



# Bamboo

## Planning Project Update

David Greenbaum, Univ. of California, Berkeley  
Chad J. Kainz, Univ. of Chicago

8 December 2008

Bamboo is made possible through the support of the Andrew W. Mellon Foundation.

faculty

researchers

computer scientists

information scientists

librarians

content partners

information technologists

professionals

**innovation**

Bamboo is a community-driven cyberinfrastructure initiative that includes **faculty** and **researchers** engaged in humanistic inquiry, **computer scientists** and **information scientists** interested in innovative models for shared services, and **librarians**, academic **content partners**, campus **information technologists** and other **professionals** who want to work together across disciplinary, organizational, institutional, and geographical boundaries to better enable and foster **innovation** in the **arts and humanities**.

# 1987

“...we encourage the support of **interdisciplinary research teams**, rather than just facilities, to ensure that long-term visualization developments be **grounded in real problems.**”

One recommendation was that teams should include **computer scientists and engineers, visualization scientists, systems support personnel, artists, and cognitive scientists.**

“Visualization in Scientific Computing” edited by Bruce McCormick, Thomas A. DeFanti, Maxine Brown. *Computer Graphics*, vol. 21 no. 6, November 1987

How can we advance  
arts and humanities research  
through the development  
of shared technology services?

Handwritten Greek text in a medieval script, likely a lectionary fragment. The text is written in black ink on aged, yellowish parchment. It features several lines of text with various diacritical marks and symbols above the letters, including a large cross-like symbol. The text is partially obscured by a large, dark, irregular ink blot on the right side.

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**1/3 time** spent on research and scholarship  
**2/3 time** sorting through technology





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**1/3 time** sorting through technology





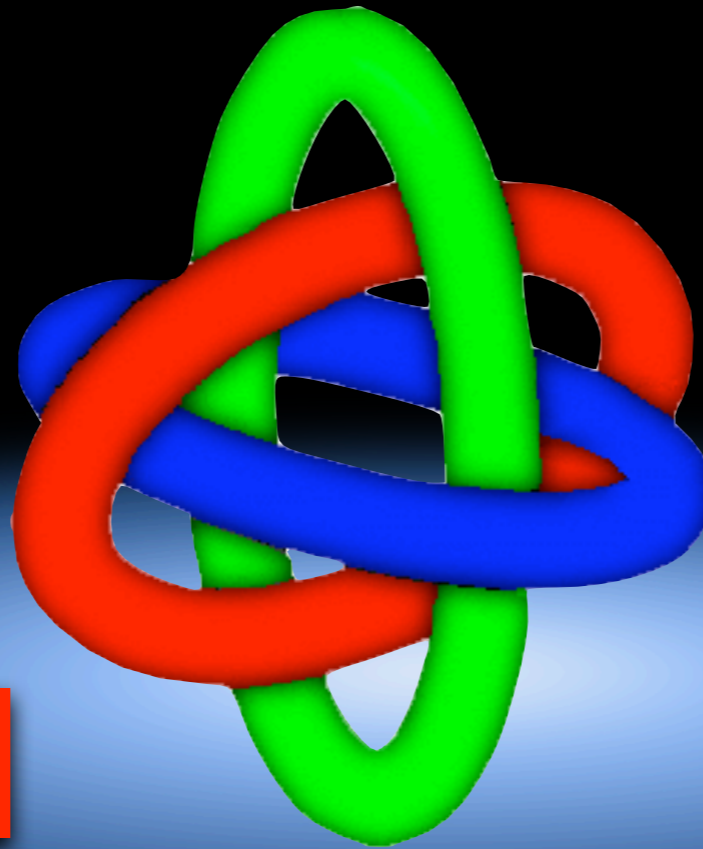
# Borromean Ring Teams

National Science Foundation vision for cyberinfrastructure.

Behavioral &  
Organizational Sciences

Users,  
Communities of Practice,  
Organizations in Society

Computer & Information,  
Science & Engineering



- Relationships of mutual respect.
- Relationship of mutual benefit within the norms of the “ring community.”
- Participatory, iterative design, use, evaluation.
- A culture of collective reward.
- To be a bit eccentric (can't be circles)

**\*Three symmetric, interlocking rings, no two of which are interlinked.  
Removing one destroys the synergy.**



For the humanist, the library is his or her laboratory,  
the place in which is found, or hidden,  
the raw materials for research.

Section III.4: *Library and Scholarly Communications*  
Bamboo Planning Proposal



Image courtesy John Laudun  
Department of English, Univ. of Louisiana, Lafayette

The library is not **raw**...



The library is not **raw**...  
the world is

**RAW**

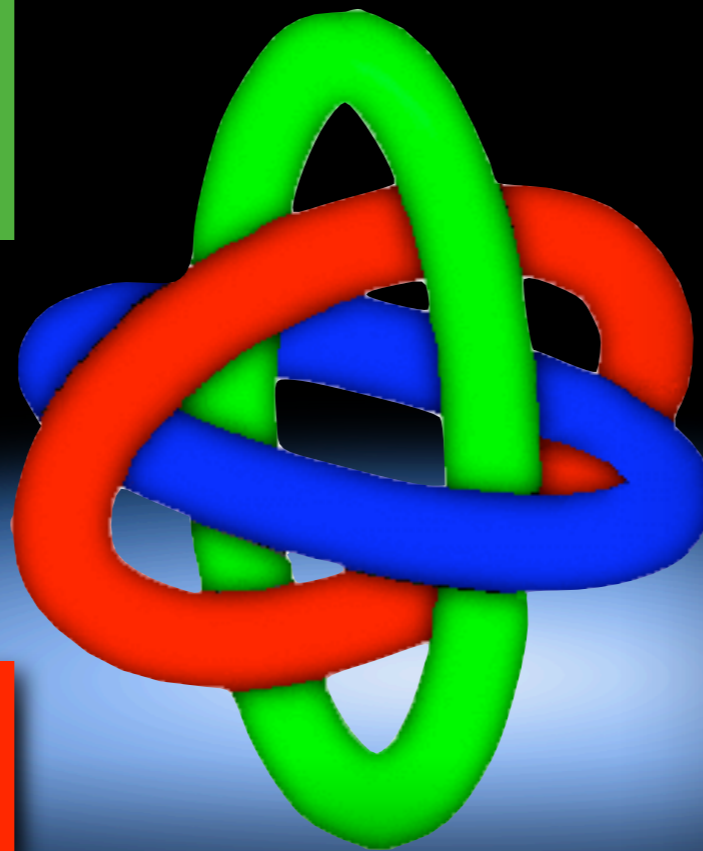
**John Laudun**

Assistant Professor, English & Folklore, Univ. of Louisiana, Lafayette  
Bamboo Workshop 1b, Chicago, May 16, 2008

