PARABIOSIS
IN THE
ACADEMIC RESEARCH LIBRARY COMMUNITY

2CUL
AS
PARABLE OR PARADIGM OR PARAGON

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PARABIOSIS

- the joining together of two organisms so they can share a common circulation
- the natural union of two individuals
REVOLUTIONARY CHANGE

David Close (The Meaning of Revolution):

…the essential feel of revolution derives from its cataclysmic quality…
it destroys people’s security and unsettles their convictions.

Thomas Kuhn (The Structure of Scientific Revolutions):

…the transition from a paradigm in crisis to a new one from which a new
tradition can emerge is far from a cumulative process.

Karl Marx (Theory of Epistemology/Theory of Ideas):

…Ideas do not exist on their own…they are real only when they are translated
into action. Quantitative change and qualitative change.
PROGRESSIVE CHANGE

Progress - movement toward a goal
steady improvement

• All progress is based on a universal innate desire on the part of an organism to live beyond its income. (Samuel Butler)

• Those who speak most of progress measure it by quantity and not by quality. (George Santayana)

• Progress lies not in enhancing what is, but in advancing toward what will be. (Kahlil Gibran)
SOME DEFINITIONS

• Primal Innovation
  creativity as first importance, as a fundamental component of
  organizational and individual DNA

• Radical Collaboration
  drastic or sweeping energy, and not Kumbaya

• Deconstruction
  taking apart the axioms or rules, or the incoherence of a
  concept, position or word

• Survival
  not relevance or impact, but persistence and adaptation
THE CONTEXT FOR INNOVATION AND COLLABORATION

• Rapidly Shifting User Behaviors / Expectations
• Redundant Inefficient Library Operations
• Aging Service Paradigms / ATM Expectations
• Increasing Emphasis on Unique Resources
• Need to Achieve Scale and Network Effects Through Aggregation
THE CONTEXT FOR INNOVATION AND COLLABORATION

• Permanent Beta/Mutability
• Advanced Open Architecture
• Mandate for Systemic Change
• Acceleration of Collective Innovation
• New Economic Context
WHAT ARE THE CORE RESPONSIBILITIES OF THE LIBRARY?

- 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
CHANGING LIBRARY ROLES

• Libraries as Consumers
• Libraries as Intermediaries and Aggregators
• Libraries as Publishers
• Libraries as Educators
• Libraries as R&D Organizations
• Libraries as Entrepreneurs
• Libraries as Policy Advocates
THE SHIFTING VISION OF THE LIBRARY

• Legacy
• Infrastructure
• Repository
• Portal
• Enterprise
• Public Interest
HORIZON REPORT 2009
TECHNOLOGIES

• Mobiles (single, portable multi-purpose device)
• Cloud Computing (distributed processing and applications)
• Geo-Everything (geolocation and geotagging)
• Personal Web (customized management of online content)
• Semantic-Aware Applications (meaning to provide answers)
• Smart Objects (links physical world with information)
HORIZON REPORT 2009
KEY TRENDS

- Globalization (communication and collaboration)
- Collective Intelligence (ambiguity and imprecision)
- Games As Learning Tools (participation and interaction)
- Visualization Tools (more meaningful and intuitive)
- New Literacies (information, visual, technology)
- De-Formalism and De-Structuring of Scholarship
- Formal Assessment (quality and impact)
WHO ARE OUR USERS?

- Students (diversity abounds)
- Faculty (expectations galore)
- Researchers (tribal differences)
- Administration (the bottom line)
- Community (local politics)
- Working Professionals (practical applications)
- Alumni and Donors (largely ignored)
- World on the Web (the new majority)
WHERE DO WE INTERSECT WITH USERS?

- Physical Spaces
- Web Spaces
- Collections
- Services
- Applications
- Technologies
- Classroom

- Laboratory
- Bedside
- Collaborations
- Anyone
- Anywhere
- Anytime
- Anyhow
RESPOND TO USER EXPECTATIONS

- Content
- Access
- Convenience
- New Capabilities
- Cost Reduction
- Participation
- Individual Productivity
- Individual Control
- Organizational Productivity
HOW DO WE KNOW ABOUT USERS?

