

open library environments

UKSG April 2011

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Preamble

This is not an attempt to deal comprehensively with all the 'open' aspects of library environments. The recent 2011 JISC conference and other UKSG presentations have dealt with a number of aspects of 'open' in more detail. I want to pick at just a few threads of the overall tapestry and in particular discuss **motivations** and **business models**

the thing about open is...

OPEN INNOVATION

The New Imperative
For Creating and Profiting
From Technology

A shift in the innovation paradigm:

closed innovation says that successful innovation **requires control**. Companies must generate their own ideas and then develop them, build them market them..etc

'Open Innovation: The new imperative for creating and profiting from technology.'
By Henry Chesbrough . Harvard Business School Press. 2003

OPEN INNOVATION

The New Imperative
For Creating and Profiting
From Technology

A shift in the innovation paradigm:

open innovation assumes that firms can and should use external as well as internal ideas. Open innovation assumes that **internal ideas can be also be taken to market through external channels**

'Open Innovation: The new imperative for creating and profiting from technology.'
By Henry Chesbrough . Harvard Business School Press. 2003



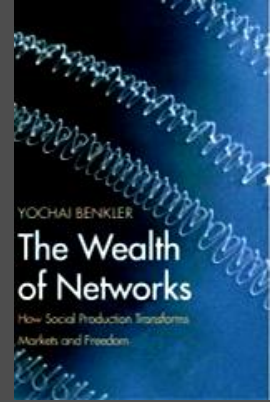
'Open source software provides one example where openness is creating significant value, a portion of which is captured by the firm, via a business model built around open source'.

'Open Business Models. How to thrive in the new innovation landscape' By Henry Chesbrough. Harvard Business School Press. 2006

OpenBusiness is a platform for the exploration and analysis of business trends accelerated by the **dis-intermediating power of the Internet**. Areas covered range from Open Source Software, Web 2.0, Crowd Sourcing, Co-Creation to Open Innovation.

<http://www.openbusiness.cc/about/>

'social production'



'one of the aspects of this new economy is the rise of a new 'mode of production' -- 'social production'.

'enabled by cheap computing and fast pervasive networks people are giving their time individually or in collaboration with others to produce goods for free'.

social production

Before the cost of communication dropped precipitously, Benkler suggests that it was too expensive to have a decentralized social production exchange system.

Today however, citing open source projects such as SETI@home and Apache, he makes the claim that **social sharing and exchange is emerging as a significant and sustained factor of production.**

Social production as a new source of economic value creation

<http://opensource.com/business/10/2/social-production-new-source-economic-value-creation#comments/>

social production

Social production creates a new form of competition for firms who operate in the centralized market-based framework.

- * Peer-to-peer file sharing is competing with the recording industry
- * Free and open source software is competing with traditional IT companies
- * IP telephony is competing with traditional telecom industry

Benkler argues that social production is not a fad; it is a fact. While it does represent a new form of competition for incumbents, it also represents **a new source of opportunity for everyone**

Social production as a new source of economic value creation

<http://opensource.com/business/10/2/social-production-new-source-economic-value-creation#comments/>

" higher education will be affected in one way or another by what are truly **transformational changes in the way knowledge is created and disseminated**. Now that increasing numbers of universities, including some of the most prestigious, are using technology to let the world into their precincts, **it will never again be possible to lock the gates.**"-

from the foreword by William G. Bowen, president emeritus, Andrew W. Mellon Foundation and Princeton University

UNLOCKING THE GATES

*How and Why Leading Universities Are
Opening Up Access to Their Courts*



TAYLOR WALSH

`..it appears that there is a mix of trends circling around **cloud computing, open source software, e-science, digital humanities, and open data** that all point to a shift in how libraries define and provide services. Although still in it's early stages, distributed computing models have already seen widespread adoption in libraries and are positioning our organizations to change how we approach service

'Understanding the impact of open and distributed computing'. By Erik Mitchell .Blog 7 January 2011 . <http://www.erikmitchell.info/2011/01/07/understanding-the-impact-of-open-and-distributed-computing/>



The aim of EOS is to further the opening up of scholarship and research that we are now seeing through the growing open access, open education, open science and open innovation movements.

