Open Access/Open Science and the Humanities on a Cross-regional Basis

Daniel Paul O’Donnell
University of Lethbridge, Alberta Canada
Sept. 28, 2018
Elizade University, Ilara-Mokin
Thank you

- Professor Theophilus Oyeyemi Fadayomi (Chief Host)
- Professor Bankole Omotoso (Chair)
- Mr. Idowu Adegbilero-Iwari (Host)
- Faculty and Students at Elizade University
- Students at SCDLM 2018
Welcome to Wikipedia,
the free encyclopedia that anyone can edit.
5,723,786 articles in English

From today's featured article

Myst IV: Revelation is the fourth installment in the Myst series, developed by the French video game publisher Ubisoft. First released on September 28, 2004, it uses pre-rendered graphics and digital video, as in Myst III: Exile, but adds real-time 3D effects. The player is sent to question the sons and recover the daughter of Atrus, a man who creates links to other worlds by writing special linking books (Illustration shown). Development of Revelation lasted more than three years, requiring as many as eighty Ubisoft employees. The original score was written by Exile's composer, Jack Wall. Musician Peter Gabriel lent his voice and a song to the audio. Overall, reception to the game was positive, reviewers lauded the visuals, sound, and puzzles, but some took

In the news

- Ibrahim Mohamed Solih (pictured) is elected President of the Maldives.
- An attack at a military parade in Ahvaz, Iran, leaves at least 30 people dead, including the attackers.
- A Tanzanian ferry capsizes on Lake Victoria, killing at least 227 people.
- A landslide, triggered by several days of heavy rainfall, kills at least 53 people in Naga, Philippines.
- Kenyan Eliud Kipchoge runs the Berlin Marathon in world record
History of Wikipedia

- Founded in 2001 as support for the Nupedia
- 200 hundred articles in first month; 19,700 in first year (Nupedia: 21 in Y1)
- Very strong growth thereafter

<table>
<thead>
<tr>
<th>Year</th>
<th>Articles Published</th>
<th>Growth over previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>96,500</td>
<td>390%</td>
</tr>
<tr>
<td>2003</td>
<td>188,800</td>
<td>96%</td>
</tr>
<tr>
<td>2004</td>
<td>438,500</td>
<td>132%</td>
</tr>
<tr>
<td>2005</td>
<td>895,000</td>
<td>104%</td>
</tr>
<tr>
<td>2006</td>
<td>1,560,000</td>
<td>74%</td>
</tr>
<tr>
<td>2017</td>
<td>5,541,900</td>
<td>4.5%</td>
</tr>
</tbody>
</table>
History of Wikipedia

- In fact near exponential growth for first 5 years
History of Wikipedia

- In fact near exponential growth for first 5 years
- Changing to relatively consistent linear growth since (with some caveats)
  - Number of articles
    - (250-300k/year)
History of Wikipedia

- In fact near exponential growth for first 5 years
- Changing to relatively consistent linear growth since (with some caveats)
  - Number of articles (250-300k/year)
  - Number of editors with 100+ edits (about 4k)
History of Wikipedia

- In fact near exponential growth for first 5 years
- Changing to relatively consistent linear growth since (with some caveats)
  - Number of articles (250-300k/year)
  - Number of editors with 100+ edits (about 4k)
  - Total file size (about 1GB/year)
History of Wikipedia

● More important than growth is reliability and use
  ○ Most famous study in Nature (2005) compared Wikipedia to Encyclopedia Britannica
    ■ Found average of 4 errors/article in Wikipedia;
    ■ 3 in Britannica
    ■ 4 “serious” errors each in 42 articles reviewed
  ○ Number of similar studies over the years (Look it up in Wikipedia: “Reliability of the Wikipedia”)
History of Wikipedia

- Also the practical endorsement we give it daily
  - Not everybody knows the accuracy studies
  - Almost everybody with an internet connection uses it
- Even if you don’t, nearly everybody who impacts you does
  - Journalists
  - Politicians
  - Friends and colleagues
  - Keynote speakers
Wikipedia and Social Media/Web 2.0

- Wikipedia is one of the earliest of a group of websites/platforms/applications that developed in the early-to-mid oughts.
- All had similar early growth patterns to Wikipedia.
- All except MySpace and Twitter show continuing growth.

