



## Report from the Bamboo Planning Project

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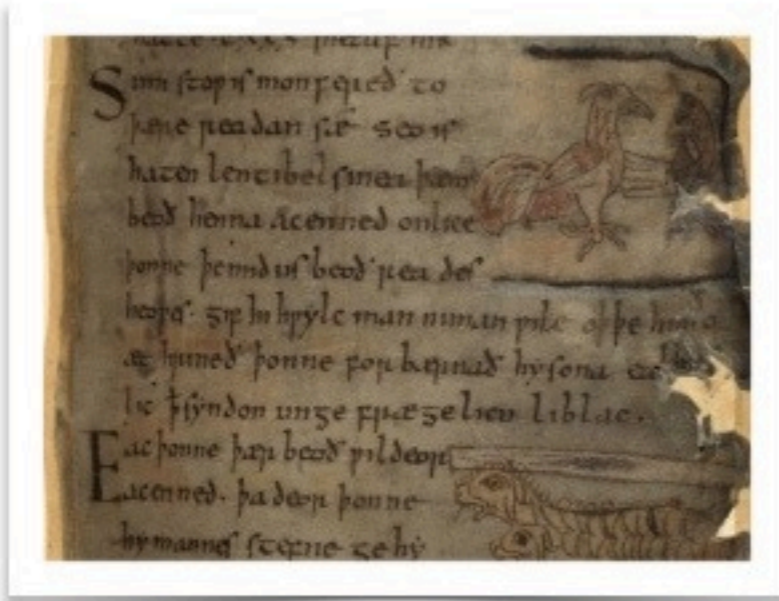
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CNI Fall Task Force Meeting, Washington D.C., December 2009  
The Bamboo Planning Project is funded by the Andrew W. Mellon Foundation.



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





What if **2/3 time** was spent on research and  
**1/3 time** directed toward technology?



Both the **5%** and **95%** of arts and humanities scholars...

**...should work across** fields and disciplines, and **engage** libraries, museums, humanities centers, information schools, technology organizations, and other institutions **to support the digital evolution** of the arts and humanities.

# Fundamental Question

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

# Original Planning Project Goal & Objectives

from the Bamboo Planning Proposal, public revision, 28 January 2008, pages 21-23

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...identify, through a series of facilitated workshops carried out over 18 months, a blueprint and core set of institutions to build and deliver shared services for the arts, humanities, and interpretive social sciences.

1. Carry out a **community planning and design** process...
2. Develop a[n] ... **understanding of humanities scholarship and artistic practice** which can be used to guide technology services design and organizational models for delivery.
3. Develop a community-endorsed **technology services roadmap**...
4. Identify **organizational, staffing, and partnership models** to support the on-going provision of these services.
5. Identify a **community of collaborators** who want to work toward the vision of Project Bamboo
6. Produce a **proposal**...

# Workshop Approach

Original proposal outlined a program of **seven workshops**, an array of documents, and a set of pilot projects to engage an estimated **65 institutions** and **200 people** who would work together in a community design process through September 2009.

We anticipated that **15 institutions** would continue through to the end of the planning project, and that between **five and seven** would take part in implementation.

We had to add an eighth workshop to meet demand

Over 114 institutions and organizations took part

Over 600 people were engaged in the community design process

30+ institutions had reps. at the last workshop

Between 7-10 institutions are interested in implementation



# Current List of Participants

based on attendance at Workshop 5 and active contribution to the planning process

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American Academy of Religion

Australian National University

Brown University

Cambridge University

Carleton College

Case Western Reserve

CUNY, Graduate Center

Dartmouth College

Ithaka/JSTOR

Microsoft Research

Northwestern University

Open University

Oxford University

Pennsylvania State University

Tufts University

San Jose State University

Washington & Lee University

University of Alberta

University of California, Berkeley

University of Chicago

University of Illinois, Urbana-Champaign

University of Louisiana, Lafayette

University of Maryland

University of Michigan

University of Minnesota

University of North Carolina, Chapel Hill

University of Puget Sound

University of Rome, Sapienza

University of Virginia

University of Wisconsin, Madison

Willamette University

CenterNet

CHAIN: Coalition of Humanities & Arts  
Infrastructures & Networks

# **Bamboo Planning Project Timeline**

## Bamboo Launched 14 March 2008



Berkeley and Chicago receive word that the Mellon Foundation approved the proposal.

