

disrupting libraries

Cambridge University Library
lunchtime talk
29th September 2009

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the issue: conventional libraries have been, and are being disrupted by innovative services from outside the traditional library domain. These services have substantially grown the total 'library' market but have taken 'market share' away from conventional libraries. Consumers like the new services and often prefer them to the services offered by 'conventional' libraries

a discussion in 7 parts...

Preamble — some context

PART 1 disruptive vs. sustaining innovation

PART 2 disrupting library *systems*

PART 3 disrupting *libraries*

PART 4 disrupting *librarians*

PART 5 some responses from the library domain

PART 6 thinking disruptively

PART 7 acting disruptively

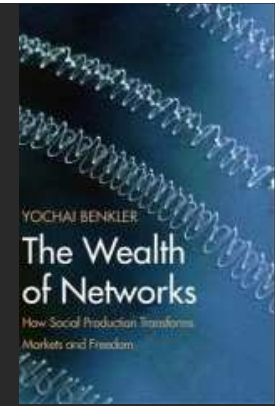
PREAMBLE

(and a bit of a reminder from my presentation at
libraries @cambridge 2008)

the wider (disruptive) context

'For more than 150 years, modern complex democracies have depended in large measure on an industrial information economy.....In the past decade and a half we have begun to see a radical change in the organisation of information production. **Enabled by technological change**, we are beginning to see a series of economic, social and cultural adaptations that make possible a **radical transformation** of how we make the information environment....'

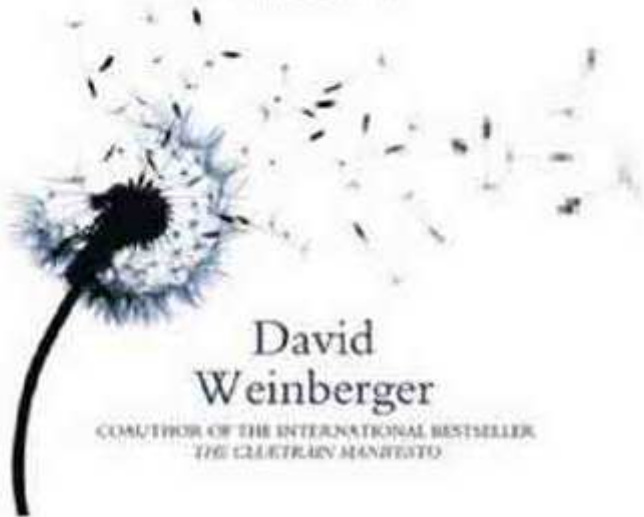
Yochai Benkler a Professor of Law at Yale Law School



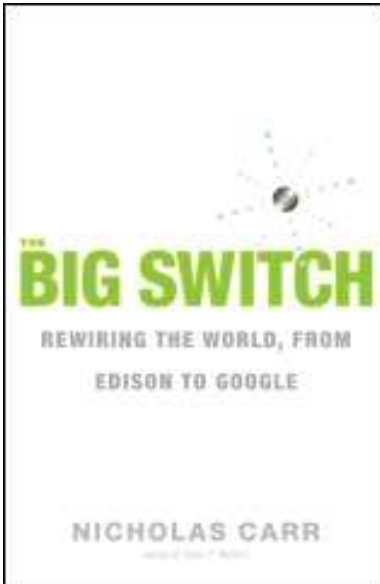
Everything Is Miscellaneous

THE POWER OF THE
NEW DIGITAL DISORDER

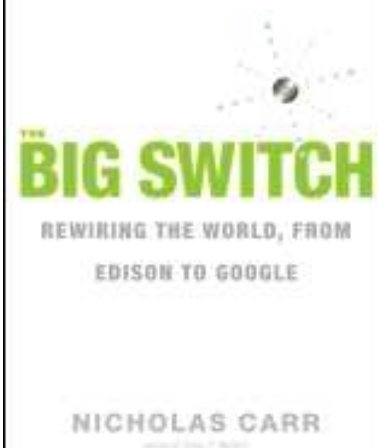
"Perfectly placed to tell us what's really new
about the second-generation Web."
—*Los Angeles Times*



'knowledge has been shackled to the physical. Now that the digitising of information is allowing us to go beyond the physical.....the shape of our knowledge is changing'. [P 71]