# Bamboo Vision of Cyberinfrastructure

Growing and deep **understanding of practices, directions, commonalities** in the arts and humanities among humanists, librarians, technologists, etc., now and in the future

understanding of practices  
and commonalities



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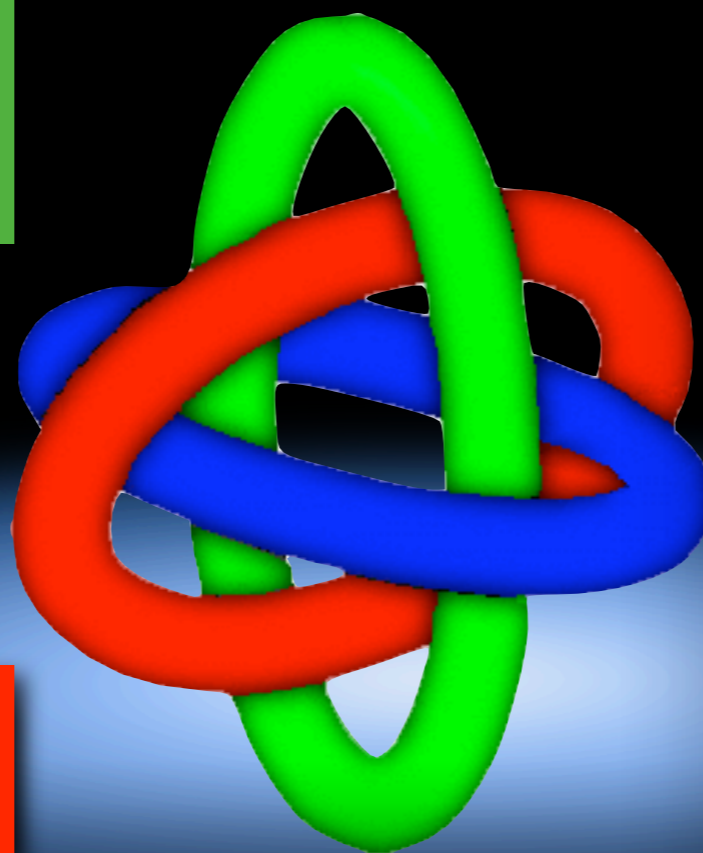
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# Bamboo Vision of Cyberinfrastructure

**Shared technology services** from across the world that can easily be discovered, used, combined, integrated into key research and teaching practices and projects

understanding of practices  
and commonalities

shared technology  
services



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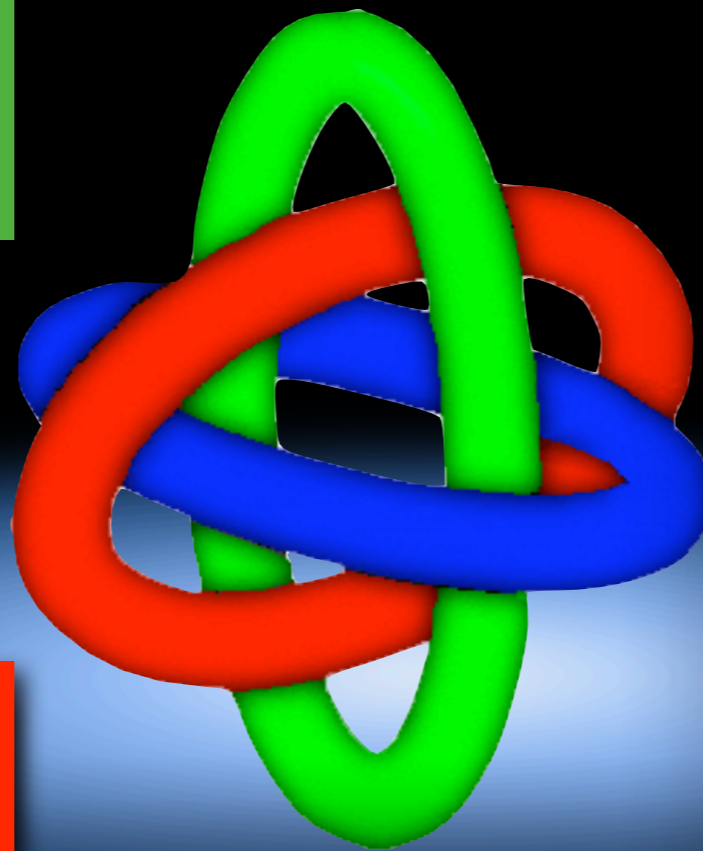
# Bamboo Vision of Cyberinfrastructure

Evolving and stable **organizational, partnership, and social models** to support academic innovation using technology within and between campuses and other key organizations

understanding of practices  
and commonalities

shared technology  
services

organizational, partnership,  
and social models



- Relationships of mutual respect.
- Relationship of mutual benefit within the norms of the “ring community.”
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**\*Three symmetric, interlocking rings, no two of which are interlinked.  
Removing one destroys the synergy.**

# A Patron Saint for Cyberinfrastructure for the Humanities

## Benjamin Franklin

“I would like to propose a patron saint for cyberinfrastructure, something that, remarkably, we forgot to do in the ACLS report. My nominee is Benjamin Franklin. Why Ben, you might ask? It is partly that Franklin was a tinkerer with new technologies, a printer and a publisher, someone who established the first circulating library in the US, a politician with more than a dash of provocateur, and a pragmatist who figured out some important aspects of how to make revolution sustainable. Franklin was also famous for his maxims, and one of the best known of those he delivered at the Continental Congress just before signing the Declaration of Independence. On that occasion, he said: *We must, indeed, all hang together, or most assuredly, we shall hang separately.*”

