

NATIONAL SEMINAR ON ELECTRONIC RESOURCES IN MALAYSIA
5-7 DECEMBER 2012
PENANG BAYVIEW BEACH RESORT

DISCOVERY TOOLS ENHANCING ACCESS TO GLOBAL INFORMATION RESOURCES

SUE OWEN
ASSOCIATE UNIVERSITY LIBRARIAN – CLIENT SERVICES
DEAKIN UNIVERSITY, AUSTRALIA



**DISCOVERY -
HAS NEVER BEEN EASY...**





SO MUCH DATA...





DATA NEVER SLEEPS

How Much Data Is Generated Every Minute?

Big data is not just some abstract concept used to inspire and mystify the IT crowd; it is the result of an avalanche of digital activity pulsating through cables and airwaves across the world. This data is being created every minute of the day through the most innocuous of online activity that many of us barely even notice. But with every website browsed, status shared, or photo uploaded, we leave digital trails that continually grow the hulking mass of big data. Below, we explore how much data is generated in one minute on the Internet.

THE
MOBILE WEB
RECEIVES

217

NEW USERS.

YOUTUBE

USERS UPLOAD

48
HOURS

OF NEW VIDEO.

EMAIL
USERS
SEND

204,166,667
MESSAGES.

GOOGLE
RECEIVES
OVER

2,000,000

SEARCH QUERIES.

FACEBOOK
USERS
SHARE

684,478

PIECES OF CONTENT.

CONSUMERS
SPEND

\$272,070

ON WEB SHOPPING.

WORDPRESS
USERS PUBLISH

347 NEW
BLOG
POSTS.

EVERY
MINUTE

571

NEW WEBSITES
ARE CREATED.



NEW WEBSITES
ARE CREATED.

FOUR SQUARE USERS
PERFORM

2,083

CHECK-INS.

FLICKR
USERS ADD

3,125
NEW
PHOTOS.

INSTAGRAM
USERS
SHARE
3,600
NEW PHOTOS.

MINUTE of the DAY

TUMBLR
BLOG
OWNERS PUBLISH

27,778
NEW POSTS.

BRANDS &
ORGANIZATIONS
ON FACEBOOK
RECEIVE

34,722
"LIKES."

APPLE
RECEIVES ABOUT

47,000
APP
DOWNLOADS.

ON WEB SHOPPING

TWITTER USERS
SEND OVER
100,000
TWEETS

WITH NO SIGNS OF SLOWING, THE DATA KEEPS GROWING

These are just some of the more common ways that Internet users add to the big data pool. In truth, depending on the niche of business you're in, there are virtually countless other sources of relevant data to pay attention to. Consider the following:

The global Internet population grew 6.59 percent from 2010 to 2011 and now represents

2.1 BILLION PEOPLE

SO MUCH INFORMATION

Perpustakaan Negara Malaysia

Over one million items

Books 858,421

Serials 20,838

Maps 2,342

Other printed materials 14,118

Malay manuscripts 1,724

Non-book materials 50,386

Source:

<http://web.simmons.edu/~chen/gdl/a-p/Malaysia.htm>

UniMAP Library Databases

- ACM Digital Library
- ASME
- Engineering Village 2
- Engnetbase
- IEEE Explore
- IOP Press
- PaperINVITED.com
- ProQuest Digital Dissertations

Source:

<http://www.unimap.edu.my/eng/template02.asp?tt=51&parentid=276&contentid=465>



OUR RESPONSE

... DISCOVERY



DISCOVERY SO FAR ...

Online catalogues

- Search of local collection via the Integrated Library System (ILS) – books, journals, media – at the title level
- Online catalogues don't include:
 - articles
 - book chapters
 - digital objects

Source: Breeding, Marshall Introducing the Open Discovery Initiative
Accessed 30 Nov 2012 <http://www.librarytechnology.org/litg-displaytext.pl?RC=16924>



DISCOVERY SO FAR

Discovery interfaces

Search inquiry interrogates:

- Local index - ILS and digital collections
- Federated search engine – vendor collections (Proquest, EBSCOHost) and abstracting and indexing (A&I) services

Real-time query on latest sources and fast responses

*Source: Breeding, Marshall Introducing the Open Discovery Initiative
Accessed 30 Nov 2012 <http://www.librarytechnology.org/litg-displaytext.pl?RC=16924>*



