Preparing for the Future
The Dangers of Prediction
The Future is a Point of View
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“The best way to predict the future is to invent it.”

- Alan Kay
Agenda for Invention

• Learn a Lesson from Technical Services
  – Automation and Cataloging
• Reference’s Present
• Questions for Our Future
• Scenarios
• Action Items
“The history of library science is one of expanding automation”

Positive Evidence:
- OPAC, Circulation, Online Searching, Copy Cataloging, ILL
The Failure of Computer Science

Computer Science’s View of the Reference Desk of the Future

Reference Librarian’s View of the Reference Desk of the Future
• Negative Evidence:
  - Reference
    • Expert Systems
    • Artificial Intelligence Systems
    • AskJeeves
  - Original Cataloging
    • Automated Indexing and Abstracting
      - Word Example
    • Natural Language Processing, TREC Q &A
The Cataloging Case

Positives
• Drove down cost of cataloging
• Lead to the explosion of consortia networking
• Facilitated new functionality
  - Union catalogs, Z39.50

Unintended Consequences
• Drastically reduced distributed cataloging expertise
• Decreased Subject Expertise
• Decreased libraries’ responsiveness to new media
• Lead to a consumer attitude in many library environments
• Provide an increasing volume of diverse digital resources to the desktop
• Provide an increasingly comprehensive, but customizable collection to the user
• Build portals that push users to vendor branded information sources
• Provide more instruction, increasing the confidence of the user population in their abilities to find information if note their ability
The Consequence

• We have enticed the academy into cyberspace... without us.
• We have proven the value of library resources... but not the librarian
• Reference has been left behind
• Digital Reference as a means of following the user into cyberspace
What Have We Invented?

- The First Mature Digital Library Application
- Reference on the Internet is Possible
- Reference is “Networkable”
  - VRD, CDRS, 24/7, LSSI, Alberta
- Reference is “Systemizable”
  - QuestionPoint, LSSI
- Reference Networks can Break Boundaries
  - Cleveland Public Library, Alberta College Network
Where do We Want to go From Here?

- Levels of Automation
  - Human Centered versus Manual Labor
    - “Where do we let the machines do what we don’t want to?”
    - “What is the role of librarians in reference? Expertise, warm and fuzzy, synthesis, instruction?”

- Levels of Expertise
  - Process expertise to subject expertise

- Linkage to our Institutions
  - Where do we define our institutions? Academy, Government, Business?

- Relation to Current Roles
• Disconnecting Reference from the Collection
• Reference is Context
• Reference Librarian as:
  - Agency
    • Representing a user's information need to the system
  - Tool Users
    • Expert users of information systems
  - Tool Makers
    • Informed designers and user advocates
“The case can be made that by keeping us out there at those reference desks eight, 10, 12, or 16 hours a day, we are neglecting our mission: finding threads of information - wherever they are and in whatever format - and weaving them together effectively for patrons to use. Without widespread grassroots focus by reference librarians on system improvements and design, what we will all assuredly become soon are masters of chaos theory, because the opaque online systems are about to outnumber the practitioners.”

- LeGuardia, JASIS
The Preferred Scenario

• The reference librarian transitions from “help desk” to true information consultant
  – An Information Consultant that not only seeks information but creates value-added information products

• Databases, websites, embedded applications, synthesis, information strategies
  – A full-fledged member of the new digital library
The Preferred Scenario, cont.

- Skills of the “New” Reference Librarian:
  - Information Seeking
  - Interface Design
  - Question Negotiation (on a grand scale)
  - Genre Resources
  - Information Architecture

- Standards and Systems Knowledge
The Preferred Scenario, cont.

- Environments of the “New” Reference Librarian
  - Hybrid Libraries
  - Institutions (business, academia, education) as Professionals leading a staff of Paraprofessionals
  - Freelance
  - Digital Libraries (Aruba)
Another Likely Scenario

• Elimination of Reference Staff in Favor of Automation and Outsourcing
• Vendor Bundled Reference Solutions
• Elimination of Non-Question Function of Reference Based on Current Economic Models
  – “Reference authoring”
Invent the Future

• Get into Digital Reference AND Digital Libraries
  – Start a Local Library Think Tank
    • Weekly Brown Bags
    • A Budget
• Be Active
  – Present to the “Board” (faculty, CIO, Principles)
• It is Time to Take the Reference Revolution to the Street.
The Choice is Yours

• Fight the “Of Course Reference Attitude”
  - Every library function must be examined, validated and championed

• Set the Standards
  - Utilization Standards
  - Technical Standards
  - Cost Standards

• Update your Skills
  - Internet
  - Metadata
  - Database
  - Networking and “Soft” Skills