That's my short-hand definition of cyberinfrastructure, actually – ***the environment in which we all hang together, as opposed to the one in which we all hang separately.***”

**John Unsworth**, University of Illinois at Urbana-Champaign  
from Bamboo Workshop 1d (Princeton)



# Bamboo is *currently* a Planning Project

- Spans 18 months from April 2008 - September 2009
- Goal of building a consortium of universities, colleges, and other organizations who will work together to advance arts and humanities teaching and research through the development of shared technology services
- Participating institutions and organizations will help to define the final scope of Bamboo, and formulate a set of activities, processes, and projects that will guide implementation and shape the community that supports it.
- Major deliverable at the end of planning project is the submission by this consortium of a Bamboo Implementation Proposal to the Andrew W. Mellon Foundation
- If successful, implementation would begin in late Fall 2009

profiles (same idea as SCORM?)  
disciplinary standards  
industry norms  
specifications

## standards

## technology services

loosely-coupled  
discoverable  
sustainable  
predictable  
mashable  
reusable  
reliable  
flexible

## practices

research and teaching  
partnerships and support  
qualitative and quantitative  
methodologies and protocols

Nearly 500 people from over 100 institutions and organizations have taken part in planning Bamboo

COLLABORATION  
 Research - find, gather, clean, subjects, data, primary sources  
 Press-driven, Faculty-driven  
 Publish - look for new sites, make a new site  
 Edit, Review, IMPROVE  
 MEDICATION  
 FUND (GET) - find templates, find sources  
 CONFERENCE FOLLOW UP  
 MEET / NETWORK / TALK - attend  
 WRITING, AUTHORIZING, COMPOSING  
 VECTORS (JOURNAL)  
 SOPHIE PROJECT.ORG

American Council of Learned Societies (ACLS)  
 American Numismatic Society  
 American School of Classical Studies at Athens  
 Andrew W. Mellon Foundation  
 Arizona State University  
 Arts & Humanities Research Council (AHRC)  
 ARTstor  
 Assn. for Computers and the Humanities (ACH)  
 Australian National University  
 Blackboard Inc.  
 British Library  
 Brown University  
 Cambridge University  
 Carleton College  
 Chicago State University  
 City Univ. of New York  
 Columbia University  
 Cornell University  
 Council on Library & Information Resources (CLIR)  
 Dartmouth College  
 Deutsche Forschungsgemeinschaft  
 Digital Library Federation (DLF)  
 Documents Compass  
 Dominican University  
 Eastern Kentucky University  
 Eastern Michigan University  
 Fabula  
 Federation of American Scientists  
 Fedora Commons  
 Fine Arts Museums of San Francisco  
 Freiburg Inst. for Advanced Studies  
 George Mason University  
 George Washington University  
 Getty Research Institute  
 Harvard University

Humanities Serving Irish Society  
 Iconographic Mythologiae Classicae  
 Indiana University  
 Inst. of Museum & Library Services  
 Intelligent Television  
 Johns Hopkins University  
 JISC  
 JSTOR  
 Lake Forest College  
 Loyola Marymount University  
 MIT  
 Michigan State University  
 Microsoft Research  
 Middlebury College  
 National Endowment for the Humanities (NEH)  
 National Inst. for Technology in Liberal Education (NITLE)  
 New York Public Library  
 New York University  
 Northwestern University  
 OCLC  
 Open University  
 Oxford University  
 Pennsylvania State University  
 Princeton University  
 Purdue University  
 San Jose State University  
 Smith College  
 SEASR Project  
 Stanford University  
 Sun Microsystems  
 Technische Universität Darmstadt  
 The Long Now Foundation  
 Tufts University  
 California Digital Library  
 Univ. of California Press  
 United Board  
 Université François-Rabelais, Tours  
 Université Paris IV, Sorbonne

Université Paris X, Nanterre  
 Univ. at Buffalo (SUNY)  
 Univ. of Arizona  
 Univ. of California Humanities Research Institute  
 Univ. of California, Berkeley  
 Univ. of California, Irvine  
 Univ. of California, Los Angeles  
 Univ. of California, San Diego  
 Univ. of California, Santa Cruz  
 Univ. of Chicago  
 Univ. of Colorado, Boulder  
 Univ. of Edinburgh  
 Univ. of Goettingen  
 TextGrid Consortium  
 Univ. of Illinois, Urbana-Champaign  
 Univ. of Iowa  
 Univ. of Kansas  
 Univ. of Louisiana at Lafayette  
 Univ. of Maryland  
 Univ. of Melbourne  
 Univ. of Michigan  
 Univ. of Minnesota  
 Univ. of North Carolina, Chapel Hill  
 Univ. of Pennsylvania  
 Univ. of Puget Sound  
 Univ. of Southern California  
 Univ. of Tennessee, Knoxville  
 Univ. of Toronto  
 Univ. of Virginia  
 Univ. of Washington  
 Univ. of Wisconsin, Madison  
 Villanova University  
 Vox Populis PT  
 Washington & Lee University  
 Willamette University  
 William Paterson Univ. of NJ

