Libraries and the Big Data Revolution: How data-driven management is transforming library service provision

Constance Malpas, OCLC Research
What business are you in?
What business are you in?
Because what is known must be shared.

Together we make breakthroughs possible.
Libraries at the crossroads

**Redefinition of value proposition:** from collections to engagement

**Patron expectations shaped by digital environment:** more personalization

**Changed operating environment:** smart technologies, data-driven assessment
Libraries at the crossroads

Redefinition of value proposition: from collections to engagement
Patron expectations shaped by digital environment: more personalization
Changed operating environment: smart technologies, data-driven assessment

ISO 11620:2014
Library performance indicators
Aggregating, normalizing and analyzing library data at scale is hard work.

International collaboration of leading research libraries established:

- 25 core management problems
- 200+ relevant data points
- Functional requirements for library data warehouse and dashboard

“[we] estimate that three years would be needed to develop a full-blown toolkit and dashboard …”

OCLC accelerates library innovation by aggregating data on a global scale to:

**Improve operational efficiency**
shared metadata, hosted management systems

**Inform institutional strategy**
right-scaling collections, collaborations

**Increase patron engagement**
customize service offerings to local needs
Big library data powers breakthroughs

- **University researchers** use WorldCat data to discover patterns in economic development and disciplinary knowledge formation.

- **OCLC research** applies big data methods to improve WorldCat data quality, analyze aggregate collections, and innovate with semantic web applications.

- **OCLC product teams** leverage the cooperative’s global data network to connect libraries to the future.
Dr. Michelle Alexopoulos
Professor of Economics
University of Toronto

The Medium is the Measure (2011) used WorldCat data to establish a new indicator for tracking economic shocks associated with the commercialization of new technologies.

Dr. Charles Kurzman
Professor of Sociology
University of North Carolina at Chapel Hill

Geographic Focus of U.S. Social Science Books, 1960-2010

Discriminatory auctions with seller discretion: evidence from German treasury auctions by Jörg Rocholl

This paper examines the results of 93 discriminatory German Treasury auctions between 1998 and 2002. It documents the seller's use of discretion and its influence on auction outcomes and bidding strategies. The evidence suggests that the seller uses its discretion frequently and substantially. It does not maximize revenues in a single-period game, but moves up in the competitive demand curve to set the auction price close to the market price. Bidders do not make profits in German auctions on average, while their bidding strategies reflect the uncertainty created by the seller's discretion. The paper extends and tests the multi-unit auction model by Lengwiler (1999). The empirical evidence is consistent with the implication that the market-clearing price depends on the seller's marginal cost rather than on the submitted demand.
Bank liquidity Bank loans--Econometric models Banks and banking, Central Corporate governance Corporate speech Corporations--Political activity Economics Germany Global Financial Crisis (2008-2009) Interbank market Management United States
Collaborative effort of RLUK and OCLC extending collective collections research

- New insights on shared bibliographic resource
- Increased visibility of RLUK collections
- Demonstrated benefits of system-wide view
- Deepened understanding of emerging requirements for regional bibliographic infrastructure
New UK-wide service will transform library collaboration

3 February 2017

As part of delivering on the vision of a UK national digital library, Jisc and OCLC announce a partnership to build a new shared service that will aggregate academic bibliographic data at scale, improving library collection management and resource discovery for students and researchers.

‘Big data’ enables better customization

Smarter collections
aligned with evolving institutional mission, changing demand

Stronger connections
programs, services aligned with stakeholder priorities, patron needs
Customer relationship management in higher education

cultivating student-centered communities

"CRM gives us a 360 degree view of the student, but Communities give students a 360 degree view of our university."

- Rebecca Joffrey, Director of Interactive Services, Cornell University
Integrates Customer Relationship Management (CRM) and library management

- Customized views of library resources for different patron groups
- ‘Smart’ balancing of collections, aligned with patron borrowing patterns
- Marketing tools that connect library services with communities
Market segmentation, customization of collections and services strengthens community engagement.
4you!
Als lezen moeilijk of niet leuk is, omdat je dyslexie hebt bijvoorbeeld, kan dat behoorlijk lastig zijn. Zeker als je voor school moet lezen. Om het je makkelijker te maken, is er speciaal voor jou de 4you-collectie.

In de 4You-collectie vind je:
- Makkelijke leesboeken voor je lijst (voor vmbo en de onderbouw van havo/vwo);
- Informatieboeken;
- Tijdschriften;
- Luisterboeken;
- Dvd's.

Korte videoimpressie van het optreden van de band Backyard op de jongerenvloer in de Centrale Bibliotheek op vrijdag 1 april 2016.
Leuk dat je onze jeugdpagina bezoekt! Hier lees je wat je kunt vinden en doen in de bibliotheek. In het bijzonder natuurlijk op

Jeugd

Jeugd
Member libraries leverage a **global data network** to:

**Improve operational efficiency**
shared metadata, hosted management

**Inform institutional strategy**
right-scaling collections, collaborations

**Increase patron engagement**
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Together we make breakthroughs possible.
Connect with us ... at the crossroads

Data-driven patron engagement
  • Cloud-Based Library Services (Scott Livingston)

OCLC’s global data network
  • Regional and National Infrastructures (Axel Kaschte)

Big data and OCLC Research
  • Resolving the Identities of Entities (Shenghui Wang)
Thank you