April 2008

### NITLE Summit

3 April 2008 - 5 April 2008

First public announcement of Project Bamboo.  
San Francisco, CA

### CNI Spring Task Force Meeting

7 April 2008 - 8 April 2008

Bamboo presentation at the Coalition for Networked Information Spring Task Force Meeting.  
Minneapolis, MN

### Bamboo Kick-Off Meeting

14 April 2008 - 15 April 2008

Initial coordination meeting of the Berkeley and Chicago

### Bamboo Workshop 1a

28 April 2008 - 30 April 2008

Bamboo workshop sponsored by the University of California, Berkeley, Berkeley, California

### TICFA

2 May 2008

Bamboo presentation at the TICFA meeting.  
Chicago, IL

### Bamboo Workshop 1b

15 May 2008 - 17 May 2008

Bamboo workshop sponsored by the University of Chicago, Chicago, IL

## Bamboo Workshop 1a

28 April 2008 – 30 April 2008



Bamboo workshop sponsored by the University of California, Berkeley.  
Berkeley, California

CSG Meeting  
14 May 2008

Bamboo presentation at the Common Solutions Group meeting.  
Ann Arbor, MI

ARL Meeting

22 May 2008 – 23 May 2008

Bamboo presentation at the Association of Research Libraries meeting.  
Coral Gables, FL

Bamboo Workshop 1c  
9 June 2008 - 11 June 2008

Bamboo European workshop sponsored by the University of Chicago.  
Paris, France

the TICFA meeting.

a Digital Humanities Collaboratory Conference  
2009 – 7 January 2009

boo presentation. Hosted by CRASSH, Cambridge  
University  
Cambridge, UK

### Bamboo Workshop 3

12 January 2009 – 14 January 2009



Bamboo workshop sponsored by the University of  
Arizona.

Tucson, AZ

February 2009

Bamboo Leadership Council Meeting  
April 2009

Bamboo Workshop 4  
16 April 2009 - 18 April 2009



Bamboo workshop sponsored by Brown University  
Providence, RI

Internet 2 Meeting  
28 April 2009 - 30 April 2009

Bamboo panel presentation at the Internet 2 meeting

Bamboo Implementation Proposal 0.2  
7 May 2009

Bamboo Institutional Conference Calls  
8 May 2009 - 16 June 2009

## Bamboo Program Document 1.0

7 April 2009



First public draft of the 7-10 year scope and vision of  
Bamboo.

May 2009

Internet 2 Meeting

28 April 2009 – 30 April 2009

Bamboo panel presentation at the Internet 2 meeting.

Bamboo Implementation Proposal 0.2  
7 May 2009

Bamboo Workshop 4

16 April 2009 – 18 April 2009



Bamboo workshop sponsored by Brown University.  
Providence, RI

Bamboo Leadership Council  
1 May 2009



15 May 2009

May 2009

June 2009

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Boston, MA

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12 June 2009

Bamboo Workshop 5

17 June 2009 – 19 June 2009

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Providence, RI

Bamboo

18 June 2009

Bamboo

19 June 2009

Bamboo

20 June 2009

Bamboo

21 June 2009

Bamboo

22 June 2009

Bamboo

23 June 2009

Bamboo

24 June 2009

Bamboo

25 June 2009

Bamboo

26 June 2009

Bamboo

27 June 2009

Bamboo

28 June 2009

Bamboo

presentation at the Internet 2 meeting.

