LIBRARIES AND SCHOLARY PUBLISHING IN A TIME OF DISRUPTION AND TURMOIL
THE PROSPECTS FOR RADICAL COLLABORATION

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BORING TITLE!!!
NEW TITLE NUMBER ONE

YOU CAN’T COUNT THE APPLES IN THE SEED

ASSURING VITALITY AND RELEVANCE FOR SCHOLARLY PUBLISHING
NEW TITLE NUMBER TWO

PIONEERS NEED FRONTIERS

ARE WE READY FOR NEW MODELS OF RESEARCH AND TEACHING/LEARNING?
NEW TITLE NUMBER THREE

THE TROMPE L’OEIL

SCHOLARLY PUBLISHING

IMAGE AND REALITY
NEW TITLE NUMBER FOUR

CHAOS BREEDS LIFE

RETHINKING THE WAYS RESEARCHERS WILL CREATE, COMMUNICATE, AND PRESERVE THEIR WORK
NEW TITLE NUMBER FIVE

SOMETIMES...A SCREAM IS BETTER THAN A THESIS

KUMBAYA

RADICAL COLLABORATION

SYSTEMIC PARTNERSHIPS
WHAT ARE THE KEY TRENDS DRIVING THE DEVELOPMENT OF THE UNIVERSITY AND ITS LIBRARY?
WHAT IS PROVOKING NEW THINKING ABOUT THE 21\textsuperscript{ST} CENTURY LIBRARY?

• Rapidly Shifting User Behaviors/Expectations
• Redundant Inefficient Library Operations
• Aging Service Paradigms
• Increasing Emphasis on Unique Resources
• Need to Achieve Scale and Network Effects Through Aggregation
• Acceleration of Collective Innovation
WHAT IS PROVOKING NEW THINKING ABOUT THE 21\textsuperscript{ST} CENTURY LIBRARY?

- Mobility of User
- Cloud Computing
- Semantic Web
- Open Content
- Globalization
- Collective Intelligence
- Online Education/MOOC
- Assessment
- Customization/Personal Web
- Economic Context
- Radical Collaboration
- E-Research
- Information Policy
- Mutability
- The Internet of Things
NEW TECHNOLOGIES
AND THE 21\textsuperscript{ST} CENTURY UNIVERSITY

• Mobiles and Tablets (single, portable multi-purpose device)
• Cloud Computing (distributed processing and applications)
• Geo-Everything (geolocation and geotagging)
• Personal Web (customized management of online content)
• Linked Data (connecting and relating structured information)
• Semantic-Aware Applications (meaning to provide answers)
• Smart Objects (links physical world with information)
NEW TECHNOLOGIES
AND THE 21ST CENTURY UNIVERSITY

• Open Content (wide distribution and repurposing)
• MOOC (massive open online courses)
• Electronic Book (platforms, applications, redefinition)
• Data/Big Science (research information management)
• Games As Learning Tools (participation and interaction)
• Visualization and Simulation (more meaningful and intuitive)
• 3-D Printing
WHAT ARE THE IMPLICATIONS FOR PROFESSIONAL SKILLS AND STAFFING?
DO 20\textsuperscript{TH} CENTURY SKILLS STILL MATTER?

- Information Selection
- Information Acquisition
- Information Synthesis
- Information Navigation
- Information Dissemination
- Information Interpretation
- Information Understanding
- Information Use
- Information Application
- Information Archiving

- In Support of Teaching and Learning
- In Support of Research and Scholarship
THE SHIFTING VISION OF THE LIBRARY

- Legacy
- Infrastructure
- Repository
- Portal
- Platform
- Application
- Enterprise
- Public Interest
WHAT ARE THE IMPLICATIONS FOR STAFFING?

• Professionals With Diverse Academic Backgrounds
• Wide Range of New Professional Assignments
• New Roles of Support Staff and Students
• Messy/Fluid Organizational Structures

• Impact on Values, Outlooks and Styles
• Impact on Campus Understanding, Recognition and Respect
• Impact on Organizational Relevance and Impact
CAPABILITIES OF THE 21\textsuperscript{ST} CENTURY LIBRARY INFORMATION PROFESSIONAL

- Deep Subject, Process, or Technical Expertise
- Deep Service Commitment
- Commitment to Research and Development
- Commitment to Assessment and Evaluation
- Communication and Marketing Skills
- Project Development and Management Skills
- Political Engagement
- Resource Development Skills
- Commitment to Rigor
- Entrepreneurial Spirit
- Commitment to Collaboration
- Commitment to Social Justice
- Leadership/Inspirational Capacity
ARE SCHOLARY INTEGRITY AND PRODUCTIVITY AT RISK?
BUILDING THE DIGITAL LIBRARY
QUALITY=CONTENT+FUNCTIONALITY