DISCOVERY SO FAR

Index-based discovery

- Consolidated index created from
 - local ILS data
 - digital collections
 - vendor databases
 - A&I databases, where negotiated
- Harvesting and indexing undertaken in advance

Source: Breeding, Marshall Introducing the Open Discovery Initiative
Accessed 30 Nov 2012 <http://www.librarytechnology.org/litg-displaytext.pl?RC=16924>



DISCOVERY FOCUS TODAY

‘Web Scale Discovery’

- Consists of a central index and a discovery interface
- Single search across a central/unified/base/consolidated index
- Fast response time
- Relevancy-ranked results list
- Facets, sort, and other tools for refining results
- Connections to full text via OpenURL and direct links
- User accounts



DISCOVERY FOCUS TODAY

‘Web Scale Discovery’

Four WSD vendors offer both —a discovery layer and central index:

- 2007 – OCLC **WorldCat Local** (WCL)

www.oclc.org/worldcatlocal

- 2009 - Serial Solutions **Summon** (SSS)

www.serialssolutions.com/discovery/summon

- 2010 – Ex Libris **Primo Central Index** (PCI)

www.exlibrisgroup.com/category/PrimoCentral

- 2010 - EBSCO – **EBSCO Discovery Service** (EDS)

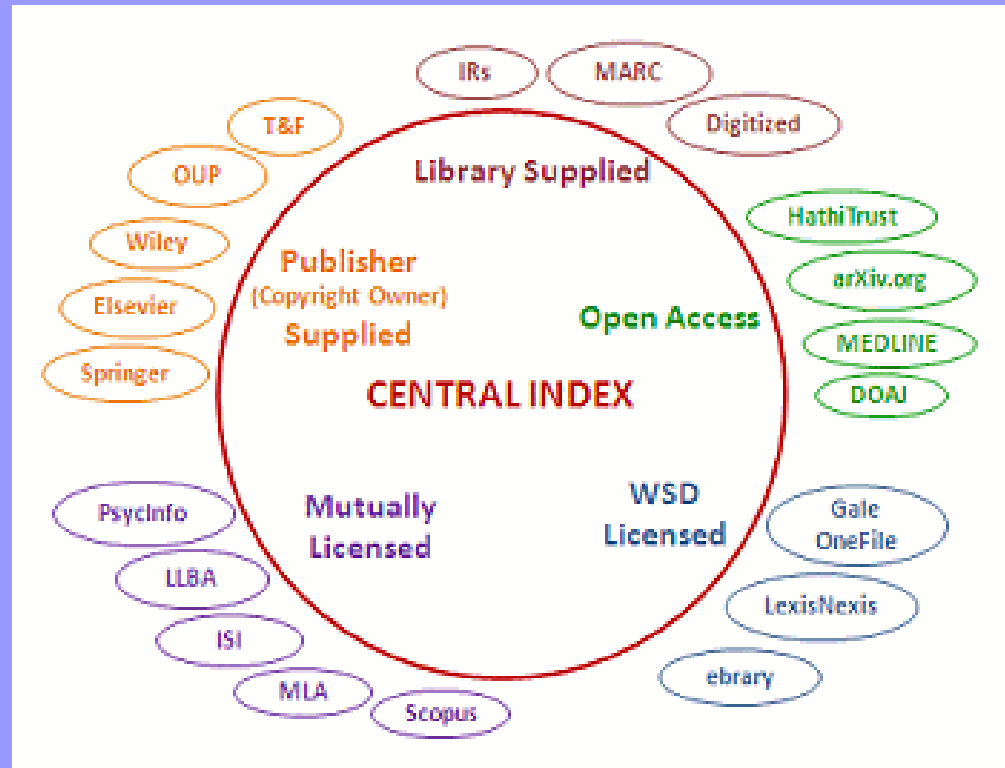
www.ebscohost.com/discovery




WEB SCALE DISCOVERY

Central Index

Athena Hoepfner *The Ins and Outs of Evaluating Web-Scale Discovery Services*
Computers in Libraries (2012)
32 (3)




Deakin University Library: Quick Search – Encore (Next Generation Catalogue) Discover More – EDS (Web Scale Discovery)



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Sat 1st	11.00am	5.00pm
Sun 2nd	11.00am	5.00pm
Mon 3rd	8.30am	8.00pm
Tue 4th	8.30am	8.00pm
Wed 5th	8.30am	8.00pm
Thu 6th	8.30am	8.00pm

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Deakin University Library Engineering LibGuide – Web Scale Discovery, embedded



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An excellent place to start looking for information related to engineering. **Discover More** expands your search to include the library catalogue, Deakin Research Online and journal articles sourced from major databases and publishers.