- Ask
- Measure
- Listen
- Observe
- Compare
- Benchmark

- Experiment
- Involve
- Prototype
- Portfolio
- Evaluate
- Experience (Aha)
ENHANCE THE STUDENT EXPERIENCE

- Technology Ubiquity
- Point-of-Need Information
- Web-based Services
- Technology Sandbox
- Privacy Space
- Social Success
- Support Services
- Information Fluency
- Post-graduate Access
- Career Assistance
ENHANCE THE FACULTY EXPERIENCE

• 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
COLLECTION DEVELOPMENT
SOME KEY ASSUMPTIONS

• Academic Research Libraries Will Continue To Develop Comprehensive Collections In All Formats

• Collections Will Seek To Align With University Academic Priorities and Funding Realities

• Coordination of Collection Development Across the Research Library Community Will Remain Marginalized

• Academic Research Libraries Will Increasingly Focus on Distinctive and Unique Collections In Service To Regional and National Scholarly Audiences
SOME ADDITIONAL ASSUMPTIONS

• Academic Research Libraries Will Build Innovative Bi-Lateral and Tri-Lateral Partnerships To Expand Content Access and Delivery

• Preservation and Archiving of the Cultural and Scientific Record Will Remain Balkanized and Episodic

• National and Global Information Policies Will Not Facilitate the Deep Collection Collaboration Needed

• Work of Collection Building Will Require New Approach To Professional Staffing and Organization
COLLECTION DEVELOPMENT

SOME ADDITIONAL ASSUMPTIONS

• Collections Will Need To Align More Intimately With Teaching and Learning Processes

• User Communities Will Create Their Own Tools For Discovering, Disseminating and Managing Content

• Academic Research Libraries Will Assume Expanded Roles As New Scholarly Communication Business Models Are Implemented

• More Focus Will Be Placed on Data Capture and Analysis To Support Collection Development Decisions
BUILD THE DIGITAL LIBRARY
QUALITY = CONTENT + FUNCTIONALITY

• Published/Licensed Content
• Primary Content
• Open Web Content
• Institutional 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
TRANSFORM SCHOLARLY COMMUNICATION

• The Urge To Publish
• Crisis In Scholarly Publishing
• Roots Of Dysfunction
• Electronic Strategies
• New Economics/Competition
• Quality Assurance
• Permanent Archiving
• Asia Factor
HIGHER EDUCATION
CORE INTERESTS

• Competitive Market
• Easy Distribution and Reuse
• Innovation Applications of Technology
• Quality Assurance
• Permanent Archiving
ADVANCE THE REPOSITORY MOVEMENT

- Discipline Repositories
- Institutional Repositories
- Departmental/School Repositories
- Individual Repositories
- Government Repositories
- National Repositories
- Publisher Repositories
SUPPORT THE NEEDS OF BIG SCIENCE

• Massive Data
• Unstructured Data/Curation
• Extraction
• Distribution
• Collaboration
• Visualization
• Simulation
SUPPORT GLOBALIZATION GOALS OF UNIVERSITY

• International Collections
• International Students/Researchers
• Faculty Research Collaboration
• Challenges Of Language
• Challenges Of Standards
• Challenges Of Law
• Challenges Of Culture
RETHINK LIBRARY SPACE PLANNING AND IDENTITY

- Trompe L’oeil Library
- Library Use Trends
- Technology As Catalyst
- Learning Space
- Social Space
- Collaborative Space
- Flexibility And Adaptability
PARTICIPATE IN THE ENTREPRENEURIAL ACADEMY

- LEVERAGING ASSETS
- NEW CUSTOMERS/MARKETS
- FINANCIAL MANDATE
- COMPETITIVE MANDATE
- PRESTIGE MANDATE
- DEVELOPMENT AND RISK CAPITAL
- BUSINESS PLANNING
- CULTURAL FIREWALLS
SETTING THE R&D AGENDA

INDIVIDUAL INTEREST

PROFESSIONAL IMPORTANCE

R&D AGENDA

ORGANIZATIONAL PRIORITY

NATIONAL NEED
THE R&D ENTERPRISE IN THE LIBRARY

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

- Potential for Capitalization/Technology Transfer
- Foundation and Federal Funding
- Library Credibility and Visibility
- Support for Decision Making
- Organizational Culture
- Digital Library Program Development
- Organizational Risks
PROMOTE 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
SOME REQUIREMENTS

• Bi- and Tri-Lateral Combinations
• Sustainability/Business Plan
• Legal Framework
• Governance Structure
• Risk Capital
• Competitive Spirit
ARENAS FOR COLLABORATION

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

Quality/Productivity/Innovation
2CUL PROJECT

What is 2CUL?

A transformative and enduring partnership between two major academic research libraries based on a broad integration of resources, collections, services and expertise.
2CUL PROJECT

Why the Columbia and Cornell University Libraries?