• Published/Licensed Content
• Primary Content
• Open Web Content
• Institutional Content
• Research Data Content
• Multimedia Content
• Integrated Services
• Software Tools
PRESERVE AND ARCHIVE THE CONTENT

• Archive as Repository HOLD
• Archive as Persistence ACCESS
• Archive as Curation SECURE
• Archive as Steward CARE

• Analog
• Digital Conversion
• Born Digital
• Disaster Preparedness
BORN-DIGITAL CONTENT AND ISSUES OF SCHOLARLY INTEGRITY

• Ability to Consult Evidence/Sources
• Ability to Pursue Research Study When Primary Sources Gone/Changed
• Repository Chaos/Research Study Deposited and Accessed in Multiple Sites

Integrity: adherence to code or standard of values complete and unimpaired and undivided
BREADTH AND DIVERSITY OF BORN-DIGITAL CONTENT

• Licensed/Published Works (E-Journals, E-Books) (Commercial, Academic, Independent, Self-Publishing)
• E-Video and E-Audio
• Digital Government
• Online Learning Materials
• Research Data
• Social Media
• E-Archives (Personal Papers, Organizational Records)
• Web Sites and Web Documents
BREADTH AND DIVERSITY OF BORN-DIGITAL CONTENT

• Visual Images
• Spatial Data (Longitudinal Observations)
• Software/Applications (Proprietary, Open Source)
• Video Games
• Medical Data (Personal Health Records)
• Live Feeds (RSS, News)
• Visualizations/Simulations
• Interoperable Metadata (MARC, BIBFRAME, schema.org)
ADVANCE THE REPOSITORY MOVEMENT

- Discipline Repositories
- Institutional Repositories
- Community Repositories
- Data Repositories
- Departmental/School Repositories
- Individual Repositories
- Learning Repositories
- Government Repositories
- National Repositories
- Publisher Repositories
- Research Data Repositories

THE RIGHT TO TEXT AND DATA MINE
SUPPORT THE NEEDS OF BIG DATA

• Federal/Funding Agency Mandate
• Massive Data Sets
• Unstructured Data/Curation
• Extraction
• Distribution
• Collaboration
• Visualization
• Simulation
• Preservation
SUPPORT THE NEEDS OF RESEARCH

• Navigate, Analyze, Synthesize

• Open Research/Continuous Scholarly Communication

• Scholarly Products to Scholarly Process

• Expertise Databases/Subject Ontologies

• Data Management Consulting

• Integration of Disparate Sources/Grey Literature

• Special Library/Informationalist Model
DIGITAL LIBRARIES
SOME META ISSUES

• Massive Surveillance
• Security Meltdowns
• Network Neutrality
• Corporate Control
HOW DO WE RESPOND TO THE SHIFTING NEEDS OF OUR USERS?

WHAT ARE MEASURES THAT MATTER?
PREPARE FOR ACCOUNTABILITY AND ASSESSMENT

• Institutional Expectations
• Government/Funder Mandate
• Measures Of User Satisfaction
• Measures Of Market Penetration
• Measures Of Success
• Measures Of Impact
• Measures Of Cost Effectiveness
• System Design For Usability
• Insanity of Most ROI
VALUE RESEARCH

FINANCIAL VALUE

IMPACT VALUE

MIGRATION FROM PRODUCT TO SERVICE

RELATIONSHIP BETWEEN ACTION AND BENEFIT
RESPOND TO USER EXPECTATIONS

- Content
- Access
- Convenience
- New Capabilities
- Cost Reduction
- Participation
- Individual Productivity
- Individual Control
- Organizational Productivity
EMBRACE THE “HUMAN” OBJECTIVES

• Success (turn out well, attain desired end)
• Happiness (well-being and contentment)
• Productivity (achieving results or benefits)
• Progress (forward movement or betterment)
• Relationships (personal connections or attachments)
• Experiences (observation or participation)
• Impact (significant effect)
HOW ARE WE ESSENTIAL TO OUR COMMUNITIES AND DECISION MAKERS?