Discover More (Engineering and IT Gateway)

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Most relevant databases for Engineering

- [Science Direct](#) Science Direct has a wealth of content covering all aspects of Engineering. It contains journal articles, eBooks and conference papers. [Licencing and resource information](#)
- [IEEE Xplore](#) IEEE Xplore is a great place to start looking for information about electrical and electronics engineering. [Licencing and resource information](#)
- [Compendex](#) A database that focuses exclusively on all elements of engineering. [Licencing and resource information](#)
- [Infomit Engineering Collection](#) A collection of Australian works related to engineering. [Licencing and resource information](#)

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Engineering




Also worth a look

- [Web of Knowledge](#) Web of Knowledge is a premium research database for all areas of Science and Technology. [Licencing and resource information](#)
- [Scopus](#) Scopus is the largest database of research literature and quality web sources in the area of science and technology. [Licencing and resource information](#)
- [SpringerLink](#) Contains material relating to engineering, amongst other disciplines. [Licencing and resource information](#)
- [Scirus](#) Scirus searches across a number of science and technology databases at once and brings you back the most relevant



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THE PATH AHEAD...



CHALLENGES

1. Web Scale Discovery Standards

Ex Libris Executive recognised the interests of key participants in Web Scale Discovery were competing, situation to address

- Roundtable required

 - libraries, content providers, discovery service vendors

- Supported by two perspectives:

NISO – National Information Standards Organisation <http://www.niso.org> identifies, develops, maintains, and publishes technical standards to manage information

NFAIS – National Federation of Advanced Information Systems <http://www.nfais.org/> - advocate/educate representing those who create, aggregate, organise, make accessible credible information sources



RESPONSE 1:

Open Discovery Initiative (ODI)

Project goals

1. identify the needs/requirements of libraries, publishers and service providers
2. create recommendations and tools to streamline processes used by parties working together
3. provide librarians with means to assess information provider participation in discovery services – breadth and depth of content indexed, availability of content elements



ODI INVESTIGATIONS

Tools for libraries to assess WSD

- Level of participation by information providers in discovery services
- Evaluate the breadth and depth of content indexed
 - What proportion of library holdings are included?
 - Is content indexed at citation or full-text level?
- Evaluate degree to which content is available to library users
 - How many records are for non subscribed material?



ODI : INVESTIGATIONS

Next steps in project

- Expert groups set up to gather information on
 - Level of indexing
 - Library rights
 - Technical formats
 - Usage statistics
 - Fair linking
- March 2013 – final draft report with recommendations
- www.niso.org/workroom/odi



Stakeholders Strive to Define Standards for Web-Scale Discovery Systems

By [Michael Kelley](#) on October 11, 2012 [1 Comment](#)

FROM
LIBRARYJOURNAL

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Many academic and research libraries are making significant investments in the relatively new and still imperfectly understood Web-scale discovery systems—the four leading ones being EBSCO Discovery Service (EDS) (2010), Primo from Ex Libris (2010), Summon from Serials Solutions (2009), and WorldCat Local from OCLC (2007).

There is great hope that these rapidly maturing products will not only promote information literacy strategies but also deliver what metasearch (or federated search) has failed to achieve—a Google-like interface that provides a fast, single point of entry to an institution's relevant and vetted scholarly content.

However, at the moment, even as libraries are struggling to reestablish themselves as a compelling place to start research, the three constituencies—libraries, content providers, and discovery service vendors—cannot even agree on a common vocabulary to describe what they do.

The time is ripe for innovation and collaboration, but an equitable balance of interests may prove elusive amid intense competitive battles as well as uncertainty about complex issues, such as resource coverage, depth and breadth of indexing, relevance rankings, and usage reporting, to name a few.

Nevertheless, recognizing the need for a constructive dialog around these issues, two groups have begun to explore in earnest best practices for this complex genre of software, which is based on indexed search.

The first initiative, the [Open Discovery Initiative \(ODI\)](#), was seeded at the American Library Association's annual conference in June 2011 in New Orleans, where Oren Beit-Arie, the chief strategy officer at Ex Libris; Jenny Walker, director of strategic initiatives for Ex Libris; and Marshall Breeding, until recently director for innovative technologies and research at Vanderbilt University, Nashville (an Ex Libris customer), [hosted an initial meeting](#).