'cheap, utility-supplied computing will ultimately change society as profoundly as cheap electricity did'

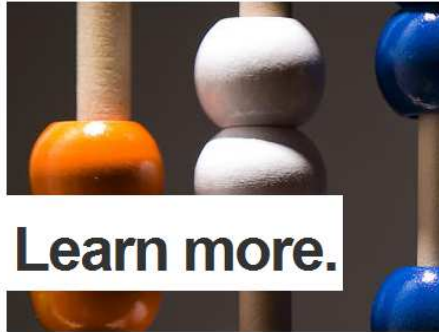


'with less than 10 people [Flickr] had millions of users generating content, **millions of users *organising* that *content* for them**, tens of thousands of users distributing that across the internet...'

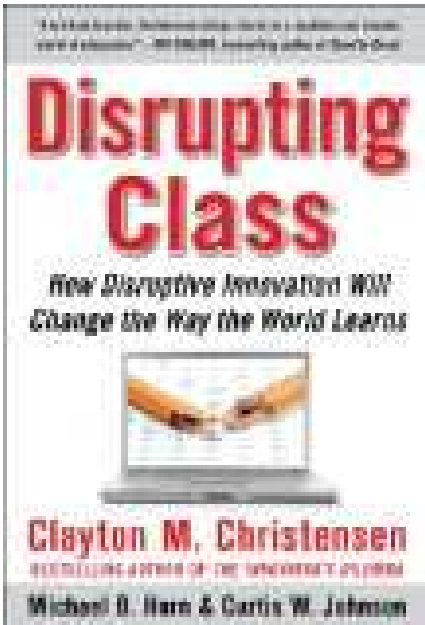
(isn't organising content what libraries are there for?)

disrupting education

school of
everything



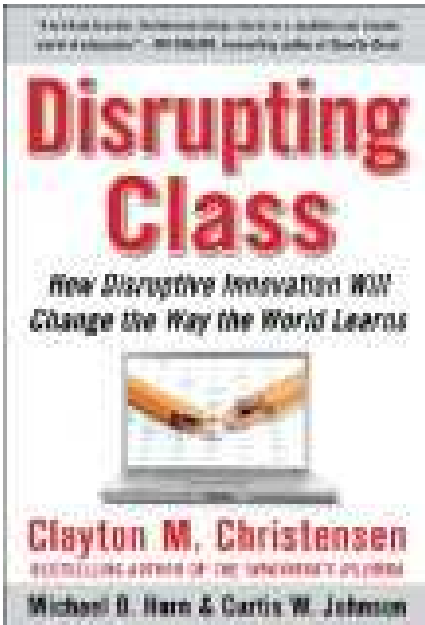
'nobody likes being told what to do. *School of Everything* is here so you can organise your education however you please'



disrupting schools

DISRUPTING CLASS

How Disruptive Innovation Will
Change the Way the World Learns



'..this will happen in approximately 2014 when online courses have a 25% market share in high schools...'

the edgeless
university
why higher
education
must embrace
technology

Peter Brabeck

DEMOS

disrupting universities

'Universities are now just one source among many for ideas, knowledge and innovation. **That seems to threaten their core position and role,** but in this new world of learning and research, there are also great opportunities. The internet, social networks, collaborative online tools that allow people to work together more easily and open access to content are both the cause of change for universities, and a tool with which they can respond'.



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Help build the future of Wikiversity and its sister projects!
Read a letter from Jimmy Wales and Michael Snow. [\[Hide\]](#) [\[Help us with translations!\]](#)

[Why create a Wikiversity account?](#)

Wikiversity:Main Page

Welcome to Wikiversity
Set learning free
with 11,467 learning resources and growing.



"Knowledge grows when shared." -Bhartrihari (discuss)

Welcome

Wikiversity is a Wikimedia Foundation project devoted to [learning resources](#), [learning projects](#), and [research](#) for use in all levels, types, and styles of education from pre-school to university, including professional training and informal learning. We invite [teachers](#), [students](#), and [researchers](#) to join us in creating [open educational resources](#) and [collaborative learning communities](#). To learn more, try a [guided tour](#) or [start editing now](#).

'set learning free?

