



# Virtual Dave Lankes

## Presentation

<http://www.DavidLankes.org>

**TITLE:** The Future of Reference

**AUTHOR(s):** R. David Lankes

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**ABSTRACT:** Discussion of the evolution of reference and a discussion of environmental and technological factors pushing reference librarians to change.

**KEYWORDS:** digital libraries, libraries, virtual reference, reference, digital reference

The  
FUTURE  
of  
Reference



R. David Lankes

<http://www.davidlankes.org>

# The Dangers of Prediction



# Agenda

- Glance at the Past
- Look at the Present
- Peek at the Future
  - Assumptions
  - Consequences
  - Scenarios
  - Redefine Reference?






# 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
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# Reference's Present

- 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 not 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
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# Digital Reference as a Solution

- Digital Reference is Pervasive and Moving from Experiment to Core Service
  - QuestionPoint in 1 Year:
    - 1,000 Libraries
    - 20 Countries 24 Languages
    - 150,000 Reference Interactions
  - Technical Standards, Assessment Tools, Training Initiative (IMLS), International Conference, Research Agenda



# 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

# Assumptions

- Frequently Used Information will be Increasingly Digital
  - Saffo's Sphere: Paper as an interface
  - Public Sector: Increasingly multimedia information
    - HTML, MP3, Digital Video
  - Academic Sector: Increasing production (and availability) of non-journal information
    - eJournals, listservs, data sets, MIT's DSpace
  - School Sector: Focus on Courseware and Classes
    - Lesson Plans, Courseware, Instruction, Lectures

# Paul Saffo's Sphere

- “The relationship between burgeoning paper and even more rapid electronic diffusion resembles an expanding sphere, in which volume increases more rapidly than surface area. The information business has become a kind of piñata: a thin paper crust surrounding an enabling electronic core. Paper has become the artifact of electronic media, but we barely notice because the paper crust conceals the core.”

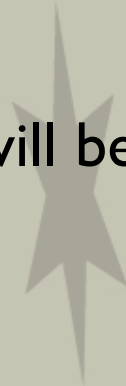


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# Assumptions

- The Digital Divide will be Bridged
  - Access Everywhere
    - Library, Mall, Starbucks, etc.
  - Personal Computer will be like the Personal Pencil
    - Advent of ubiquitous computing
  - Policy Mandate
    - Universal Service will be Digital
    - Digital Democracy





# Assumptions

- Information Production will Increase
  - Sources will be EVERYTHING
    - Publishers, Individuals, Toasters, Cars...
  - New Forms of Quality Assurance will be Created
    - Problems with Peer Review, the Rise of Expert Review, The Advent of Annotation as Review