# Guidance to Governance

## Principal Investigators

**Janet Broughton**  
Dean of Arts & Humanities,  
Univ. of California, Berkeley

**Gregory A. Jackson,**  
Vice President/CIO, Univ. of  
Chicago

## Leadership Council

**Anthony Cascardi**  
Director, Doreen B.  
Townsend Center for the  
Humanities, Univ. of  
California, Berkeley

**Judith Nadler**  
Director, Univ. of Chicago  
Library

**James Chandler**  
Director, Franke Inst. for the  
Humanities, Univ. of  
Chicago

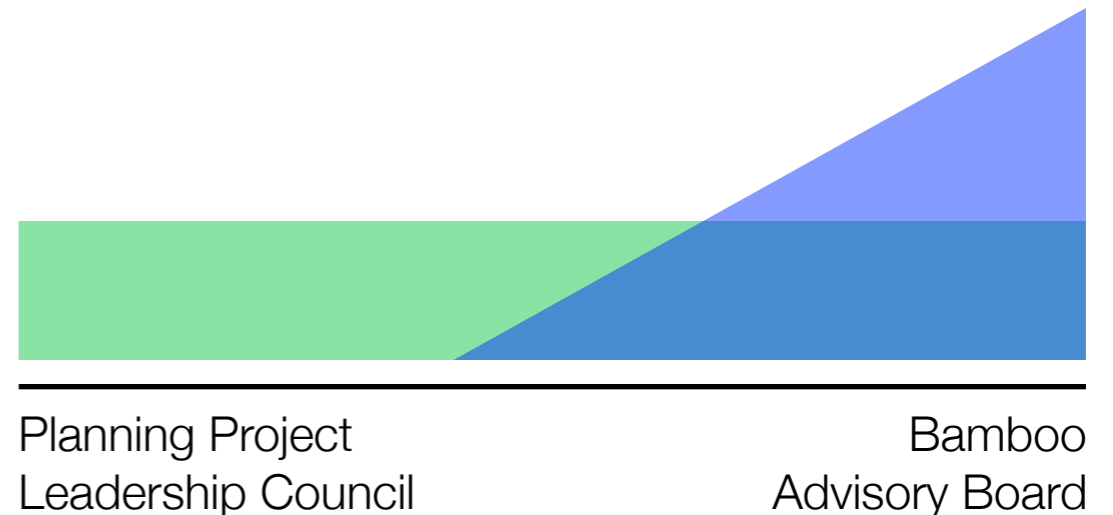
**Martha Roth**  
Dean of the Division of  
Humanities, Univ. of  
Chicago

**Charles Faulhaber**  
Director, Bancroft Library,  
Univ. of California, Berkeley

**Stuart Russell**  
Chair, Electrical Engineering  
and Computer Science,  
Univ. of California, Berkeley

**Ian Foster**  
Director, Computation  
Institute, Univ. of Chicago

**Shelton Waggener**  
Assoc. Vice Chancellor/CIO,  
Univ. of California, Berkeley



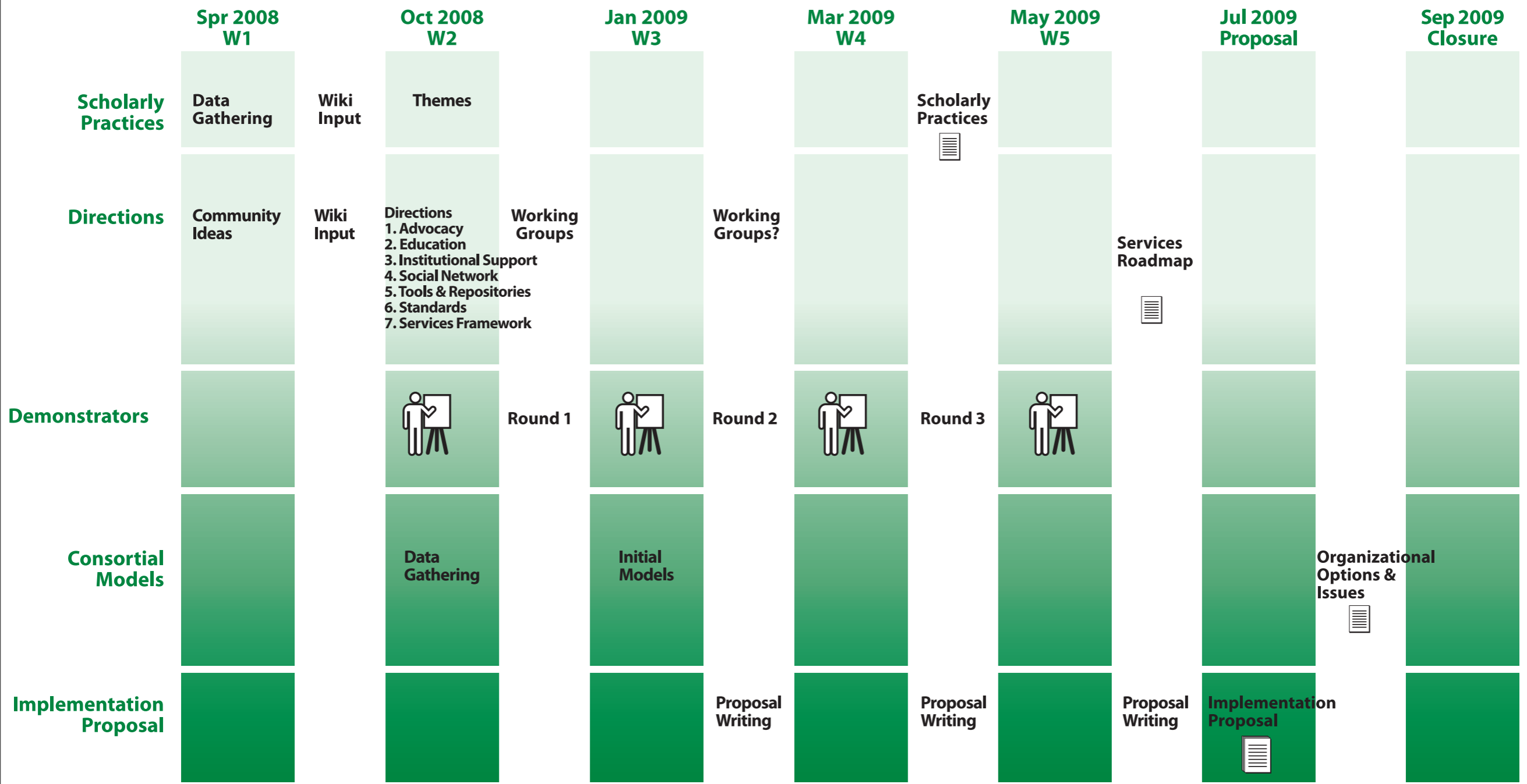
The approach ... is one rooted in **creating, reusing, remixing, and sharing technology services across project, institutional, organizational, regional, and national boundaries** ... if we can share technologies and content in common ways, we will be able to **reduce the overall effort** in the long term to create new digital projects, **increase the potential for greater innovation** as more effort can be placed on new ideas rather than recreating existing solutions, **take best advantage of specialized skill sets** across the various communities to solve problems, and **leverage institutional and community-wide economies of scale** to tackle problems and sustain critical projects.