...we invite teachers, students, and researchers to join us in creating open educational resources and collaborative learning communities'



Wikiversity is for learning. It is a place where you'll find free learning materials and learning projects. Everyone can participate. **There is no cost**, no advertising, and no credentials required. No degrees are awarded — just learning.

Everyone can create and revise teaching materials. Anyone can participate in the learning activities. Everyone can take a course. Everyone can teach a course. There are no entrance requirements and no fees. All content in Wikiversity is written collaboratively, using wiki software, and everyone is welcome to take part through using, adding and discussing content.

the edgeless
university
why higher
education
must embrace
technology

Peter Brabeck

DEMOS

'**Google** opens up vast resources to many more people, but at the same time it **undermines the role of universities as stores of knowledge.**'

BUT

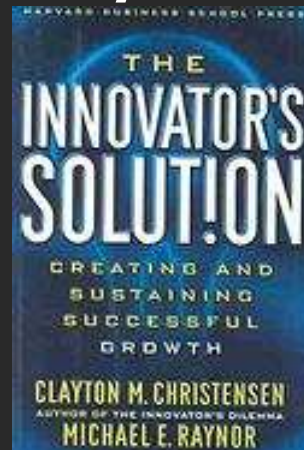
The **noise of information and knowledge needs filtering**; students need guidance and expertise. They also need the 'brand value' of institutions and the validation they provide. **Universities have to capitalise on the connections and relationships made possible by the new information technologies.**

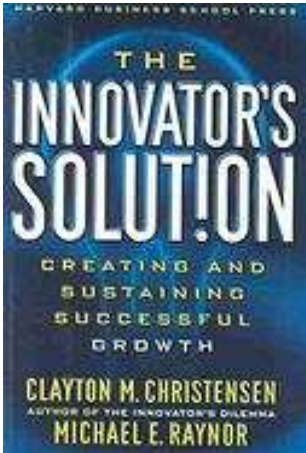
what does 'disruptive' mean in
this context?

PART 1

models of innovation

sustaining
disruptive





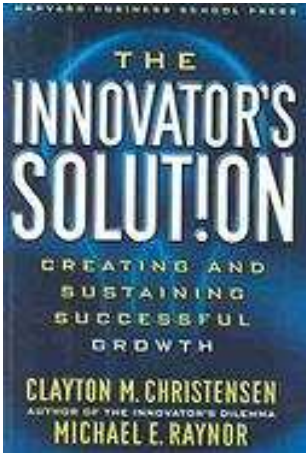
sustaining characteristics

- targets demanding high-end customers
- better performance
- incremental— year-on-year
- some innovations are breakthrough leapfrog-beyond-the-competition
- established companies [inc. organisations/institutions] almost always win

sustaining technologies

Established organizations are generally good at change that involves sustaining technologies. They know the needs of their customers and how to work with and listen to them. Service models are effective because they have been refined over long periods. **Sustaining technologies lead to improved quality that makes it possible to justify higher costs.**

'The Innovator's Dilemma: Disruptive Change and Academic Libraries.' By David W. Lewis. Library Administration & Management 18(2):68-74 Spring 2004.



disruptive characteristics

- not about better products to *established* customers
- not as good as current products
- ..but simpler, more convenient, less expensive, to *less demanding* customers
- **entrant companies [inc. organisations/institutions] can win**

disruptive technologies

Established organizations generally fail when change involves disruptive technologies, and organizations at the periphery or from different sectors most often succeed.

'The Innovator's Dilemma: Disruptive Change and Academic Libraries.' By David W. Lewis. Library Administration & Management 18(2):68-74 Spring 2004.



disrupts.





a disruptive product or service.... e.g. the Flip camera

it targets **market** segments **unattractive (initially) to incumbent providers**

it targets users who previously lacked money or skill to use mainstream products. These are the people that were conventionally thought of as '**non-consumers**' for this type of product.

It is '**good enough**' for low-end consumers They don't need a 'fully feature' product

it has a significant **cost** advantage

it targets **under-served needs**

It is **simpler and more convenient** to use than 'mainstream' products

disruption is **positive**. Customers
like new disruptive products and
services

PART 2

is the *library systems* market
being disrupted?