These, and other, 'open' approaches to scholarship are changing the way research and learning are done and there are **profound implications for universities and research institutions.**

http://www.openscholarship.org/jcms/j_6/home

what's so good about open...?

what's so good about open
data

factors that make open data attractive



unlocking innovation

'Advised by Sir Tim Berners-Lee and Professor Nigel Shadbolt and others, government is opening up data for reuse'.

factors that make open data attractive

'Open data provides a platform on which **innovation and value generation can flourish**. If governments publish their data and get out of the way, the applications that people want will emerge'

'Open for Business' By Nigel Shadboldt. Open Knowledge Foundation Blog. 3rd April 2011 <http://blog.okfn.org/2011/04/03/open-for-business/>

factors that make open data attractive

'letting the data go enables **value to be built at scale**'

'Open for Business' By Nigel Shadbolt. Open Knowledge Foundation Blog. 3rd April 2011 <http://blog.okfn.org/2011/04/03/open-for-business/>

factors that make open content attractive

'Open data can reduce integration costs, improve transparency and harness the innovation of others.'

If you release your data then others will develop applications that make best use of it – providing new services that benefit you directly, like all of those free travel apps that the travel companies didn't have to write, but which nevertheless drive people onto the transportation network'.

'Open for Business' By Nigel Shadbolt. Open Knowledge Foundation Blog. 3rd April 2011
<http://blog.okfn.org/2011/04/03/open-for-business/>

what's so good about open
content?

factors that make open content attractive

What was once a system of open and shared scholarly communication, owned and managed by the academy and associated scholarly societies, has transformed into a 'Closed Access' model where ownership resides largely outside the academy in the hands of commercial companies and with the scholarly research record quarantined behind access-barriers that only those who have the money to pay for subscriptions, licences or purchases can traverse.

http://www.openscholarship.org/jcms/j_6/home



factors that make open content attractive

'to enable faculty, students, staff and others to **share their educational resources** and research with the global learning community'.

Open.Michigan encourages researchers, learners, and instructors to maximize the impact and reach of their scholarly work through open sharing

'Reaching the Heart of the University: Libraries and the Future of OER. Presented at the Open Education 2010 Conference, Barcelona.2-4 November 2010. By Pieter Kleymeer, Molly Kleinman and Ted Hanss

<http://deepblue.lib.umich.edu/bitstream/2027.42/78006/1/ReachingtheHeartoftheUniversity-KleymeerKleinmanHanss.pdf>

factors that make open content attractive

Academic OER initiatives and university libraries share a determination to **improve access to all kinds of scholarly and educational materials**, both on their campuses and throughout the world. Given those dovetailing values, partnerships between OER initiatives and libraries seem not just logistically convenient but philosophically obvious.'

'Reaching the Heart of the University: Libraries and the Future of OER. Presented at the Open Education 2010 Conference, Barcelona.2-4 November 2010. By Pieter Kleymeer, Molly Kleinman and Ted Hanss

<http://deepblue.lib.umich.edu/bitstream/2027.42/78006/1/ReachingtheHeartoftheUniversity-KleymeerKleinmanHanss.pdf>

what's so good about open
software?

factors that make open source software attractive

'lower costs and improve software
quality'

'The cathedral and the bazaar.' Eric Raymond. O'Reilly. Rev. edition 2001

factors that make open source software attractive



North Bridge Venture Partners Future of Open Source survey 2010

factors that make open source software attractive

'**low cost** has helped open source endure the economic downturn and emerge even healthier. For the third year, survey respondents said that low costs are the most attractive aspect of open source technology'.

factors that make open source software attractive

"**rapid innovation**" is perhaps the most exciting new driver we identified. Buyers now specifically recognize that open source delivers innovation faster than proprietary software - a significant competitive advantage in a today's challenging business environment..... Without the burden of a long product development cycle, **open source software can create and release new features immediately by the people and organizations that need them.**

factors that make open source software attractive

We are convinced that collaborative efforts to build open source applications can produce software that **better meets the needs of partner institutions** and also has the potential to benefit the broader community, should these efforts attract an expansive base of contributors over time.

This belief is largely founded on the hope of **overcoming the historical disconnect between producers of software and HE users**, who have complex, unique, and poorly understood needs.

factors that make open source software attractive

In conclusion, we have found that there is good reason to believe **that some market failure is taking place** in the realm of administrative systems and that there is a real opportunity for the community to pursue a world with more effective and cost efficient solutions and a more robust marketplace.

Software and Collaboration in Higher Education: A Study of Open Source Software.' By Paul N. Courant & Rebecca J. Griffiths. 26 July 2006

factors that make open source software attractive

The fundamental purpose of open source licensing is to *deny* anybody the right to *exclusively* exploit a work

Taken from 'Understanding Open Source & Free Software Licensing'. By Andrew M St Laurent. O'Reilly. 2004

business models

open data
business models

Keeping Open Data open and free of charge is an important part of this model:

- It brings a user base to the site that may at some point turn into subscribers, either to the pro account or some of the premium data
- It means that users have plenty of free content to realize the value of our tool and know what to expect if they buy into it
- It makes the public sector data providers far more positive to our approach than if we'd be hiding their data behind a paywall.