From <http://projectbamboo.org/preliminary-scope-october-2008>

Based on the work to date on the planning project, the **preliminary focus of Bamboo includes education** [and **professional development**], **scholarly networking, tool and content interoperability**, building and sustaining **partnerships** both within institutions and across the community, and the **services framework** that is fundamental to Bamboo.

As of October 2008

From <http://projectbamboo.org/preliminary-scope-october-2008>



# Workshops

## 1. Understanding Arts and Humanities Scholarship

- April 2008: Berkeley (1a)
- May 2008: Chicago (1b)
- June 2008: Paris (1c)
- July 2008: Princeton (1d)



2. Workshop Two (October 15-18, 2008)

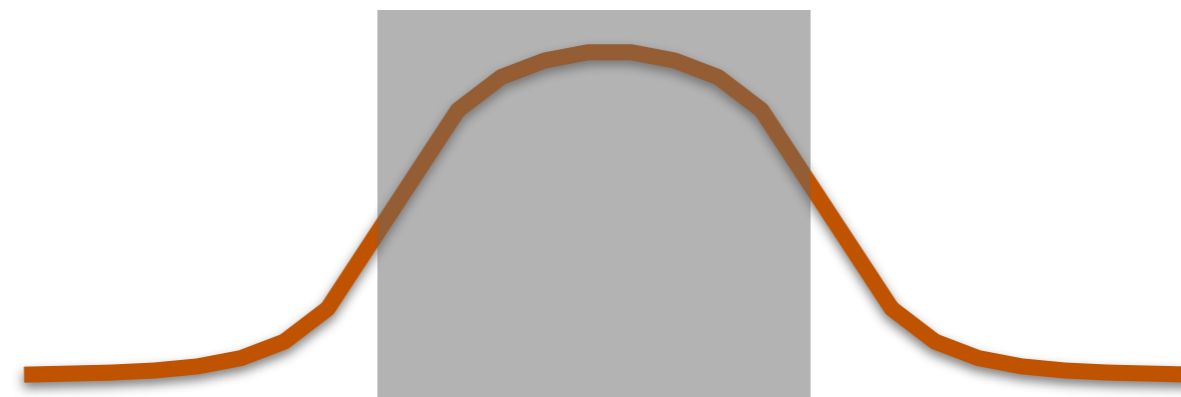
3. Workshop Three (January 12-14, 2009)

4. Workshop Four (March 2009)

5. Workshop Five (May 2009)



the original plan was to explore practices to discover what was  
**common**  
and then fill the gaps