# “DLO’s” and “Annotation Spaces”



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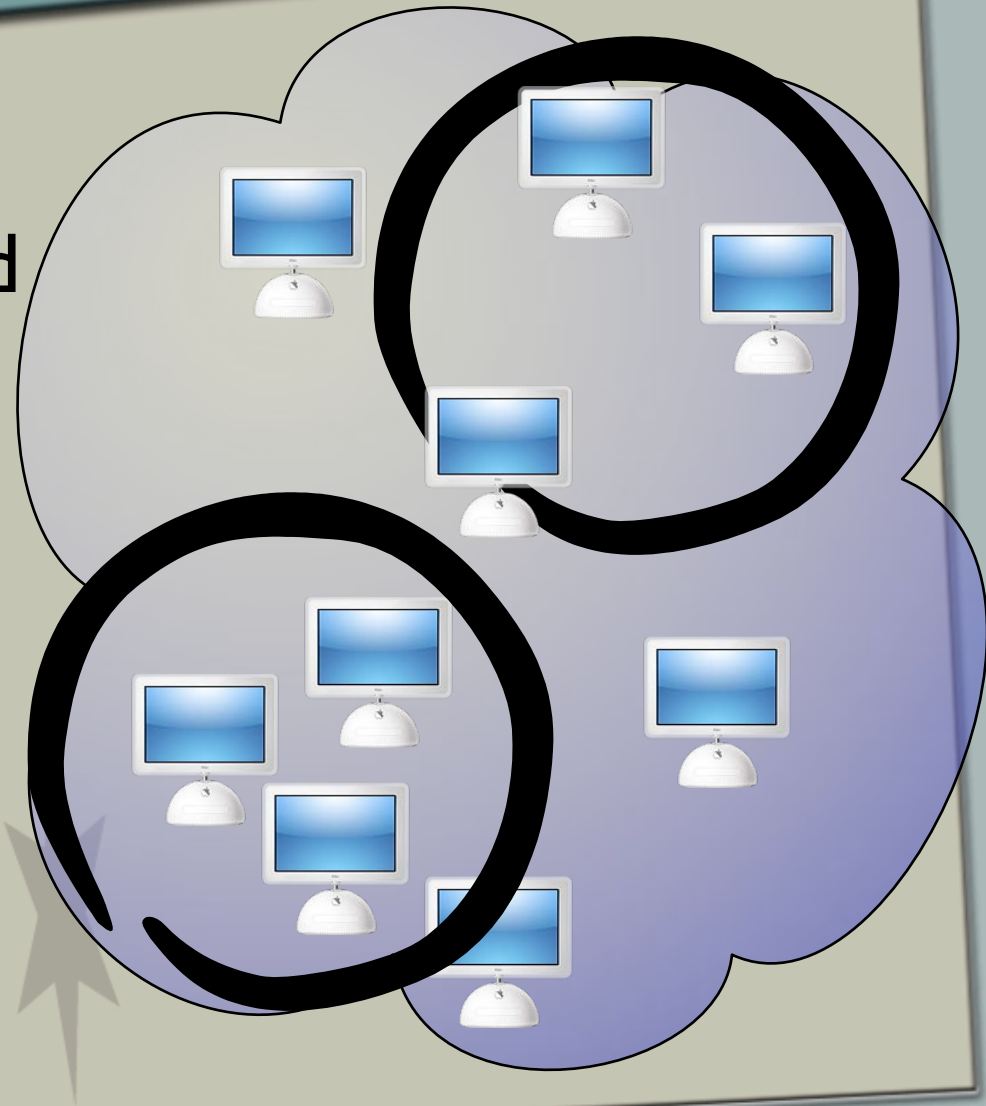
# Assumptions

- **Library Service (Reference) Will be Networked**
  - Intra-system, Consortium, Nationally, Internationally
  - Based on Topic, Ad Hoc Partnerships
  - Advent of the Reference Cloud



# The Advent of Peer Networks

- A Collection of Digital Reference Services (and capabilities) Bound by Some Common Aspect
  - Geography, Topic, Population, Capability
- Combined Networks Constitute a Digital Reference Cloud





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# Assumptions

- Digital Information
- Bridged Digital Divide
- More Information
- Networked Reference



# Results

- Content is Devalued
- Context is the Value
- Context is the Result of Expertise
  - Expertise is a Continuum
    - Subject: The creation/synthesis of information in a given subject
    - Process: the manipulation/navigation of information