A: yes

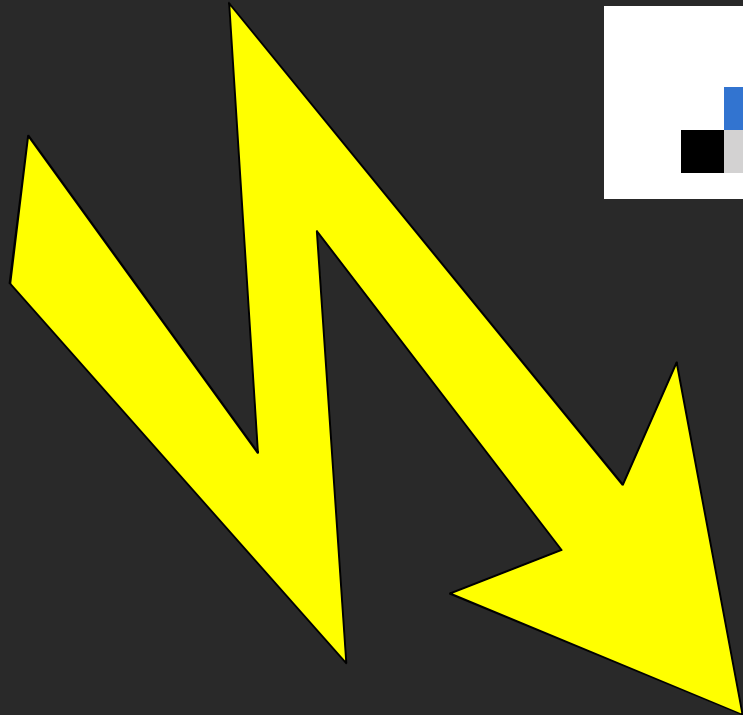
GoogleTM
Scholar BETA

amazon.com.

LibraryThing



delicious



characteristics of a market ripe for disruption

- undifferentiated products where price is a main criterion
- a market full of M&A
- functionally rich products (cf. MS Office)
- marginal competitors are taking market share

do these attributes apply to the
library systems market?

is it ripe for disruption?

characteristics of a market ripe for disruption

(1) undifferentiated products



flickr http://www.flickr.com/photos/banoootah_qtr/843477991/

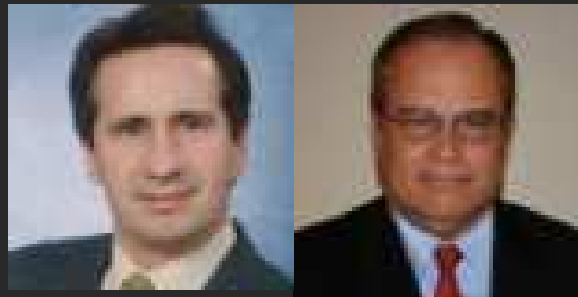
'Choosing a new ILS is a lot like choosing a rental car. . any ILS is going to get you where you need to go ...' Andrew K. Pace. 2004 ...



Dismantling Integrated Library Systems. By Andrew K. Pace — Library Journal February 1, 2004.

'It is generally agreed, even among vendors, that ILS products all basically do the same things'

The Dis-Integrating World of Library Automation. By Roland Dietz & Carl Grant. Library Journal 15th June 2005 <http://www.libraryjournal.com/article/CA606392.html>





JISC

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Glenaffric



Sero Consulting Ltd
Ken Chad Consulting Ltd
Glenaffric Ltd

JISC & SCONUL commission
evaluation & horizon scan of HE library management systems & the related
systems landscape

'A significant proportion of libraries are considering replacing their LMS in the near term. They might [re] consider the value of this approach in a **mature market with little product differentiation**'