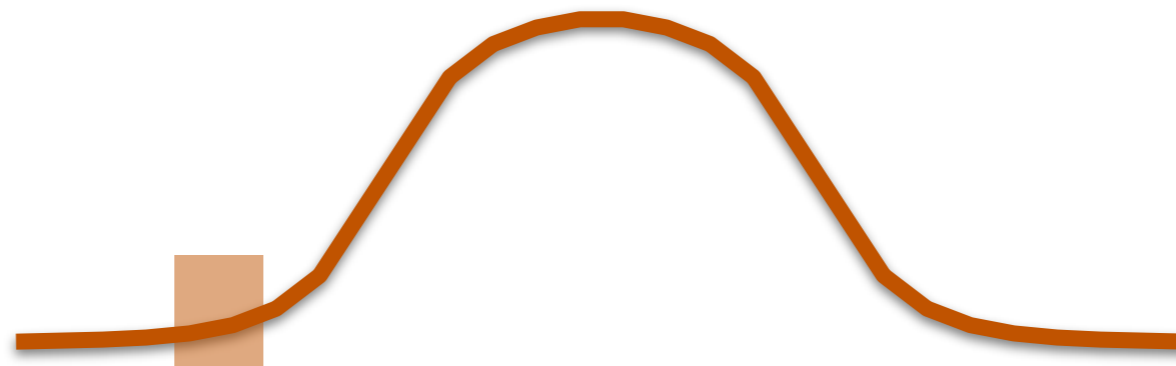


continuum of  
practices across  
disciplines

we learned that our plan could  
lead us toward unintentional

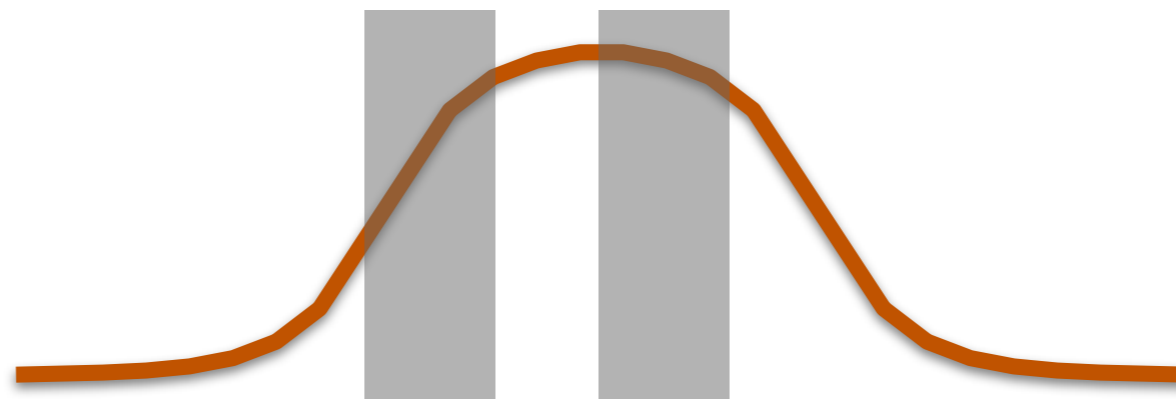
## normalization

... a serious concern raised by faculty  
attending Workshop 1a



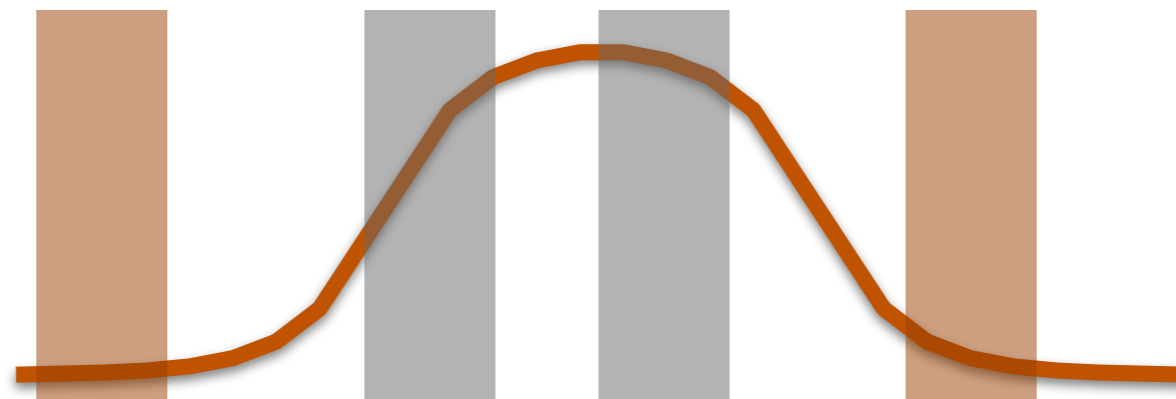
instead of proceeding down the **wrong path**,  
we changed the plan.

start by finding some things in  
**common**



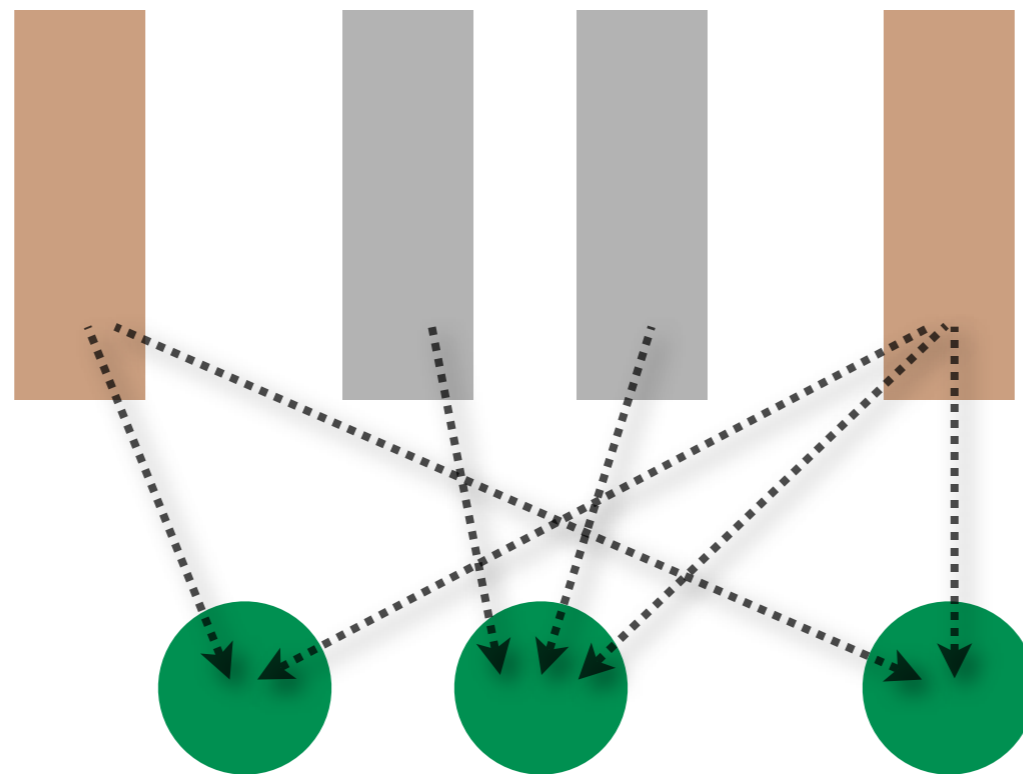
instead of proceeding down the **wrong path**,  
we changed the plan.

start by finding some things in  
seek out the **un**common



and **don't** be concerned  
with the gaps...

organize common and uncommon practices  
into **themes**



use **themes** rooted in current practice  
to inform and shape  
Bamboo **services**