I'll tell anybody, and in fact I've told our investors repeatedly that I'm not sure if we've yet found exactly the right model.

'The Business of Open Data' By Hjalmar Gislason. Open Knowledge Foundation blog. 6 July 2010
<http://blog.okfn.org/2010/07/06/the-business-of-open-data/>

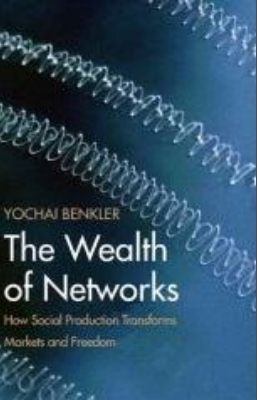
Data that is open and free to begin **with will still be open** and free on DataMarket, **just easier to find and use....**

The business model we're imposing on top of this two-fold:

1. Some features of the system, such as personal dashboards, scheduled email reports and API access is only available to paying subscribers.

2. Access to premium data, such as market research, financial market data and analyst forecasts is sold for a fee. As the company name implies, this is a market for data, even though a lot of the "merchandise" is free of charge.

open software
business models



'[Open source] ...the quintessential instance of peer production'

professional services/consulting and support remain the most lucrative business strategies for vendors



'Open source became big business in 2009' By Matt Asay. CNET News website. 26 December 26 2009.
http://news.cnet.co.m/8301-13505_3-10422013-16.html

open content
business models

'[open access] a practical, efficient and sustainable model to unlock the potential of the web for disseminating the results of publicly funded research'



Heading for the open road: costs and benefits of transitions in scholarly communications

April 2011

Commissioned by:



This new report investigates the drivers, costs and benefits of potential ways to increase access to scholarly journals. It identifies five different routes for achieving that end over the next five years, and compares and evaluates the benefits as well as the costs and risks for the UK.

http://www.rin.ac.uk/system/files/attachments/Dynamics_of_transition_for_screen.pdf

| Scenario | Summary Description |
|-------------------|--|
| Green Open Access | <p>Increased deposit rates of accepted manuscripts into institutional and discipline-based repositories driven by enforcement of mandates by funders (globally) (40-60% deposit rates depending on discipline) and UK, US and European research institutions (15-30% deposit rates).</p> <p>We consider two variants of this scenario which show the impact of moving from the existing world and one assuming a theoretical world in which Green OA did not already exist, 'Zero').²</p> |
| Delayed Access | <p>A significant increase – to 40% – in the number of publishers providing free access to the version of record for 65% of the articles on their websites, following an embargo period. Embargoes are set in relation to the readership 'half-life' and are assumed to be 12 months (biomedical); 24 months (science & technology); 36 months (arts & humanities).</p> |
| Gold Open Access | <p>Increased proportion of articles published with author-side payments leading to immediate access to the version of record. Applicable globally and to all disciplines as follows: biomedical (40%); science & technology (15%); arts & humanities (5%).</p> <p>We consider two variants of this scenario, to show the impact of a higher or lower level of article processing charges (APCs).</p> |
| Licence Extension | <p>Increased access to the version of record achieved through national licence extensions to the (i) HE sector, with 50% of larger publishers agreeing licence extension for all HEIs, covering 75% of articles; and (ii) NHS, with 30% of relevant (i.e. primarily biomedical) publishers participating, covering 55% of relevant articles.</p> |
| Transactional | <p>Increased access focused on targeted user groups (e.g. SMEs, independent researchers and professionals). Access to the version of record at the point of publication. Primary access expected to be via aggregating sites. A pay-per-view (PPV) price of \$10 is considered.</p> |

Many OER initiatives have obtained “seed resources” from private foundations and public authorities. The financial sustainability of these projects in the long term is a key issue. In general, the social **value of knowledge and information increases to the degree that they can be shared with, and used by, others**. But at the moment, the individual institution providing OER has to bear the costs of providing social benefits on a global scale. Many institutions are not able to do this, especially if seed money runs out.

The key issue is to find the right balance between “open material to all with no control” and “open to no one”.

<http://www.oecd.org/dataoecd/1/49/36243575.pdf>

Digital Rights Management (DRM)

'We're delighted when people who can't afford our books don't pay us for them, if they go out and do something useful with that information'

(O'Reilly has dropped digital rights management (DRM) for ebooks -so no limits on file sharing and copying. Not worried about piracy)

<http://blogs.forbes.com/jonbruner/2011/03/25/tim-oreilly-on-piracy-tinkering-and-the-future-of-the-book/2/>

(free) content business models

would these work for universities/libraries?