characteristics of a market ripe for
disruption

(2) A market full of M & A



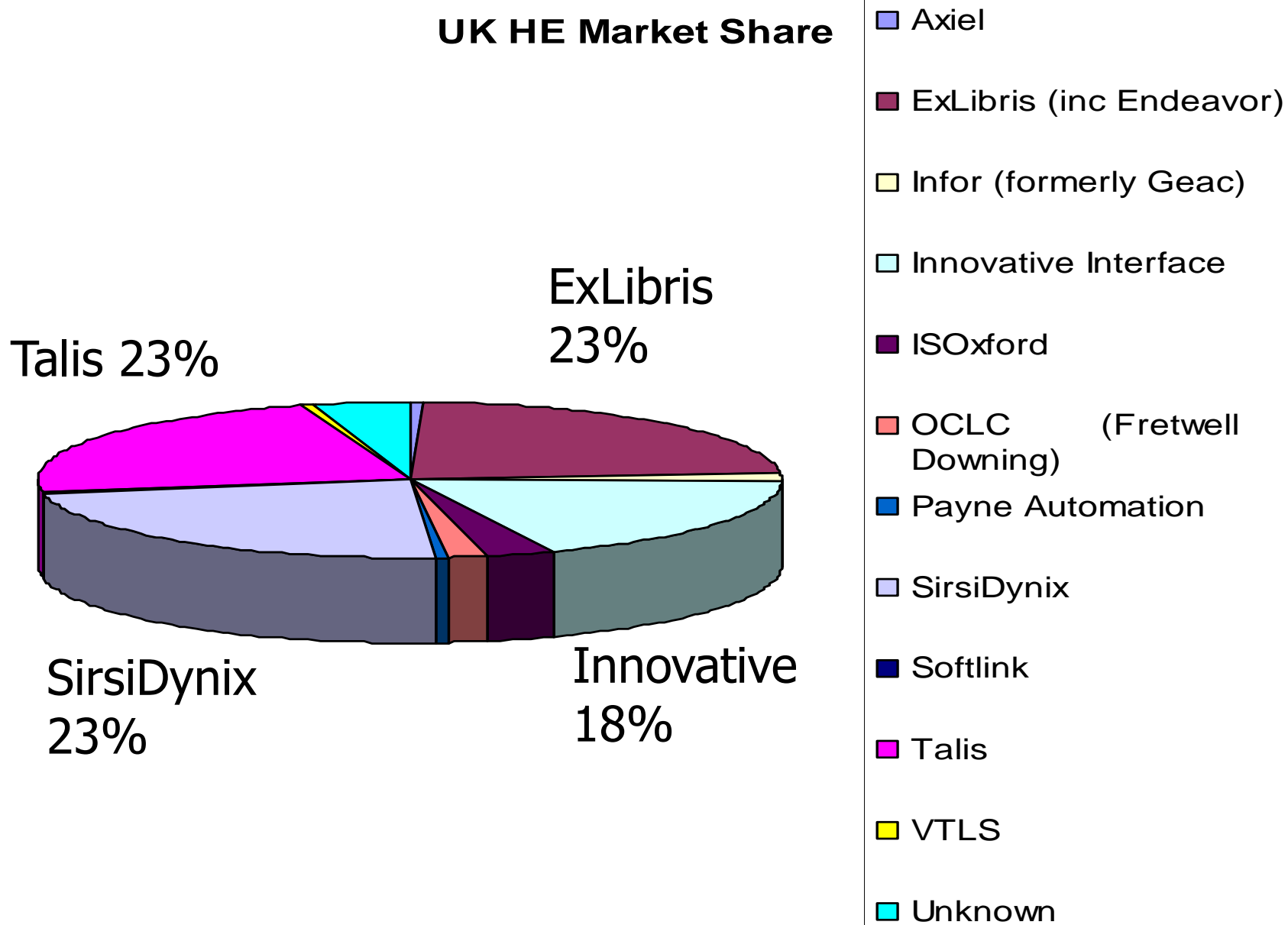
flickr

changing ownership/M&A

(everyone – almost - has changed in the
3+ years)

in UK Higher Education
four vendors have nearly 90% of the market

UK HE Market Share



characteristics of a market ripe for disruption

(3) functionally rich products



<http://www.flickr.com/photos/antmoose/19678543/>

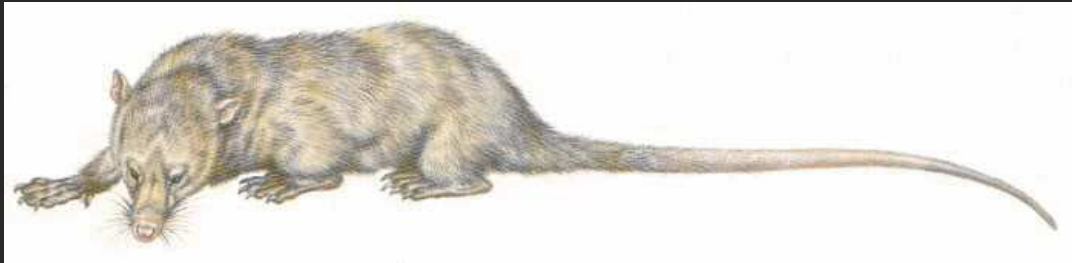


The UK **Core Specification** 'contains over **500 requirements** covering the following main functional areas'