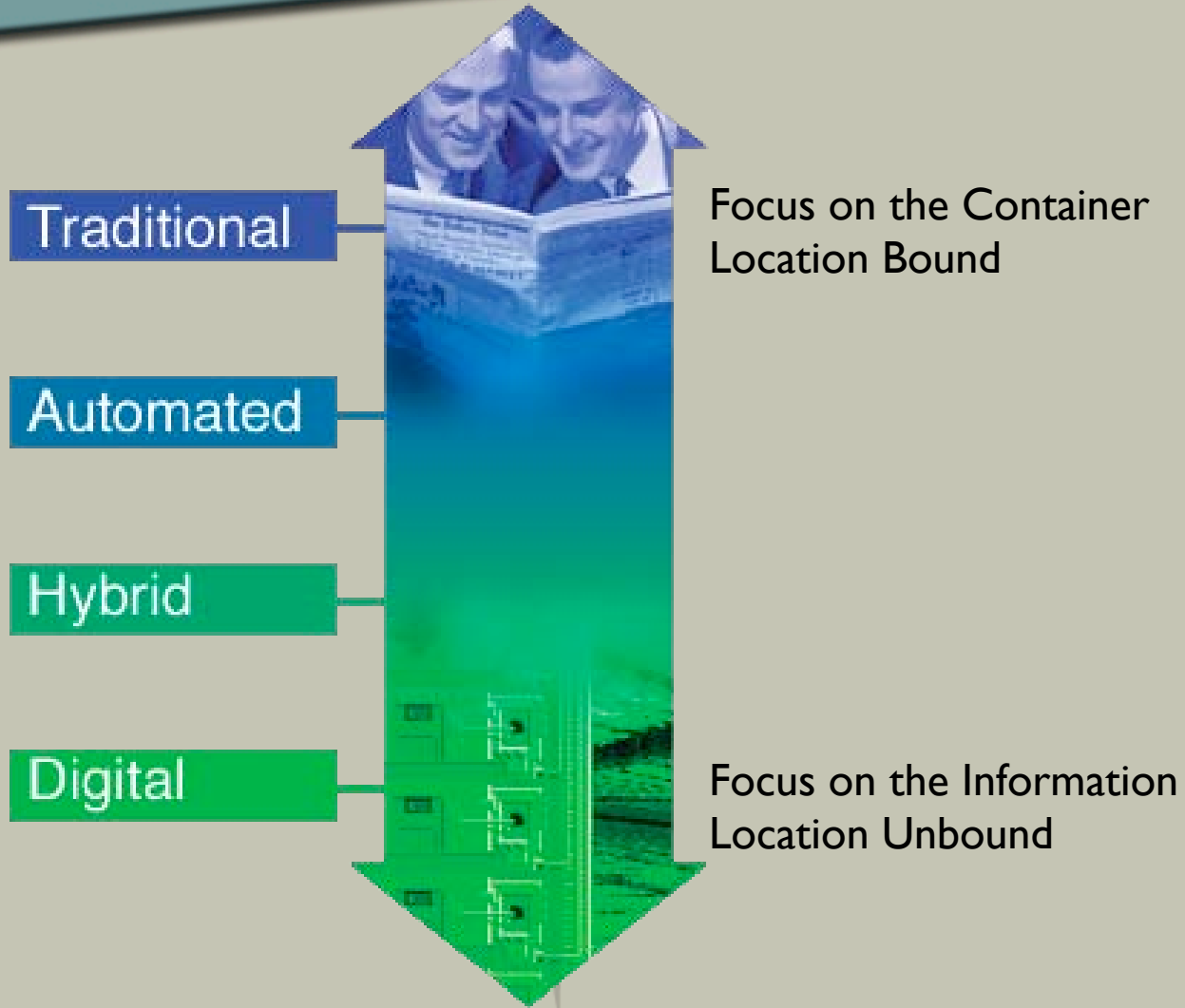


# The Changing Ethic

- Disconnecting Reference from the Collection
- Reference is Context
- Reference Librarian as:
  - Agency
    - Representing a users information need to the system
  - Tool Users
    - Expert users of information systems
  - Tool Makers
    - Informed designers and user advocates

