## Digital Academic Content and the Future of Libraries: International Cooperation in a Networked Age.

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> Inspiring Knowledge Creation, Exploration and Discovery FROM HERE



#### Introduction



- Trends in Academic Libraries Regarding Research and Education
- Implications and Challenges for Academic Libraries
- Enhancing Value through Collaboration

"We live in an age of convergence – with technology driving connections that link people and ideas in unprecedented ways."

excerpt from UBC Library Strategic Plan 2010-2015.



#### Trends Information seeking in a Google world



- Information seeking fundamentally changed by 24/7 access to scholarly material and hugely powerful search engines
- Users are more comfortable using search engines than library catalogues
- Are users getting the "right" information or "enough" information?



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#### Trends Open content



## There is a strong trend towards the re-use and repurposing of information

- Creative Commons and open content licenses
  - Developed to enable users to reuse content
- Massachusetts Institute of Technology (MIT) (USA)
  - Has made the entire university curriculum online over 1,800 courses in 33 academic disciplines
- Open Library Environment (OLE)
  - Alternative to Integrated Library System
  - http://oleproject.org



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#### Trends Technological impacts on teaching and research



Scholarly practices have changed with the application of advanced information technology to create more efficient research

- "Cyber infrastructure" at the heart of research
- Advanced information technology + research = E-Research
- Technology is enabling multi-modal teaching, changing curricula, and creating online collaboration methods
- Online learning and distance education



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#### **Trends** Public access policies



#### Public Access Policies

- Policies implemented in the research community
- Over 100 such policies worldwide, documented by ROARMAP (Registry of Open Access Repository Material Archiving Policies) http://bit.ly/8YTtpM
- Requires authors make their articles freely available within a certain time period

#### • Most common in health sciences, prime example:

- National Institute of Health (NIH)
- NIH offers almost 50,000 competitive grants to more than 325,000 researchers. Policy requires all funded researchers to make their papers freely available
- Federal Research Public Access Act (April 15, 2010)



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#### **Implications for Academic Libraries**



- How can academic libraries remain relevant?
- Evolution: redefining services





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#### **Implications: Dissemination of Research**



- Universities are re-evaluating their roles
- Librarians transform from custodians of collections to interpreters of information

Libraries are providing support for digital repositories, university publishing, and digitization programs.



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#### **Implications: Dissemination of Research** Digital repositories



- Many libraries have set up institutional repositories to provide open access
- Library repositories becoming more relevant
- Examples:
  - University of British Columbia's cIRcle (Canada)
    - https://circle.ubc.ca/
  - Digital Repository Federation (Japan)
    - http://drf.lib.hokudai.ac.jp/ (Japanese)
    - http://bit.ly/970Aqa (English)



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#### **Implications: Dissemination of Research** University Publishing



- University Librarians involved in digital publishing activities of faculty
- Examples
  - Open Journal System (OJS)
    - Software for publishing management
  - University of California (USA)
    - One of the most well-established publishing support programs



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#### **Implications: Dissemination of Research** Digitization and Digital Preservation



- Library digitization should be considered part of university mandate to disseminate information
- Digitizing portions of rare or out of copyright materials and making them available online
- Examples
  - Google Book program
    - Digitizing and making available millions of out-ofcopyright and out-of-print books
    - Legal settlements (pending) to determine compensation for digitized in-copyright materials
  - McMaster University (Canada)
    - Digitized collections are available via a print on demand service



#### **Implications: Dissemination of Research** Digitization and Digital Preservation



- Digital preservation a fundamental responsibility for academic libraries
- Libraries must improve and expand capacities

Digital content is fragile and can be easily lost through hardware or software degradation, or simply a lack of capacity and resources to capture the growing volume of information



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#### Data is the major currency of e-research, not text

# In the next five years, E-Research will generate more scientific data than has been collected in the whole of human history. (Hey, 2004)



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#### **Implications: E-Research** Data Curation



- Data curation: the active and on-going management of data through its life-cycle
- Selection of data, creating metadata for data discovery, documentation related to data, and preservation of data
- Examples:
  - Digital Data Curation Center (Purdue University, USA)
    - http://d2c2.lib.purdue.edu/
  - Canadian Association of Research Libraries (CARL)
     *Research Data: Unseen Opportunities* guide
    - http://bit.ly/cimDJj



#### **Implications: E-Research** Data Training for Researchers



- Growing evidence that researchers worldwide need access to training resources in data management
- Academic libraries can assist research community by providing access to these resources
- Example:
  - MIT Libraries (USA)
    - Offers a website explaining to researchers how to manage their data
    - Data Management Checklist
    - http://libraries.mit.edu/guides



#### **Implications: E-Research** Virtual Research Enivornments



- Virtual Research Environments (VRE)
  - Provide a framework of resources: datasets, analytical tools, publications, and support materials
  - Collaborative
  - Interdisciplinary
- VRE Challenges
  - Sustainability
  - Funding
- Examples:
  - Islandora, Open Source software developed in Canada
  - http://islandora.ca



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## **Implications: Learning Commons**



- A culture of learning, rather than teaching
- Learning Commons incorporates wireless technology, and promotes collaboration and interaction
- Examples:
  - University of Victoria, Learning Commons (Australia)
  - University of British Columbia, Learning Centre (Canada)





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## **Implications: Information Literacy**



- Users studies consistently find that information literacy is not improving with widening access to technology
  - Only 2% of college students start their search for information from a library website (OCLC, 2005)
- Digital literacy: an important professional skill
- Example:
  - eSKILLS UNE (Australia)
  - http://www.une.edu/au/library/eskillsune



