

Is the Researcher Human? Is the Librarian? Bots, Conversational User Interfaces, and Virtual Research Assistants

CNI 2017 Spring Meeting, Albuquerque, New Mexico

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<https://www.cni.org/topics/information-access-retrieval/is-the-researcher-human-is-the-librarian-bots-conversational-user-interfaces-and-virtual-research-assistants>

Issue-Oriented Briefing Overview

Lisa: Purpose and Vision for Session

Michael: Conversational User Interfaces

Emily: The Bot as Reader

Jason: Future Developments and Concerns

Questions/Comments/Discussion

Integrated Performance Support

Becoming Pervasive in the Consumer/Business Marketplace

Customer Service

Sales Strategy

Legal Research

Journalism

What about libraries?

n 1999 ... *Virtual Futures*

Virtual Futures: Developing New Models of Instruction

ACRL Alliances for
New Directions in Teaching and Learning Discussion Group

January 31, 1999

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EXAMPLE TUTORIALS:

Flow of Information
<http://www.library.ucla.edu/libraries/college/instruct/flow/flow.htm>

RIO: Research Instruction Online
<http://dizzy.library.arizona.edu/rio/>

TILT: Texas Information Literacy Tutorial
<http://tilt.lib.utsystem.edu/>

Research Strategy Advisor
<http://info.lib.uh.edu/rsa/rsa.htm>

Research QuickStudy
<http://tutorial.lib.umn.edu/>

Information Literacy Program
<http://www.uwp.edu/library/>

How to Effectively Locate Federal Government Information on the Web
<http://gort.ucsd.edu/pcruse/universe/intro.html>

VENDOR INITIATIVES:

InfoTrac

InfoTrac Training
<http://library.iacnet.com/html/training.html>

LEXIS-NEXIS

Academic Universe Knowledge Base
<http://support.lexis-nexis.com/academic/default.asp>

Statistical Universe Spotlight on Statistics
<http://web.lexis-nexis.com/statuniv/form/stat/help2.html>

Congressional Universe Help
<http://web.lexis-nexis.com/congcomp/form/cong/help.html>

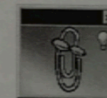
FirstSearch

Bibliographic Instruction Overview
<http://www.oclc.org/oclc/fsbi/>

Templates
<http://www.oclc.org/oclc/fsbi/templates.htm>

INTEGRATED LEARNING SUPPORT:

The Microsoft Assistant Clippit



INVISIBLE LEARNING SUPPORT:

The Invisible Computer: Why Good Products Can Fail, The Personal Computer is So Complex, and Information Appliances Are the Solution (1998) by Donald Norman [Excerpts: http://www.jnd.org/cv.html#Invisible_Computer]

Nielson Norman Group: Strategic Human-Centered Design
<http://www.nngroup.com/>

n 2005 ... *In the Flow*, Lorcan Dempsey

**THE
NETWORK
RESHAPES
THE
LIBRARY**



n 2007 ... *Digital Libraries à la Carte (TICER)*



n 2014, 2015, and 2017 ...

NMC Horizon Report: Library Edition

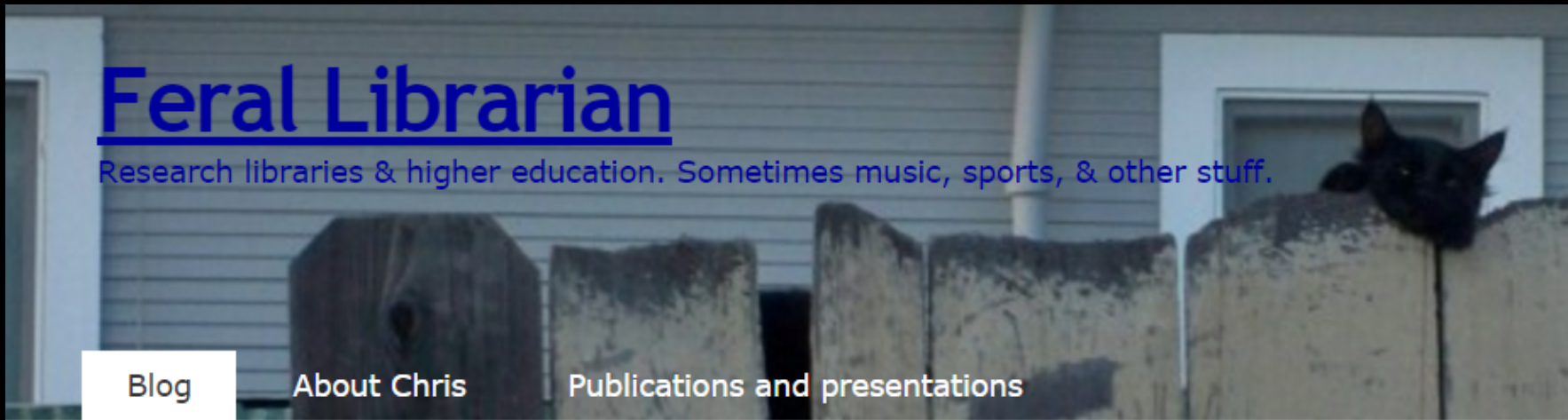
Important Developments in Technology	2014	2015	2017
Artificial Intelligence			
Bibliometrics and Citation Technologies			
Big Data			
Digital Scholarship Technologies			
Electronic Publishing			
Information Visualization			
Library Services Platforms			
Location Intelligence			
Machine Learning			
Makerspaces			
Mobile Apps			
Online Identity			
Online Learning			
Open Content			
Semantic Web and Linked Data			
The Internet of Things			

n 2017 ...

NMC Horizon Report: Library Edition (Semi-Finalist)

Key Trends	Significant Challenges	Important Developments in Technology
Advancing Cultures of Innovation	Addressing Societal Challenges	Adaptive Learning Technologies
Collaborative Learning Approaches	Competition from Alternative Avenues of Discovery	Information Visualization
Increasing Accessibility of Research Content	Embedding Academic and Research Libraries in the Curriculum	Makerspaces
Prioritization of Mobile Content and Delivery	Managing Knowledge Obsolescence	Mixed Reality
Proliferation of Open Educational Resources	Marketing/Promoting Library Services	Virtual Assistants
Shift Away from Books	Rethinking the Roles and Skills of Librarians	Wearable Technology

In March 2017 ... Artificial Intelligence and Machine Learning in Libraries, Chris Bourg



Feral Librarian
Research libraries & higher education. Sometimes music, sports, & other stuff.

[Blog](#) [About Chris](#) [Publications and presentations](#)

What happens to libraries and librarians when machines can read all the books?

🕒 Published March 16, 2017 Library stuff 💬 2 Comments

Tags: AI, future of libraries, machine learning, technology

Many Questions ...

In what circumstances can bot deployment enhance services to users?

How should we design content and interfaces when the "reader" of the content might not be a human, but rather a computer or bot that is processing that information on behalf of a person?

How will information literacy programs help users develop fluency with conversational (and often voice-based) search and retrieval?

What are the ethical and legal implications of deploying these technologies?

What of the threat to existing jobs in libraries?

What of the threat to libraries from artificial intelligence competition?

Want to Follow up?

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