct.
Time for Safari!