<table>
<thead>
<tr>
<th>Platform</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wikipedia</td>
<td>2001</td>
</tr>
<tr>
<td>MySpace</td>
<td>2003</td>
</tr>
<tr>
<td>Facebook</td>
<td>2004 (Harvard); 2006 (Everybody)</td>
</tr>
<tr>
<td>YouTube</td>
<td>2005</td>
</tr>
<tr>
<td>Twitter</td>
<td>2006</td>
</tr>
</tbody>
</table>
Wikipedia and Social Media/Web 2.0

- All had a profound, immediately visible, and lasting impact on our day-to-day lives
  - Even if you don’t use them, *many* others do
  - People build publicity campaigns around them
  - Use them instead of letters
  - Share pictures, etc.
Time Magazine and “You”

- Time Magazine made “You” (the Social Media Participant) its 2006 “Person of the Year”
- Primarily a good news story:
“But look at 2006 through a different lens and you'll see another story, one that isn't about conflict or great men. It's a story about community and collaboration on a scale never seen before. It's about the cosmic compendium of knowledge Wikipedia and the million-channel people's network YouTube and the online metropolis MySpace. It's about the many wrestling power from the few and helping one another for nothing and how that will not only change the world, but also change the way the world changes.”
Social Media/Web 2.0 Now

- With exception of Wikipedia, this rosy view not shared widely any more
- On the one hand
  - Most of us use Facebook, YouTube, Whatsapp, Instagram, Twitter, etc.
  - (And are influenced by those who do even if we don’t)
  - And it’s fair to say that these have improved our lives
    - Easier contact with family and friends
    - Easier to share news
    - Easier to maintain distant relationships
Social Media/Web 2.0 Now

- But
  - We are also now more aware of the dangers and downsides to Social Media
  - Much less altruistic than originally thought
    - Few would share Time’s view that they are primarily good for “Wrestling power from few and helping one another for nothing”
    - They *increase* tribalism, division, spread of rumours, bullying
- A cover story today would focus much more on negative aspects than their function as a modern *agora*
Social Media/Web 2.0 Now

- In contrast to Time’s vision of the masses using Social Media to wrest control from the elites
- We increasingly think it needs to be controlled
  - Moderated comment sections
  - Filters and reporting policies for harassment
  - Control to stop the spread of dangerous rumours and fake news
  - Still lacking way of controlling bullying and mob behaviour
Social Media/Web 2.0 Now

- In other words, with exception of Wikipedia
  - Social Media has failed to live up to its initial expectations
Open Scholarly Communication

- History of Open Scholarly Communication (OSC) is similar to that of Social Media
  - Immense promise followed by lesser results
Open Scholarly Communication

- History of Open Scholarly Communication (OSC) is similar to that of Social Media
  - Immense promise followed by lesser results
- What I’d like to do in the rest of this talk is to discuss what we can learn from Wikipedia to stop this
History of Open Scholarly Communication

- World Wide Web invented to promote OSC
- Created at CERN by Tim Berners-Lee to assist the free dissemination and management of Scientific and Technical Documentation
- Original title of proposal: “Information Management: A Proposal”
- Schol Comm only industry mentioned in proposal
History of Open Scholarly Communication

- As was true of Social Media, power and possibility were immediately recognised
  - Free digital journals actually predate the Web (which was in part a response to them)
  - Some were circulated in the original tarball with the WWW
  - Use of the new technology for Scholarly Publication mirrored growth of web

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scielo</td>
<td>1997</td>
</tr>
<tr>
<td>PLoS</td>
<td>2000</td>
</tr>
<tr>
<td>Creative Commons</td>
<td>2001</td>
</tr>
<tr>
<td>Open Archives Initiative</td>
<td>2001</td>
</tr>
<tr>
<td>Budapest OA Initiative</td>
<td>2002</td>
</tr>
<tr>
<td>Berlin Declaration</td>
<td>2003</td>
</tr>
</tbody>
</table>
History of Open Scholarly Communication

- In fact rationale for promise was very similar
  - Internet technology would remove rent seeking behaviour from Scholarly Comm
  - Create opportunity for Scholars, Scientists, and Citizens to help each other for free
History of Open Scholarly Communication

- In fact rationale for promise was very similar
  - Internet technology would remove rent seeking behaviour from Scholarly Comm
  - Create opportunity for Scholars, Scientists, and Citizens to help each other for free

“It's a story about community and collaboration on a scale never seen before... It's about the many wrestling power from the few and helping one another for nothing and how that will not only change the world, but also change the way the world changes.”
History of Open Scholarly Communication

- System would vitiate legacy incentive systems and the colonial inequities that favoured Northern, Western, and English-Language science and scholarship
- No reason why dominant voices would have to be those favoured by Northern Publishers and institutions
- “Long tail” meant that regional interests and voices could be heard
History of Open Scholarly Communication
History of Open Scholarly Communication

- In actual practice, OSC has not lived up to expectations (though not as spectacularly as Social Media)
  - Not proven as popular as people thought it would be with Scientists and Scholars
  - Not shown the kind of growth as Social Media
    - In 2015 about 28% of articles were Open Access
    - Growth has be slow (but may be speeding up)
History of Open Scholarly Communication
History of Open Scholarly Communication

- But most disturbing, it hasn’t stopped the rent-seeking and perverse incentives from pre-web publication
  - Big five have begun to co-opt OSC to increase power and profit
  - Has not produced a long-tail effect (or a minimal one)
    - People still seek access to major Northern Journals
    - Still publish on issues of Northern Interest
    - Still predominantly in English
- If anything, Web has increased ease-of-use for some of the more perverse
  - Citation count over use (now H-Index, Impact Factor, etc)
  - Increased importance of core journals (especially in Global South)
    - E.g. Bounties
History of Open Scholarly Communication
So what to do?