As a result of this opening push from Ex Libris,



“There is a certain ‘black box’ atmosphere out there at the moment which is not in the collective best interests

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Source: Kelley, Michael *Stakeholders strive to define standards for webscale discovery systems*. In *The Digital Shift*. 11 October 2012. Accessed 27 November 2012. <http://www.thedigitalshift.com/2012/10/discovery/coming-into-focus-web-scale-discovery-services-face-growing-need-for-best-practices/>



CHALLENGES

2. Discovery: future developments

- ‘Google’ continues driving the agenda and user expectations – Are Google and Google Scholar the key?
- Personalisation – “*instead of finding, being found*”
Future use of Semantic Web technologies to model information about users, their needs and preferences, their context and relations, and to incorporate data from other resources like [Linked Open Data](#).
- Algorithm enhancement



CHALLENGES

3. Massive Open Online Courses - MOOCs

- Widening participation, non-award courses
- Global HE potential, accreditation barriers being addressed
- Authenticated users make up a diminishing 'discovery' group
- Academic staff to identify open education resources (OERs) which offer access and use without restriction
- Demand increasing for information sources licensed under Creative Commons licences <http://creativecommons.org/>



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November 13, 2012

American Council on Education May Recommend Some Coursera Offerings for College Credit

By Jeffrey R. Young

The American Council on Education has agreed to review a handful of free online courses offered by elite universities and may recommend that other colleges grant credit for them.

The move could lead to a world in which many students graduate from traditional colleges faster by taking self-guided courses on the side, taught free by professors from Stanford University, the University of Michigan at Ann Arbor, and other well-known colleges.

In what leaders describe as a pilot project, the group will consider five to 10 massive open online courses, or MOOC's, offered through Coursera for possible inclusion in the council's College Credit Recommendation Service. That service has been around since the 1970s and focuses on certifying training courses, offered outside of traditional colleges, for which students might want college credit. McDonald's Hamburger University, for example, is among the hundreds of institutions with courses certified through ACE Credit, as the service is known.

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CASE STUDY

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Rosetta Stone Education

Most Popular

- Most Viewed
- Most E-Mailed
- Most Commented

- When Trying Harder Doesn't Work
- Who's Afraid of Black Sexuality?

CHALLENGES

4. User preferences

- Mobile access – webscale discovery, on the go
- Mobile apps - demand for university mobile apps – include your Library!
- Device-neutral, non proprietary
- Easy interface with personal connected world – learning management system, research repository, e-portfolio, social networks



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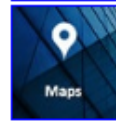
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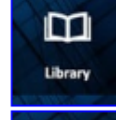
Security contact numbers to call in an [emergency](#)

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A mobile version of the [CloudDeakin](#) application

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Search for a resource from our [Library catalogue](#) - find out what items you have requested or checked out



Maximize the **Value** of Your Collection.

User Experience

Overview

Features & Functionality

Beyond Undergrad

A Full-Text Experience

Guest Access

Mobile Access



Research from Anywhere

EDS Mobile allows users to research on the go—anytime and from anywhere—using EBSCO's intuitive search features and functionality. EDS Mobile is designed for use on many handheld devices and has been optimized for most smartphones, including:

- iPhone
- Android
- BlackBerry
- And others...

EDS is also available as a free downloadable app for the iPhone/iPod touch or Android devices. Please note that iPads function under the full (desktop) version of EDS and not as a mobile device.

New Features Available on EDS Mobile:

- New Design
- Enhanced Branding/Skinnability
- Folders
- Preferences and User Controls
- More Content Loading
- Custom Links
- Facets
- Guest Access
- Real-Time Availability Check

Mobile Access

EBSCO Discovery Service™ Mobile

[\(click for details\)](#)



**Discovery consists of seeing
what everybody has seen, and
thinking what nobody has
thought.**

Albert Szent-Gyorgyi

September 16, 1893 – October 22, 1986

Hungarian physiologist; Nobel Prize winner in Physiology in 1937;
credited with discovering vitamin C and the citric acid cycle.

http://www.brainyquote.com/quotes/keywords/discovery_3.html#tGSMSCyOFghSBZ02.99
http://en.wikipedia.org/wiki/Albert_Szent-Gy%C3%B6rgyi



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Sue Owen

Associate University Librarian, Client Services

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sue.owen@deakin.edu.au