Bamboo Implementation Proposal 0.2  
7 May 2009



Uninet  
9 June 2009 - 11 June 2009  
Bamboo presentation at the Uninet Conference  
Halder, Norway

Bamboo Implementation Proposal 0.5  
12 June 2009

Bamboo Workshop 5  
17 June 2009 - 19 June 2009  
Bamboo workshop sponsored by the University of  
California, Berkeley  
Washington, DC

## Bamboo Institutional Conference Calls

8 May 2009 - 16 June 2009



Initial conversations with institutions regarding interest and investment in Bamboo.

Leadership Council

Bamboo Implementation Proposal 0.3  
15 May 2009



Bamboo Leadership Council Meeting  
2 June 2009



June 2009


July 2009



... 2009  
... presentation at the Uninett Conference.  
... rway

... Implementation Proposal 0.5  
... 2009

Bamboo Member/Partner Discussions  
3 July 2009 – 9 October 2009

 Conversations with tentative Bamboo partners and members.

## Bamboo Workshop 5

17 June 2009 – 19 June 2009



Bamboo workshop sponsored by the University of California, Berkeley.  
Washington, DC

NEH Meeting  
22 June 2009



Bamboo presentation to the National Endowment of the Humanities.  
Washington, DC

Digital Humanities 2009  
23 June 2009 – 25 June 2009

... presentation at the Digital Humanities 2009  
... University of Maryland.

Bamboo Leadership Council Meeting  
15 July 2009



Center for Cooperative Meeting  
28 July 2009

Joint meeting with Bamboo, Carrietal, and representatives from Google Books.  
Chicago, IL


Bamboo Implementation Proposal 0.6  
3 August 2009

August 2009



# Mellon Review of Bamboo Implementation Proposal

16 September 2009


 Draft of the Bamboo Implementation Proposal sent to the Mellon Research in Information Technology program for formal pre-submission review.


## Bamboo/Mellon RIT Discussions

18 September 2009 – 2 October 2009




Dialogue between Bamboo and Mellon RIT to address issues raised during the formal review of the Bamboo Implementation Proposal draft.


**Proposal Submission Deferral**  
3 October 2009  
 Submission of the Bamboo Implementation Proposal is formally deferred pending continued discussions with Mellon RIT

**Bamboo Technology Proposal Scope Development**  
4 October 2009 – 14 October 2009  
 Following discussions with Mellon RIT, developed a revised scope of work to focus on the technology elements of Bamboo.

November 2009

Mellon Review of Scope of Work for the Bamboo Technology Proposal  
22 October 2009

 The Ocean Group at King's College London  
Networks founded at King's College London

**Mellon Response to Scope of Work for the Bamboo Technology Proposal**  
9 November 2009  
 Mellon RIT submits a formal letter of response to the revised and proposed scope of the Bamboo Technology Proposal

on RIT to address  
w of the Bamboo

Mellon Review of Scope of Work for the Bamboo  
Technology Proposal  
22 October 2009

Draft of the scope of work for the Bamboo Technology  
Proposal sent to the Mellon Research in Information  
Technology program for review

## Proposal Submission Deferral

3 October 2009



Submission of the Bamboo Implementation Proposal is formally deferred pending continued discussions with Mellon RIT

CHAIN Founded

26 October 2009 - 27 October 2009

### Bamboo Technology Proposal Scope Development

4 October 2009 - 14 October 2009



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November 2009

December 2009

Mellon RIT discussed the revised and proposed scope of the Bamboo Proposal

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9 November 2009

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Bamboo Technology


November 2009

er 2009

Infrastructures &  
, London.

### Bamboo Partner Discussions

25 November 2009 - 18 December 2009

 Conversations with tentative Bamboo partners regarding revised scope of work and long-term vision of Bamboo.