- Time to think about why the Wikipedia has lived up to promise of Social Media in ways that other apps didn’t
- Perhaps the lessons can be applied to Open Scholarly Communications
Why did Wikipedia succeed?

- It is a community rather than a platform
- It has an organisation structure with mechanisms for enforcement of communal norms and goals
- Its participants are ideologically committed to goal of project (and there’s a method for getting rid of or controlling those who aren’t)
- It is positive not oppositional (i.e. it didn’t set out to destroy Britannica, just be something else)
How can this be applied to OSC?

- Need to rethink what we are doing
  - See it as an ideological commitment/community rather than an economic model (i.e. OSCers similar to “Wikipedians”)
    - i.e. as a way of doing new things rather than old things in a different way
  - Think through how the system can be curated (how does the community restrict bad actors, reward good ones)
  - Value what we are doing on its own terms rather than for its value in defeating something else
Ideological Commitment

- Scholarly Commons/Future Commons project ([http://scholarlycommons.org](http://scholarlycommons.org)) is an attempt to “Operationalise Conviction”
  - I.e. stop assuming that people can be economically seduced into OSC and instead focus on using their ideological commitment to Open Science
- Developed principles to describe best practice (and rules to carry them out) that people (and entities such as publishers and tool makers) can ascribe to
- Treat Openness as a virtue in its own right (like the Wikipedia) rather than a cheap way of getting scholarship
## The three principles of the Scholarly Commons:

<table>
<thead>
<tr>
<th>Principle</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>P0.</strong> The Scholarly Commons is an agreement among knowledge producers and users.</td>
<td>This means that:</td>
</tr>
<tr>
<td></td>
<td>The commons is developed by its members through their practice</td>
</tr>
<tr>
<td></td>
<td>There is global commitment and participation in the commons' long-term viability and preservation</td>
</tr>
<tr>
<td><strong>P1.</strong> Research and knowledge should be freely available to all who wish to use or reuse it</td>
<td>This means that:</td>
</tr>
<tr>
<td></td>
<td>The commons is open by default</td>
</tr>
<tr>
<td></td>
<td>Content in the commons is FAIR: findable, accessible, interoperable &amp; reusable by humans/machines</td>
</tr>
<tr>
<td><strong>P2.</strong> Participation in the production and use of knowledge should be open to all who wish to participate</td>
<td>This means that:</td>
</tr>
<tr>
<td></td>
<td>The commons welcomes and encourages participants of all backgrounds</td>
</tr>
<tr>
<td></td>
<td>The commons is open to all participants who accept its principles</td>
</tr>
</tbody>
</table>
And the three rules to effect these principles:

<table>
<thead>
<tr>
<th>Rule</th>
<th>Description</th>
<th>This means that</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1.</td>
<td>Rewards for participating in the commons are access, opportunity and attribution</td>
<td>Provenance of objects in the commons should be transparent and persistent</td>
</tr>
<tr>
<td>R2.</td>
<td>The commons is agnostic regarding form and technology</td>
<td>The commons exists independently of technology, funding &amp; business models that support and enable it</td>
</tr>
<tr>
<td>R3.</td>
<td>(Use of) external systems or technology, incl. reward systems, must not harm the commons</td>
<td>The form research is disseminated in is determined by the needs of the research itself</td>
</tr>
</tbody>
</table>
And the curation?

- An ideal role for the (Scholarly Communications) Librarian
  - A group that understand the issues at stake
  - Can devote attention to meta issues (unlike the domain researchers)
  - Can advice, encourage, and excite others
- *Not* a policing role
  - Nobody ever wrote a (good) Wikipedia article because they were forced to;
  - Many have been written by enthusiasts who were committed to project;
  - Quality is maintained by the real enthusiasts
And the curation?

- Play a positive role
  - Develop the tools to promote Open Science
    - Institutional Repositories--and especially routes to publish to institutional repositories
  - Work with Deans, VC-Research, and others on OSC neutral (or supportive) reward structures
  - Get up-to-date on the latest trends and opportunities
And the curation?

- Actively promote development of local publication mechanisms
  - Blogging
  - Publishing
  - Educational opportunities
  - New venues and methods of publication
  - Reputation management (show faculty it is worth their while)
Conclusion

- Wikipedia vs. other Social Media provides useful model (and anti-model) for the successful growth of new forms of WWW-enabled communication
- When they work well, they can live up to their original promise
- When they don’t, they can do harm
- OSC is at an inflection point
  - We know enough to say that it isn’t (yet) living up to promise
  - But we can also see ways of fixing things
- Good OSC is going to require ideological commitment, curation, and opportunity to succeed
- This is something we all can help with, but especial SC Librarians!
Thank you!

daniel.odonnell@uleth.ca