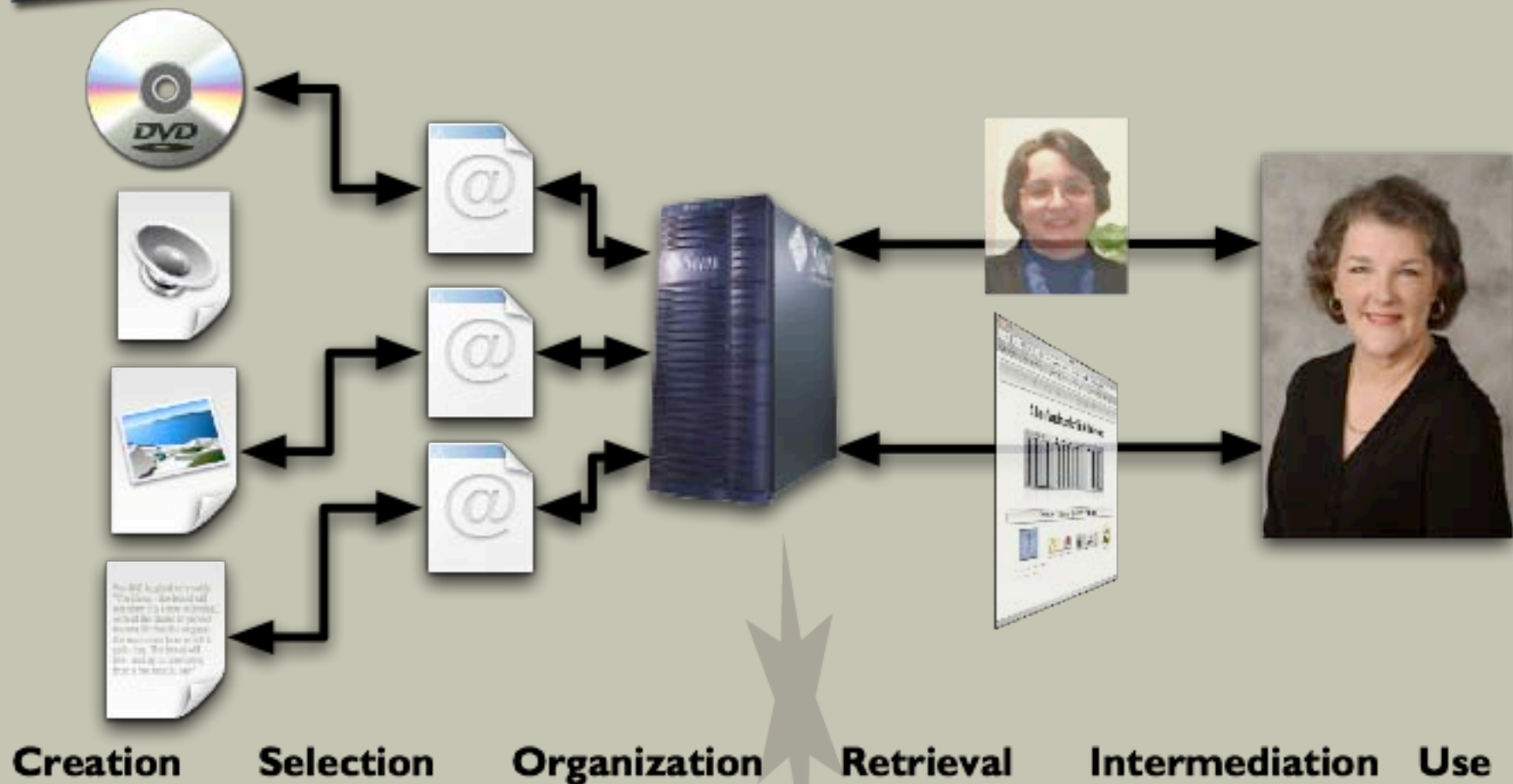


# Sutton's Library Continuum

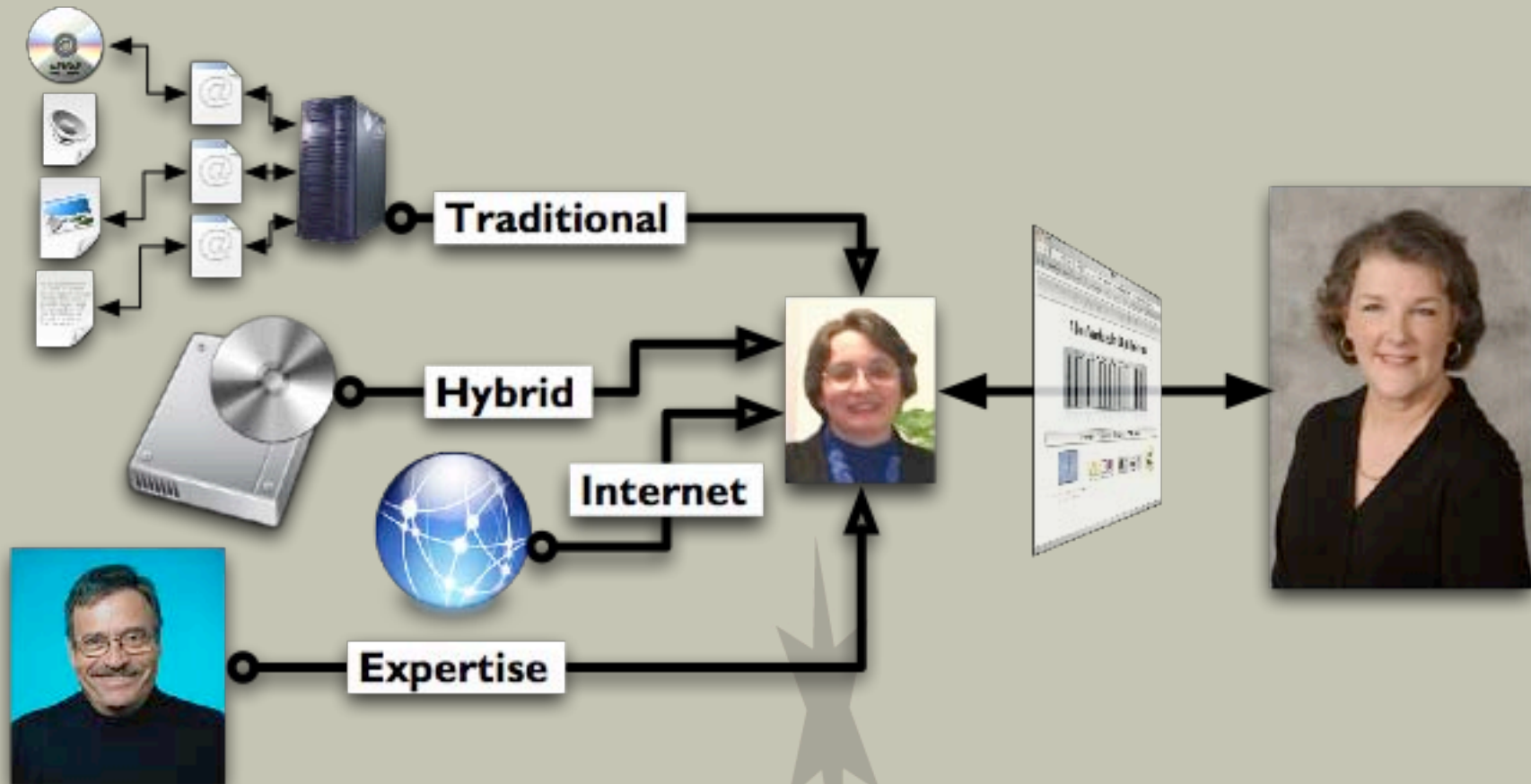




# Agency in a Traditional Library



# Agency (and tool use) in a Hybrid Library



# Tool Making

“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 Future

- Continued Evolution of Process Expertise
- Incorporation of Expertise into the collection, Service and the Network
  - AskA (Commercial and Public), Faculty, Officials, Consultants
- Devolution of Library Generalists
  - New role for the Generalist: Triage

# The Future, cont.

- Librarianship as a Profession Endures
  - Context Discovery and Provision
    - Not necessarily housing the collection
  - Information Organization and Abstraction
    - Not simply applying rules, but developing schemes across individual users or communities




# 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”



# 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
  - Define Librarianship as a Technical Discipline
- 



# Visions of the Future

**“The best way to predict the future is to invent it.”**

Alan Kay





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