- Major research libraries
- New York state
- Private Ivy institutions
- Similar academic characteristics
- Record of collaboration
- Record of innovation
- Budget challenges
- Will and interest
2CUL PROJECT

Where have research libraries successfully collaborated?

• Licensing of electronic resources
• Cooperative cataloging
• Interlibrary loan/document delivery
• Information policy advocacy
• Offsite shelving facilities
• Digital archiving
2CUL PROJECT

What are the goals of 2CUL?

• Achieve major integration of operations, services, collections and resources

• Reduce cost of overall library activities to direct resources to new priority areas

• Increase revenues through joint proposals for funding, new products and services, and business opportunities marketed to academic and research customers

• Establish an independent service entity and governance structure that supports 2CUL

• Expand 2CUL beyond initial partners, and model collaboration for other groups of research libraries and for other divisions at the university
2CUL PROJECT

Where are we initially focusing our work?

- Technical services (acquisitions, cataloging, e-resource management)
- Collection development/global resources
- Technology infrastructure/digital preservation
- Communications
- Resource development
- New services for students and faculty
- New business/entrepreneurial services for other libraries
- Business planning and governance
CLOUD LIBRARY PROJECT

- Print Repository
  Research Collection and Preservation Consortium

- Digital Repository
  Hathi Trust

- Digital Surrogate
  Google Books Public Domain Content

- Research Library User Services/Collection Management
  New York University Libraries
CLOUD LIBRARY PROJECT

- Aggregate Collection Analysis/Overlap Study
- Library Risk Assessment
- Service Requirements/Expectations
- Model Service Agreements
- Business Models/Implementation Plan
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
MARKET THE LIBRARY

• Match Capabilities of an Organization with Needs and Wants of Communities Served

  • Existing Products to Existing Markets
    MARKET PENETRATION

  • Existing Products to New Markets
    MARKET EXTENSION

  • New Products for Existing Markets
    PRODUCT DEVELOPMENT

  • New Products for New Markets
    DIVERSIFICATION
DEVELOP NEW RESOURCES
FUNDING STRATEGIES

• Operating Budget Reallocation
• New Operational Resources
• External Fundraising
• Research/Service Grants
• Co-Investment
• Public/Private Partnerships
• Technology Transfer
• Entrepreneurial/New Business Development
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
BUILD NEW ORGANIZATIONAL MODELS

• Conventional Administrative Hierarchy and Academic Governancy/Bureaucracy

• Centralized Planning and Resource Allocation Systems and Loosely Coupled Academic Structures and Maverick Units and Entrepreneurial Enterprises
SOME INSTITUTIONAL ACTIONS

• Build the Campus Technology Infrastructure

• Bring Information Services and Academic Computing Together

• Massively Redeploy Library Space For Academic Collaborations

• Organize Systematic Usability/Assessment Capability

• Align Resources To A New Uniqueness/Stewardship Model

• Advance Policy Education and Advocacy Role
FURTHER INSTITUTIONAL ACTIONS

• Market Resources and Services For Penetration and Diversification

• Create Web Harvesting Capacity As Part of Collections Program

• Partner With Faculty On Research Data Capture, Curation and Archiving

• Rethink Literary Education Role of Library

• Creatively Invest Collection Funds For Discovery, Access and Archiving

• Leadership for Research Information Management
SOME COLLECTIVE ACTIONS

• National Program of Mass Digitization of Collections

• Global Partnership Among National Digitization Efforts

• More Systematic and Rigorous Approach to Standards and Best Practices

• National Program of Research Library R&D

• Accelerate Concept to Market for Systems and Tools

• New Scholarly Communication Business Models and Assessment Strategies
FURTHER COLLECTIVE ACTIONS

• Connections With South Asia and East Asia

• Professional Staff Preparation and Development

• Investments In Policy Action For Openness and Barrier Free Access

• National Program For Preservation/Leadership and Priorities

• Investigate Appropriate Public-Private Partnerships

• Radicalize Research Library Working Relationships
HOW DO WE FEEL?

• **Anxious** - an abnormal and overwhelming sense of apprehension and fear

  “Our age of anxiety is, in great part, the result of trying to do today’s jobs with yesterday’s tools.”

  Marshall McCluhan

• **Disrupted** - interruption of normal course or unity, thrown into disorder

  “One of the litmus tests is that a disruptive technology enables a larger population of less skilled people to do things that historically only an expert could.”

  Clayton Christensen
  The Innovator’s Dilemma

• **Chaotic** - state of utter confusion, unpredictability in the behavior of complex systems

  “Chaos often breeds life, when order breeds habit.”

  Education of Henry Adams