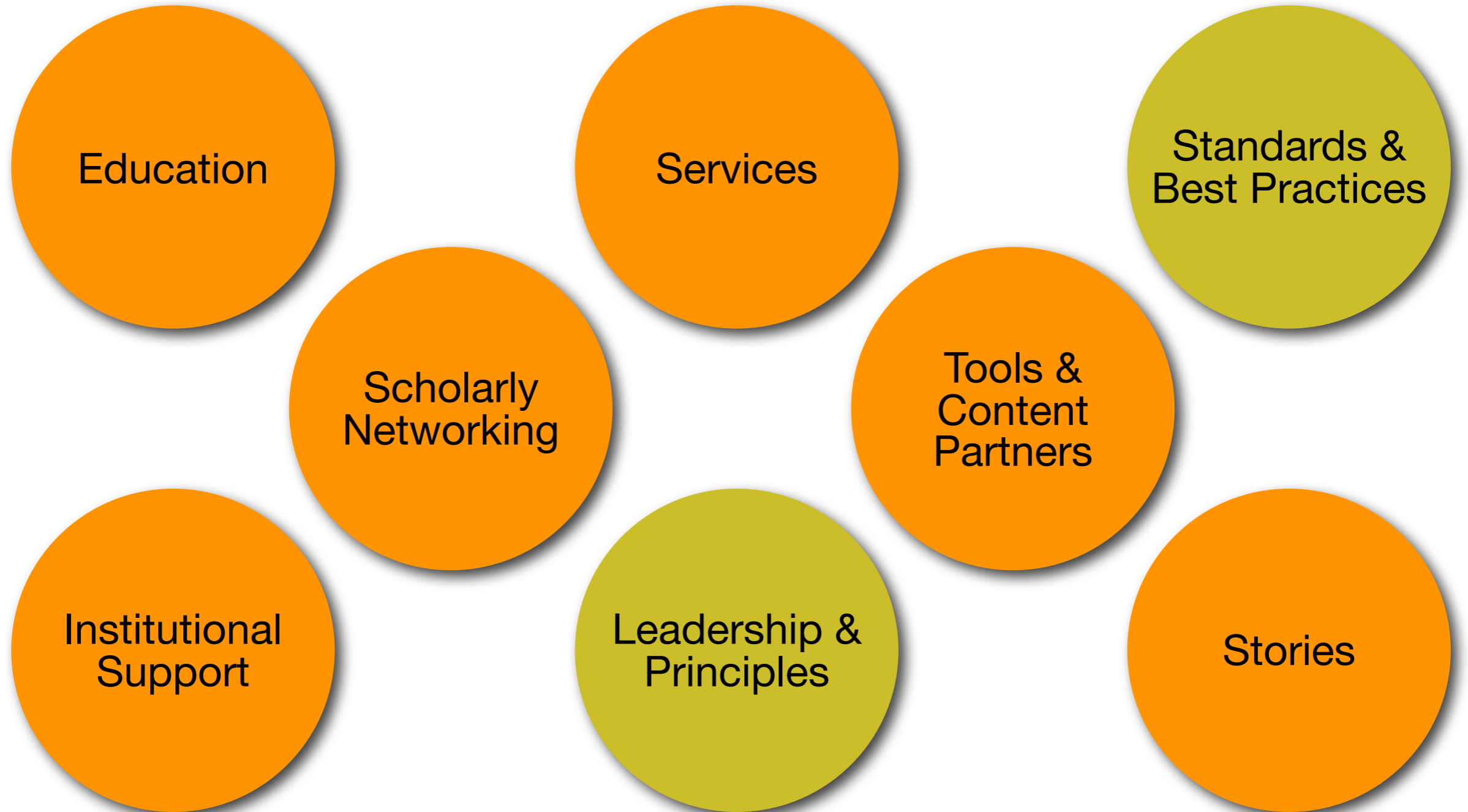
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# Working Groups