CHAIN Meeting  
8 December 2009

## Mellon Response to Scope of Work for the Bamboo Technology Proposal

9 November 2009



Mellon RIT submits a formal letter of response to the revised and proposed scope of the Bamboo Technology Proposal.

December 2009


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25 November 2009 – 18 December 2009



Conversations with tentative Bamboo partners regarding revised scope of work and long-term vision of Bamboo.

**CHAIN Meeting**  
8 December 2009

 First formal meeting of the Coalition of Humanities & Arts Infrastructures & Networks.  
Oxford, UK

**CNI Fall Task Force Meeting**

14 December 2009 – 15 December 2009  
 Bamboo presentation at the Coalition for Networked Information Fall Task Force Meeting.  
Washington DC

Activities

# Community Design Lessons – People

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- **Engage the breadth of backgrounds and experience** – Bamboo developed a contribution framework of explore, plan and build to create a number of ways to channel individual contributions
- **Cultivate interest in shared understandings and scholarly connections** – work toward bringing communities together at multiple levels
- **Aligning communities around a common vision is a challenge** – avoid the “all things to all people” trap
- **Adapt, adapt and adapt even more** – sometimes things won’t work or the community is at a different place than you expected; don’t be afraid to change things mid-stream



# Community Design Lessons – Technology

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- **Don't need another tool** – define and create a *platform* upon which to build and connect existing and future tools and content.
- **Frame a comprehensive vision** – we adapted the NSF three rings of cyberinfrastructure as a model for Bamboo (shared understanding across communities, shared technology, shared organization)
- **Participating in and Evolving the Ecosystem** – is it part of an ecosystem of technology efforts? In the case of Bamboo, it is best to “fit in rather than stand out”
- **Innovation is not normative** – driving toward common technologies must not come at the expense of individual creativity

# Community Design Lessons – Technology

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- **Shared services (SOA) approach is relatively new** – a services based approach to the development, distribution, and operation of teaching and research technologies is in very early stages, and there is much to be learned about development life cycles and incentives.
- **Content is king; services applied to content fundamental** – forms of content management and data interoperability seem to appear everywhere, and scholars are increasingly seeking ways to mash together and manipulate content.
- **Challenge of too much abstraction** - sometimes you need to build end-user tools to work back to platforms.

# Community Design Lessons – Organization

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- **Individual efforts don't lead to sustainable activities** – some kind of structure is needed to sustain and guide efforts at both the local and inter-institutional levels for both the short and long term.
- **Achieving sustainability requires some kind of organization** – a successful community design process can lay the groundwork for a community of practice and a sustaining organization.
- **Organizational model will have to be evolutionary** – things change over time and for an infrastructure effort to succeed in the long term, it must grow technologically, culturally, and structurally.