Bibliographic database management
OPAC and end user services
Circulation control
Acquisitions
Serials control
Document delivery and inter-library loans
Management information

characteristics of a market ripe for
disruption

(4) marginal competitors taking market
share





'open source systems such as Koha and Evergreen have entered the marketplace as *routine* options. '

'Investing in The Future: Automation Marketplace 2009. By Marshall Breeding. Library Journal, 1st April 2009. <http://www.libraryjournal.com/article/CA6645868.html>



As [#biblios.net](#) Emerges, a New Opportunity for Catalogers (and Competition with OCLC)?

Norman Oder -- *Library Journal*, 1/27/2009

- New open source metadata tool
- Hosted database of free records
- Competition with OCLC?

As OCLC and its central role in the library cataloging world has become a subject of [much discussion](#), LibLime has brought an open source approach to cataloging, debuting [#biblios](#), an open-source, web-based metadata tool for libraries and [#biblios.net](#), a hosted version of [#biblios](#) with social cataloging features such as forums, private messaging, and chat.



After beta testing since November with 200 testers, it was unveiled just before the American Library

LibraryThing

[Home](#) [Search](#) [Zeitgeist](#) [Talk](#) [Groups](#) [Local](#)

The LibraryThing Blog

TUESDAY, NOVEMBER 27, 2007

Twenty-five Danish libraries added

If you're Danish and have books, we can help.

We've gone from one to [twenty-five Danish libraries](#) available as cataloging sources. They are available on the Danish-language LibraryThing, [dk.librarything.com](#), and the [English site](#).

Denmark is a small country, so it should be low on our agenda, down with the "Wisconsin push."* But it's a country of unusually passionate readers. Our Dutch experiment proved that catering to small, literate countries works.** Five million Danish readers? Come on in!





...but is the market itself failing?

'...we're seeing the **seeds of a new revolution** being sewn [sic]. As the goal of some companies becomes once more attuned to trimming costs... libraries and their users suffer. In some cases, cost savings are being generated for the company by consolidating products... When this happens, it is short-term profit that is the objective rather than serving the long-term mission of libraries. **These companies have become unresponsive** to the collective goals of our profession and, like so much of our society these days, are no longer focused on the "we" but the "me". It is a sad state of affairs and one that will not be tolerated'

'A symphony out of tune: when companies go deaf'. Carl Grant. Care Affiliates blog. 4 July 2007.
www.care-affiliates.com/thoughts/archives/6



is the market failing?

'We feel that software companies have not designed Integrated Library Systems that meet the needs of academic libraries, and **we don't think those companies are likely to meet libraries' needs in the future by making incremental changes to their products.**

Consequently, academic libraries are devoting significant time and resources to try to overcome the inadequacies of the expensive ILS products they have purchased. Frustrated with current systems, library users are abandoning the ILS and thereby giving up access to the high quality scholarly resources libraries make available'

Duke University Openlib project

PART 3

are *libraries* being disrupted?

- libraries have historically done well in adapting to the needs of the user
- however, there are now many competitors and the absence of a user based approach and user intelligence beginning to tell
- threat from a combination of search engines, social network sites and publishers

'How users behave (and what libraries should do)'. David Nicholas. CIBER, UCL Centre for Publishing, School of Library, Archive and Information Studies University College London. (Presented at Sustaining the Digital Library Symposium. Edinburgh University 2007)

'The past success of libraries, and the generally high regard in which they are held, will not protect them from potential competitors armed with new technologies. **Past success with sustaining change should not provide libraries with confidence.** Libraries are surrounded on all sides by disruptive technologies.'

'The Innovator's Dilemma: Disruptive Change and Academic Libraries.' By David W. Lewis. Library Administration & Management 18(2):68-74 Spring 2004.