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## **Implications: Advocacy**



#### Academic libraries have a vested interest in promoting laws and policies that foster global access and fair use of information

#### • Examples

- Intellectual freedom
- Library Copyright Alliance
  - http://www.librarycopyrightalliance.org
- Anti-Counterfeiting Trade Agreement (ACTA)
  - http://bit.ly/cKyAkS
- International Federation of Library Associations and Institutions (IFLA)



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#### Challenges



- Opportunities for academic libraries to develop creative services
- Challenges for libraries in implementing these services
  - Demand for new competencies
  - Data-intensive research will require 'strategic repositioning' of the library (Swan, 2008)
  - Broader, multi-institutional business cases are needed



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- Collaboration is a necessity
- Interoperability between systems, content, and access policies is critical for creating seamless access to digital collections across institutional and national boundaries
- Example:
  - Confederation of Open Access Repositories
  - http://coar-repositories.org/





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#### **Enhancing Value: IFLA**

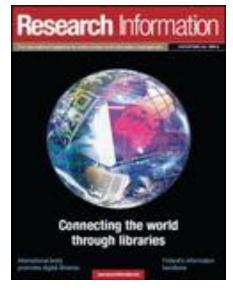
International Federation of Library Associations and Institutions

FILA

## International Federation of Library Associations and Institutions (IFLA)

- Member based; over 1600 members in 150 countries;

- Global voice of libraries and information services: advocacy, networking, professional development



#### **Enhancing Value: IFLA**

International Federation of Library Associations and Institutions

FILA

## **International IFLA Staff**

• 3 Regional offices:

IFLA Africa – Pretoria, South Africa
IFLA Asia & Oceania – Singapore
IFLA Latin America & Caribbean – Rio de
Janeiro, Brasil

• 4 Language centers:

Arabic – in Egypt French for Africa – in Senegal Russian - Russian Federation Chinese – in China



I F L A International Federation of Library Associations and Institutions

#### **Enhancing Value: IFLA**

## IFLA and the Digital: www.ifla.org



About IFLA	Membership
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The International Federation of Library Associations and Institutions (IFLA) is the leading international body representing the interests of library and information services and their users. It is the global voice of the library and information profession. Continued...





Librarians & Institutions everywhere IFLA is the global voice of the library and information profession

Members

The Press Introduction to IFLA for members of the Press worldwide

#### LATEST NEWS

IFLA at the Frankfurt Bookfair, October 2009 Just as in previous years, IFLA had a presence at this year's Frankfurt Bookfair ....

Continued... | 24 November 2009

#### Gothenburg 2010 Calls for Papers

Calls for papers are coming in from IFLA Sections, Core Activities, and Special Interest Groups...

Continued... | 19 November 2009

#### IFLA Senior Policy Advisor reports from the

#### HIGHLIGHTS

#### LIBRARY SERVICES TO PEOPLE WITH SPECIAL NEEDS SECTION

#### Astrid Lindgren Memorial Award

The Library Services to People with Special Needs Section has been nominated for the 2010 Astrid Lindgren Memorial Award!

Continued... | November 26 2009

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EDUCATION AND TRAINING SECTION

#### **Enhancing Value: IFLA**



## And more:

 Digital Library Futures Conference in Milan

(see: <u>http://www.ifla.org/en/news/digital-</u> <u>library-futures-conference-and-the-future-</u> <u>of-digital-libraries-within-ifla</u>) + follow up in Gothenburg

- Digital Library Manifesto
- Guidelines for Digital Libraries



International Federation of Library Associations and Institutions

#### **Enhancing Value: IFLA**



Open access to knowledge – promoting sustainable progress

## 10-15 August 2010, Gothenburg, Swee

#### **Enhancing Value: IFLA**

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## New Professionals Special Interest Group Founded in 2004 (New Professionals Discussion Group)

- Listserv with more than 500 members
- IFLA New Professionals SIG a forum for discussion of current issues and for global networking of new professionals
  - http://npsig.wordpress.com
- Changing needs and challenges regarding new professionals entering the profession (generational shift, changing job profiles and workplace environments, new leadership skills etc.)



Re-structuring mission and objectives of the NPS
 → become a part of it!





FLA



- IFLA's Digital Strategy
- The scope of the digital world is immense no one institution can tackle this problem alone
- Increasing number of common issues impacting libraries, archives and museums around the world
  - Vision: To employ the fullest potential of digital technology in partnership with users by enabling seamless and open access to all types of information without limits to format or geography, and to enhance the ability of libraries, archives and museums to collaborate among themselves and with others to offer the broadest and most complete service possible.

#### • IFLA-CDNL Alliance for Digital Strategies (ICADS)

http://www.ifla.org/icads



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- New developments in library service require academic communities to collaborate
- Researchers should be closely involved in development, evaluation, and implementation of Virtual Research Environments (VREs)
- Library and library organizations are more effective if we develop a unified voice and work across national boundaries



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- IFLA's President-elect theme:
  - "Libraries Shape our Future"
    - Inclusiveness
    - Transformation
    - Innovation
    - Convergence
- IFLA Section of Academic and Research Libraries
- Program at the 2010 conference "Reconstructing library services in challenging times."



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#### Conclusion



Academic libraries must drastically shift their services to meet the needs of students and scholars in the digital world.

It is now up to us to demonstrate our value in this evolving landscape.



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#### Domo arigato gosaimashita!

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#### **References and Image Credits**



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