# Benjamin Franklin

Patron Saint for Cyberinfrastructure for the Humanities

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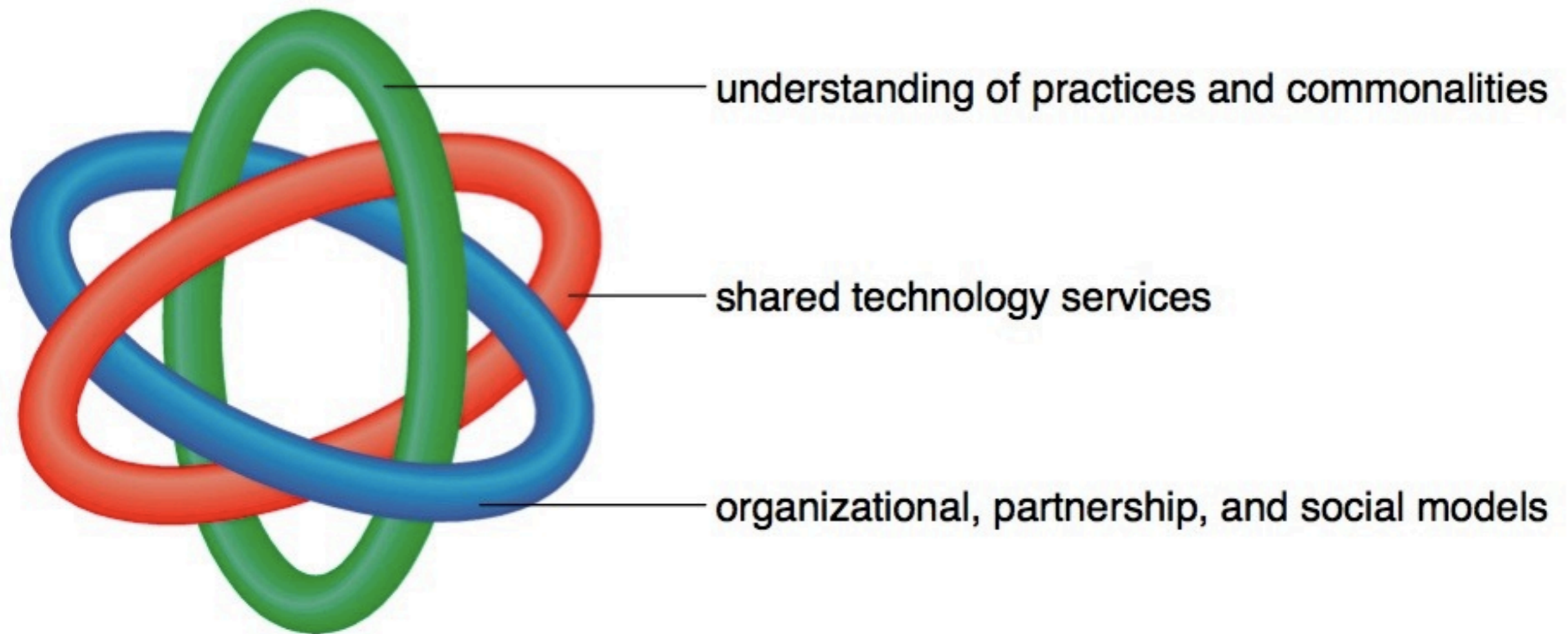
“I would like to propose a patron saint for cyberinfrastructure ... my nominee is Benjamin Franklin. Why Ben, you might ask? It is partly that Franklin was a tinkerer with new technologies, a printer and a publisher, someone who established the first circulating library in the US, a politician with more 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*

# Bamboo Vision of Cyberinfrastructure

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Adapted from the "Borromean Ring Team" model for cyberinfrastructure  
presented by D.H. Atkins, Office of Cyberinfrastructure, National Science Foundation

# What's Next?

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- Completion of the planning process that will include the authoring the final report and publishing the data gathered during the community design process.
- Submission of one-year Bamboo Technology Proposal to the Andrew W. Mellon foundation with a targeted start date of July 2010.
- Formulation of a long-term program for Bamboo that includes a model for ongoing community engagement and future technology development. This effort is slated to begin in early 2010.

# Bamboo Technology Proposal

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## **Bamboo Services Platform**

A set of robust and reusable core technologies to enable tool builders, campus IT, and libraries to collaboratively develop and support humanities technologies across institutions.

## **Bamboo Collections**

A set of humanities collections services, along with reference implementations built atop the Bamboo Services Platform, to support humanities scholars in the curation, analysis, and communication of scholarly collections.

## **Bamboo Communities**

A set of services built on the Bamboo Services Platform to make it easier for humanities scholars and communities of practice to identify and discover projects, people, tools, and content of interest.