• Student/Citizen Success
• Faculty/Researcher Productivity
• Campus/Community Economy
• Institutional/Community Values
• University/Community Reputation

VIRTUAL/VIRTUOUS/VIRTUOUS
HOW CAN WE BUILD A MORE EFFECTIVE R&D CAPABILITY AND IMPACT?
SETTING THE R&D AGENDA

INDIVIDUAL INTEREST

PROFESSIONAL IMPORTANCE

R&D AGENDA

ORGANIZATIONAL PRIORITY

NATIONAL NEED
THE R&D ENTERPRISE

• New Knowledge Creation
• Laboratory for Experimentation
• Magnet for New Skills/Capabilities
• Venue for Faculty Collaboration
• Venue for Corporate Collaboration
• Solve Information Problems
• Solve Technology Problems
THE R&D ENTERPRISE

- Potential for Capitalization/Technology Transfer
- Foundation and Federal Funding
- Credibility and Visibility
- Support for Decision Making
- Organizational Culture
- Digital Library Program Development
- Organizational Risks
CONTEXT FOR INFORMATION WORK
(Marina Gorbis, EDUCAUSE Review, May/June 2016)

- Smart Machines: Human Machine Symbiosis
- Coordination Economics: Social Structured Value Creation
- Immersive Collaboration: Blended Reality
- Maker Mindset: Democratizing Creation
- Opportunities for Globalization and Inclusion
CAN WE WORK TOGETHER MORE EFFECTIVELY ON INFORMATION POLICY PRIORITIES?
ADVOCATE THE INFORMATION POLICY AGENDA

• INTELLECTUAL FREEDOM
• PRIVACY
• CIVIL LIBERTIES
• EDUCATION PROGRAMS
• RESEARCH PROGRAMS

• INTERNET DEVELOPMENT
• TELECOMMUNICATIONS
• GOVERNMENT INFORMATION
• APPROPRIATIONS
• WORKFORCE POLICY

• FIGHTING THE COPYRIGHT WARS

HOPE/POWER/ACTION THROUGH COLLABORATION
POLITICAL ADVOCACY
THE LIBRARY ROLE

• Knowledgeable Resources for the Community
• Political and Legislative Advocates for Community Interests
• Educators of Community on Priority Issues
• Documenters of Impact of Legislative Actions
• Promoters of Campus and Community Coalitions
• Enablers of Successful Models Which Support Political Agenda
HOW DO WE TRANSITION FROM KUMBAYA TO MORE RADICAL COLLABORATION?
FORUMS FOR COOPERATION

- Library Systems
- Local and Regional Cooperation
- State Projects
- Multi-State Projects
- National Consortia/Projects
- International Partnerships
- Researcher Collaboration
- Publisher Collaboration
- Collaboration with Technology Organizations
- Corporate Partnerships
- Business Partnerships

REACHING OUT TO CULTURAL COMMUNITY
PROMOTING NEW COMBINATIONS THRU PUBLIC-PRIVATE PARTNERSHIPS
RADICAL COLLABORATION

- Centers for Excellence
- Mass Production
- New Infrastructure
- New Initiatives

Quality/Productivity/Innovation
WHAT DO WE MEAN BY INNOVATION?

- new method, idea or product
- systematic application of new knowledge to new resources to produce new goods or new services

**MARKET**
- process of lowering the costs or increasing the benefits of a task

**VALUE**
- result of thinking deliberately about existing problems and unmet needs

**SOLUTIONS**

EVOLUTIONARY (incremental)

REVOLUTIONARY (disruptive/discontinuous)
WHAT DO WE MEAN BY TRANSFORM?

• to change in composition or structure

WHAT WE ARE/WHAT WE DO

• to change the outward form or appearance

HOW WE ARE VIEWED/UNDERSTOOD

• to change in character or condition

HOW WE DO IT
HOW CAN WE BUILD NEW COLLABORATION AROUND THE SCHOLARLY COMMUNICATION PROCESS?
SCHOLARLY COMMUNICATION

CREATION
EVALUATION
DISTRIBUTION
USE
PRESERVATION

SHIFTING ECONOMICS/TECHNOLOGIES/PLAYERS AND POLICIES
SCHOLARLY COMMUNICATION

• Community of Creation
• Community of Production
• Community of Distribution
• Community of Consumption
• Community of Use
The Urge To Publish

- Communication
- Academic Culture
- Preservation of Ideas
- Prestige and Recognition
- Profit
NORMS OF SCHOLARLY WORK AT THE UNIVERSITY