How today's smartest
businesses profit by giving
something for nothing

'Turn traditional economics
upside down'

1. Give away content sell access to the audience
2. Give away scientific articles, charge authors to publish them
3. Give away content, sell information about the customers
4. Give away content, charge advertisers to be featured in it

challenges

challenges: social production

Benkler argues that social production is not a fad; it is a fact. While it does represent a new form of competition for incumbents, it also represents a new source of opportunity for everyone. The question he leaves us with, and the one that I believe opensource.com is meant to explore, is this:

How will this new model of social production develop alongside the traditional industrial information economy?

Social production as a new source of economic value creation

<http://opensource.com/business/10/2/social-production-new-source-economic-value-creation#comments/>

challenges...open source

Accenturefound that **just 29 per cent of organisations are willing to share their own developments** with the rest of the community.

Despite the positive predictions...the survey found that **lack of senior management support** was the main reason for open source software being evaluated and then rejected.

Furthermore, 35 per cent of respondents said that the main challenge to its adoption was the **training developers require to use open source.** for concern in the US.

challenges: open content

Just because its open doesn't mean it gets (re) used

'The key to everything is reuse, at least reuse broadly envisioned.....the key metric is not how many toothbrushes you distribute, but ultimately how much they were used, and, one metric beyond that, what impact they had on community health.'

'Much of the best sharing and reuse has nothing to do with traditional OER. Look at the reuse of ConcepTest questions in Physics or Earth Science, or the amount of reuse of Focusing Questions for POGIL practice in Chemistry. People go to their conferences on these methodologies and talk in their online peer groups and share constantly — **because they have a common framework** and well-defined primary artefacts. Most OER projects would die to have just the amount of resource reuse in POGIL's hard science materials'.

(so sharing recipes works well because the sharers understand the 'framework' of cooking...)

'Sharing, Reuse, and Frameworks' By Mike Caulfield Tran|Script blog. 9th March 9, 2011
<http://mikecaulfield.com/2011/03/09/sharing-reuse-and-frameworks/>

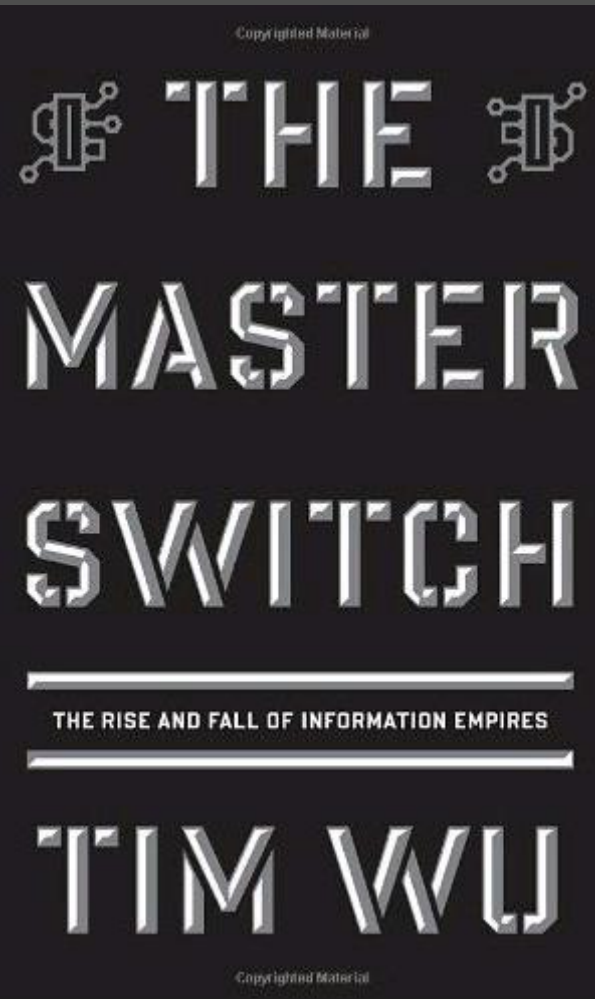
can openness survive?

'We'll pay for convenience and reliability, which is why iTunes can sell songs for 99 cents despite the fact that they are out there, somewhere, in some form, for free. The iTunes toll is a small price to pay for the simplicity of just getting what you want'

'The Web Is Dead. Long Live the Internet'. By Chris Anderson and Michael Wolff 17th August 2010 Wired September 2010 edition.

http://www.wired.com/magazine/2010/08/ff_webrip/all/1

can openness survive?



"the Cycle", with its progression "from somebody's hobby to somebody's industry; from jury-rigged contraption to slick production marvel; from a freely accessible channel to one strictly controlled by a single corporation or cartel – from open to closed system. It is a progression so common as to seem inevitable,."

<http://www.guardian.co.uk/books/2011/apr/02/master-switch-tim-wu-review>

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Helping libraries to be more effective

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