# Interface and Integration

Interface & Integration



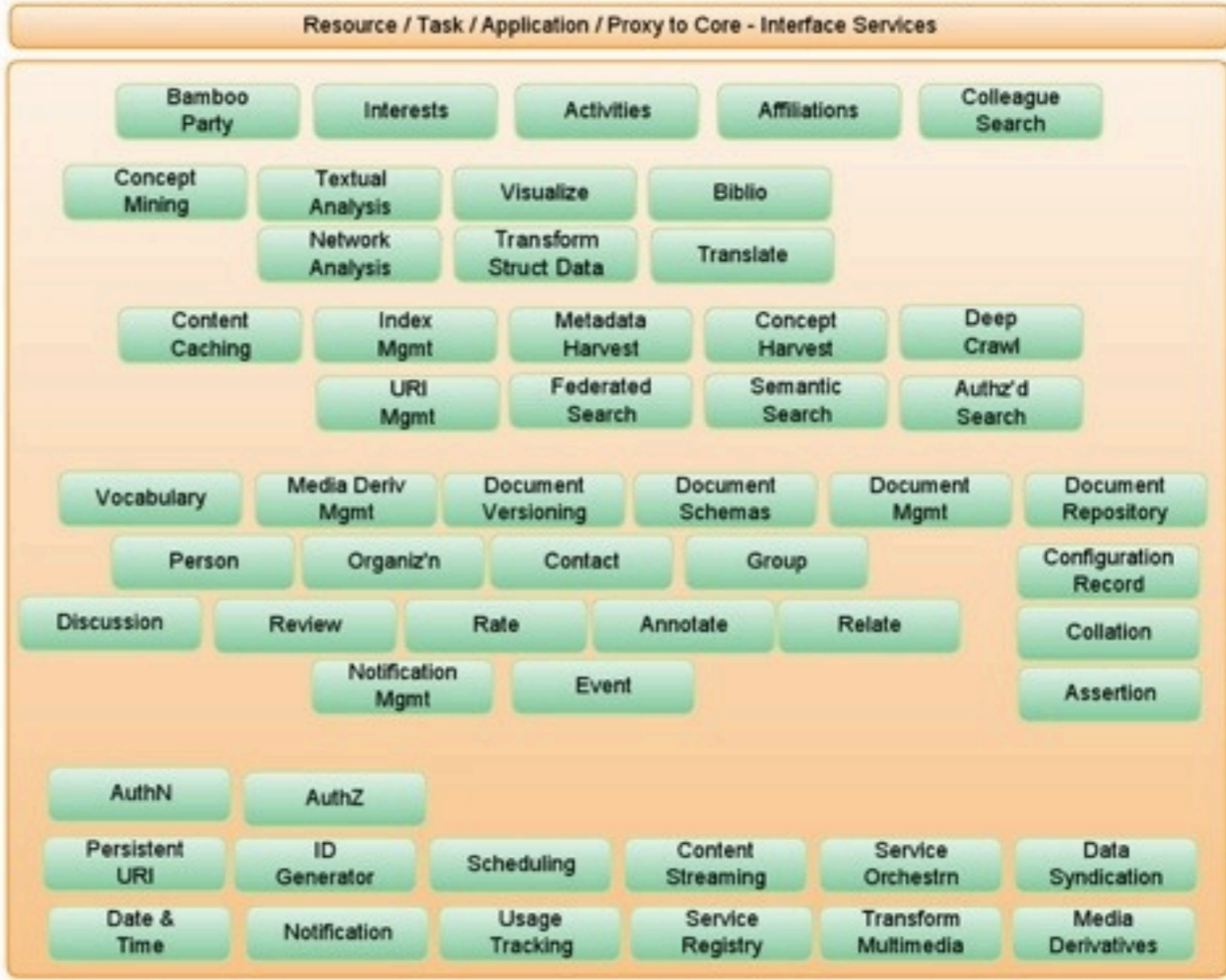
# Application, Task and Resource Services