'We're good now at cataloguing and indexing stuff.'

Eric Schmidt, Google CEO

'Inside Google. The Man with all the answers'. By David Rowan. Wired [UK edition] August 2009

'Libraries, at this point in their history,
are exactly the kind of successful
organizations that Christensen predicts
will stumble and fail.'

'The Innovator's Dilemma: Disruptive Change and Academic Libraries.' By David W. Lewis. Library Administration & Management 18(2):68-74 Spring 2004.

"... consider [the] example of an undergraduate doing a research paper. The student is faced with two alternatives-- library resources or the open Web. ... **In the past, the library had the clear advantage** ... but the Web is quickly catching up. What is important to understand is that more is better only up to a point. If the student needs ten resources for the project and can get ten from both the Web and the library, it does not matter that a thousand relevant items could be found in the library and only ten on the Web. On this attribute, both alternatives have given the student everything needed and wanted. As a result, in making the choice, the student moves on to another attribute. This attribute might be the amount of time required to find the required resources or it might be their availability late at night. On either of these attributes **the library is probably much less competitive**'.

'The Innovator's Dilemma: Disruptive Change and Academic Libraries.' By David W. Lewis. Library Administration & Management 18(2):68-74 Spring 2004.

'Over time, **the library will have fewer and fewer users**, though these users may exercise undue influence on library services. As Christensen states, "Indeed, the power and influence of leading customers is a major reason why companies' product development trajectories overshoot the demands of mainstream markets." For academic libraries, these leading customers are the faculty. In the end, libraries may be serving only a small number of leading customers **without any significant decline in the cost of services**. This is not a sustainable position, and when this happens, **library services will either collapse or need to be radically restructured**.'

'The Innovator's Dilemma: Disruptive Change and Academic Libraries.' By David W. Lewis. Library Administration & Management 18(2):68-74 Spring 2004.

PART 4

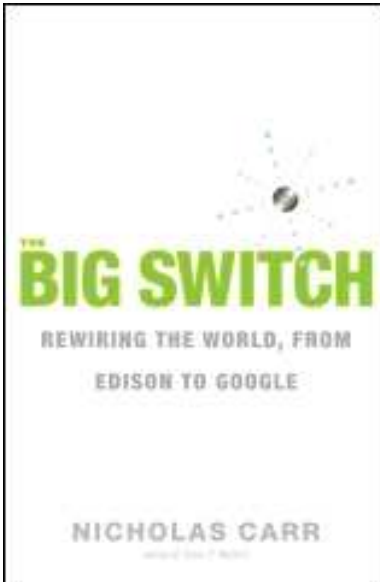
and what about *librarians*?



when we change the way we
communicate we change society

'..when a profession has been created
as a result of some scarcity, as with
librarians or television programmers,
the professionals are often the last ones
to see it when that scarcity goes away.
It is easier to understand that you **face**
competition than **obsolescence**'

'Here comes everybody.' By Clay Shirky. Allen Lane. 2008



'As user generated content continues to be commercialized, it seems the **largest threat** posed won't be to big corporations but to individual professionals—to the journalists, editors ...researchers ...**librarians** and other information workers who **can be replaced** by....people not on the payroll'



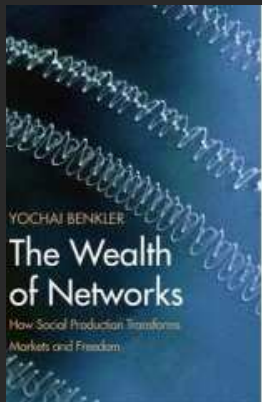
\.....in some cases the change that threatens the profession benefits society.

'Here comes everybody.' By Clay Shirky. Allen Lane. 2008

PART 5

(some) responses from the
library domain

responses from the library domain: (1) open source



'...the quintessential instance of peer production'



'The OLE platform is predicated on Service Oriented Architecture and a **community-source model of development**

Adopting a model of community-source software development and a technology infrastructure based on service orientation is, in itself, **a strategic innovation for libraries and universities.**

Innovation within the library technology marketplace is exhausted and does not engage the enterprise level of research institutions. Therefore it is incumbent upon libraries to revitalize the technological underpinnings of information management services to users.