• Open and Free Exchange of Ideas

• Publication in Scholarly and Scientific Journals

• Meritocracy

• Organized Skepticism

• Common Ownership of Goods
SCHOLARLY COMMUNICATION FUNCTIONS

• Information Generation and Creation
• Authoring
• Informal Peer Communication
• Editorial and Validation
• Ownership, Privacy, and Security
• Distribution
• Acquisition and Access
SCHOLARLY COMMUNICATION FUNCTIONS

• Storage
• Preservation and Archiving
• Information Management
• Location and Delivery
• Recognition
• Diffusion
• Utilization of Information
THE GOALS OF THE EDUCATION COMMUNITY

Develop policies for intellectual property management which enable broad and easy distribution and reuse of materials by scholars and students and which

Foster a competitive and supportive market for scholarly communication and creative work.
RESEARCH CORE INTERESTS

• Competitive Market
• Easy Distribution and Reuse
• Innovative Applications of Technology
• Quality Assurance
• Permanent Archiving
RESEARCHER EXPECTATIONS

• Personal Advancement/Recognition
• Contributions to Scholarly Literature
• High Quality Instructional Experiences
• Successful Students
• Work on Innovative Projects
• Collaboration with Interesting Colleagues
• Financial Compensation
• Remuneration for Own Work
• Excellent Laboratory, Library and Technology Support
• Opportunities to Experiment with Technology
HOW CAN WE EFFECTIVELY ADVANCE THE PUBLISHER/LIBRARY RELATIONSHIP?
ADVANCING PUBLISHER/LIBRARY RELATIONSHIP THROUGH ELECTRONIC SCHOLARLY COMMUNICATION

• Regular consultation to develop priorities and strategies for collaboration.

• Joint innovative electronic publishing projects.

• Shared information policy agenda/advocacy strategy.

• Forums for communication with researchers and authors.

• Shared continuing professional development and training programs for staff.

• Agreement on principles for licensing/model contract.
ADVANCING PUBLISHER/LIBRARY RELATIONSHIP THROUGH ELECTRONIC SCHOLARLY COMMUNICATION

• Identification, development, adoption of standards.
• Usability research and testing.
• Research and development agenda/Impact assessment.
• Venture capital for joint activities.
• Integrate and share expertise.
• Joint programs for preservation and archiving of digital content.
• Content and information services for distance learning community.
• Focus on new scholarly work: courseware, software, datafiles and simulations
SO WHERE ARE WE GOING?
THEORY OF LIBRARY DEVELOPMENT

-1950   Period of EXCLUSIVITY
1950-1970   Period of POPULARIZATION
1970-1990   Period of DISCORD
1990-2010   Period of DECADECENCE
2010-2015   Period of POLYGAMY/KUMBAYA
2015-2020   Period of PARABIOSIS/SYNERGY
2020-       Period of PARTICULARISM
ARL STRATEGIC DESIGN AND ACTION

LIBRARY SERVICES AS 4 LAYERS OF INTERACTION

• AUGMENTED INFORMATION LENS – relationships with individual users

• BOUNDLESS SYMPOSIUM – conversations within the institution

• META-LIBRARY ECOSYSTEM ENGINE – conversations among networked institutions

• COMMUNITY KNOWLEDGE MESH – societal role
ARL STRATEGIC DESIGN AND ACTION

KEY COMPONENTS

1. Coordinated Management of Collective Collections – A Platform for Sharing Knowledge Throughout the Ecosystem

2. Scholarly Publishing at Scale

3. ARL Academy

4. Building a Boundless Symposium

5. A First Suite of Smart Libraries

6. Innovation Lab and (Venture) Capital Fund
SOME FINAL THOUGHTS

The library is being driven by five fundamental shifts. **Primal innovation:** creativity as an essential component of our organizational and individual DNA. **Radical collaboration:** new, drastic, sweeping and energetic combinations across and outside libraries. **Deconstruction:** taking apart traditional axioms and norms, removing the incoherence of current concepts and models, and evolving new approaches and styles. **Survival:** persistence and adaptation which focuses more on the “human” objectives of our users, that is success, productivity, progress, relationships, experiences, and impact. **Particularism:** deep specialization and rich responsibilities in the face of rampant shared and open resources. How do we respond to these revolutionary trends through our shifting geography, our essential expertise, and our advocacy of the public interest? How do we remain indispensable to the researcher?
WHERE ARE WE GOING?

RELEVANCE

IMPACT

VALUE

SURVIVAL

EXTINCTION

PHYLETIC – one species evolves into another

TERMINAL – termination of species/no descendants