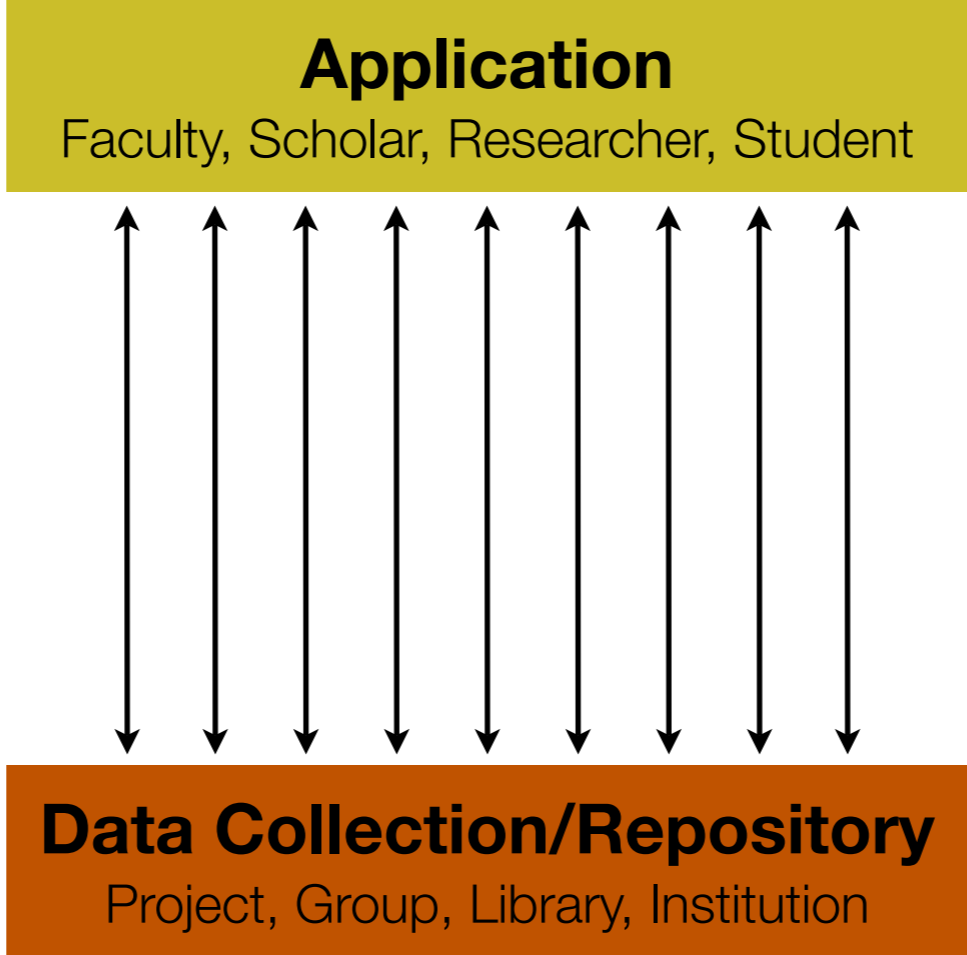


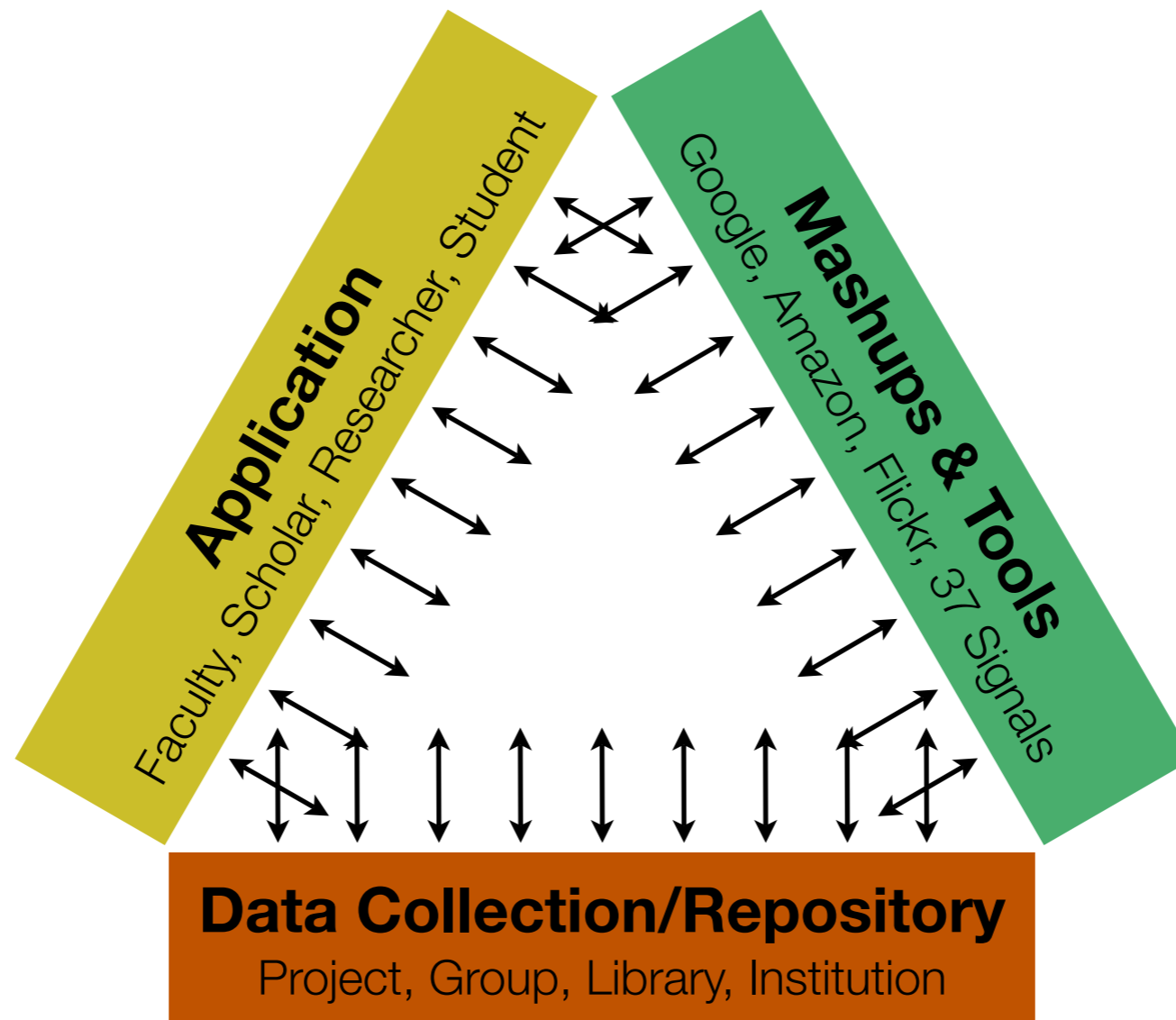


# Demonstrators

The purpose of inter-workshop demonstrators is to test ideas and illustrate concepts that can be shared with Bamboo participants.

- Explore commonalities uncovered in the workshops
- Demonstrate the shared services approach to participants
- Experiment with new application models
- Promote opportunities for technological collaboration across disciplines, organizations, and institutions





# Documents

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1. Report derived from Workshops One through Three:  
*Scholarly Practice in the Arts and Humanities*
2. Report derived from Workshops Two through Four:  
*Arts and Humanities Services Roadmap*
3. Report derived from Workshops Four and Five:  
*Organizational Options and Issues for Building Bamboo*
4. Proposal: *Bamboo Implementation Project*

# Principles of Community Design

- ▶ be guided by a framework of broad goals backed by a commitment to action
- ▶ calibrate the planning process through community feedback
- ▶ create an “upward spiral of conversation”  
Janet Broughton, UC Berkeley
- ▶ conduct a “listening tour”  
Dan Cohen, George Mason University
- ▶ search for commonalities with respect for context and uniqueness
- ▶ turn to the community to define responsibilities and priorities
- ▶ firmly respect “we”

“What is Bamboo?”  
from Workshop 1a (Berkeley),  
April 2008

BAMBOO ENABLES A SOCIAL  
NETWORK OF SCHOLARS  
& IT, REPOSITORIES  
& INSTITUTIONS  
TO SHARE TOOLS  
TECHNOLOGIES & PVI  
DIGITAL RESOURCES  
ACCORDING TO PROTOCOLS  
& STANDARDS THAT  
REFLECT IDEALS OF  
OPENNESS & NEW  
MODELS OF PUBLICATION  
& SCHOLARLY OUTPUT  
LEVERAGE INVESTMENTS BY  
INSTITUTIONS & FUNDERS



In the natural world, bamboo is a **highly flexible organic** material **that serves multiple purposes**: it can live as a single stalk on a desk or grow quickly into renewable forests; be used for constructing buildings or decorating them; become as strong as hardwood or as flexible as cloth; and can be lashed together to keep water out as in a boat or transport water as in a pipe. We envision the **project** as being quite similar: **sustainable, configurable, flexible, and reliable** – hence the name **Bamboo**.



“When we look back five or ten years from now, what will it be about our current lives that will leave us marveling at what we now fail to know? That’s a really exciting question to me.”

Janet Broughton, Dean, Arts and Humanities, UC Berkeley