The Open Library Environment Project. Final Report. (Draft) July 26, 2009

responses from the library domain: (2) scaling-up



.. The Ohio Library and Information Network, OhioLINK, is a consortium of 88 Ohio college and university libraries, and the State Library of Ohio, that work together to provide Ohio students, faculty and researchers with the information they need for teaching and research. Serving more than 600,000 students, faculty, and staff at 89 institutions, OhioLINK's membership includes 16 public/research universities, 23 community/technical colleges, 49 private colleges and the State Library of Ohio.

responses from the library domain: (2) scaling-up



..now that the network has reconfigured behaviours and structures in significant ways, a new set of issues needs to be addressed. In this second phase, **libraries need to create value in an environment where major web presences have changed how people search for information**, where the conduct of learning and scholarship is changing, and where **scale and network effects are increasingly important**



responses from the library domain: (2) scaling-up



Summon™ service, the revolutionary new web-scale
discovery service from Serials Solutions

responses from the library domain: (2) scaling-up



Society of College, National and University Libraries



The current feasibility study will address the following key questions :
What, if any, opportunities exist to develop a **shared service response** within the current Library Management System (LMS) landscape for UK higher education libraries

What, if any, opportunities exist to develop a **shared service response for a next generation open source LMS landscape** for UK higher education libraries

Whether there is a viable business case to support any such opportunities

How any such shared service opportunities might be structured, delivered and governed

are these responses enough?

are they simply sustaining the existing paradigm
or are they making real (and necessary)
change?

PART 6

...thinking 'disruptively'

the 'principles' of disruptive innovation

Based on 'the innovators guide to growth.' By Scott D Anthony et al. Harvard Business Press. 2008

(1) overshooting creates the conditions for disruption

= Products/services that pack too much performance for the average person to use

so create simple products/services that are easy to use

the 'principles' of disruptive innovation

(2) disruption comes from breaking the rules

e.g. Nintendo Wii is NOT about better *graphics*

so look at the new approaches not based in the past—change your mindsets

the 'principles' of disruptive innovation

(3) business model innovation often powers disruption

e.g. business model differences, not technological prowess can throw incumbents off balance..think about \neq biblios.net vs. OCLC

can you take an innovative way to pay the costs of innovation or find a new delivery channel?

the 'principles' for disruption

simplicity, accessibility, affordability are hallmarks of disruption

are you ready to innovate disruptively?

The 'Lewis' test for libraries

(From 'The Innovator's Dilemma: Disruptive Change and Academic Libraries.' By David W. Lewis, Dean of the Indiana University-Purdue University Indianapolis University Library. Library Administration & Management 18(2):68-74 Spring 2004.)

1. Can you consider **buying half as many books** as you now do and investing the money in other ways of providing information to library users?
2. Can you act on what you **learn from freshman** when what they teach you runs counter to what the faculty say they want?
3. Can you **trust small groups in your library to develop products and services**, or does everyone on the staff have to buy in to everything?
4. Are you prepared to **spend money to develop exploratory projects knowing** that one in three will fail?

PART 7

acting 'disruptively'..some first steps

(can we in the library domain deliver 'disruptive' products and services?)

The elements of this section are based on 'the innovators guide to growth.' By Scott D Anthony et al. Harvard Business Press. 2008

allocate resources

Resources for innovation will almost certainly need to be taken from the *core* 'business

organisation in the 'early stages of its innovation journey' should **dedicate a group of people to innovation.**

treat the **resource allocation to innovation as a *capital*** rather than as an *operating* expense,

Ring fencing the resource is important, especially where organisations face trouble in their core business.

look to 'non consumers'

Take away constraints on consumption. Constraints are typically around:

skills

wealth

access

time

don't analyse 'needs'

take a 'job-to-be-done' approach

'people don't want a quarter-inch *drill* they want a quarter inch *hole*'

Theodore Levitt. Harvard Business School

Customers don't really *buy* products (or services); they *hire* them to get jobs done. To identify opportunities to create new services..look first for important *jobs* that people can't get done satisfactorily with available solutions

{Customer} wants to {solve a problem} in {this circumstance}

can ***you*** deliver that disruptive
curved ball ?



'Smooth curve #1.' By theothermattm. <http://www.flickr.com/photos/theothermattm/2748026862/>

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lunchtime talk
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