Application, Task, Resource



# Core and Utility Services

Core and Utility



Core: Profile

Core: Content Analysis

Core: Search & Discovery

Core

Utility

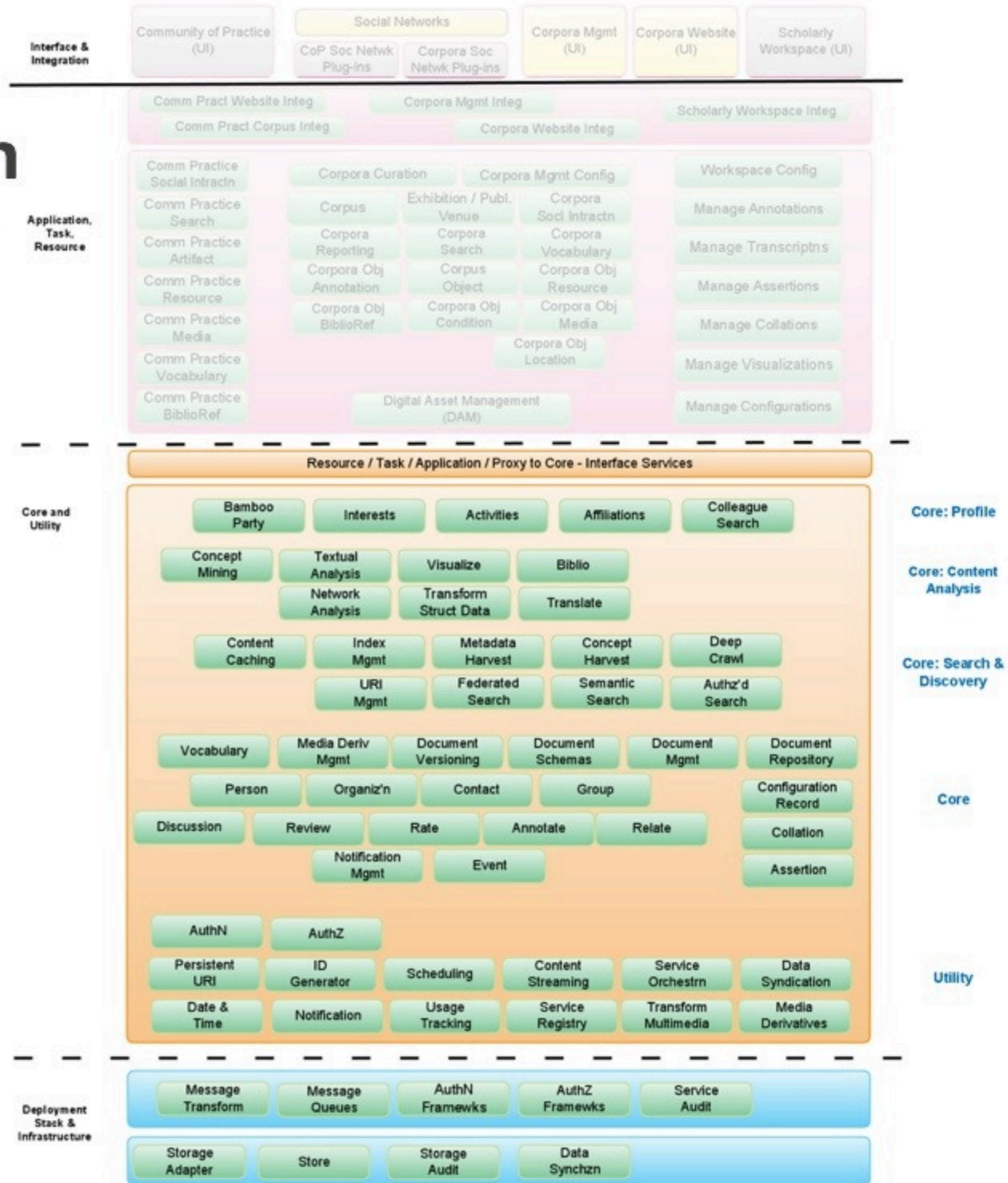
# Deployment Stack and Infrastructure

Deployment Stack & Infrastructure

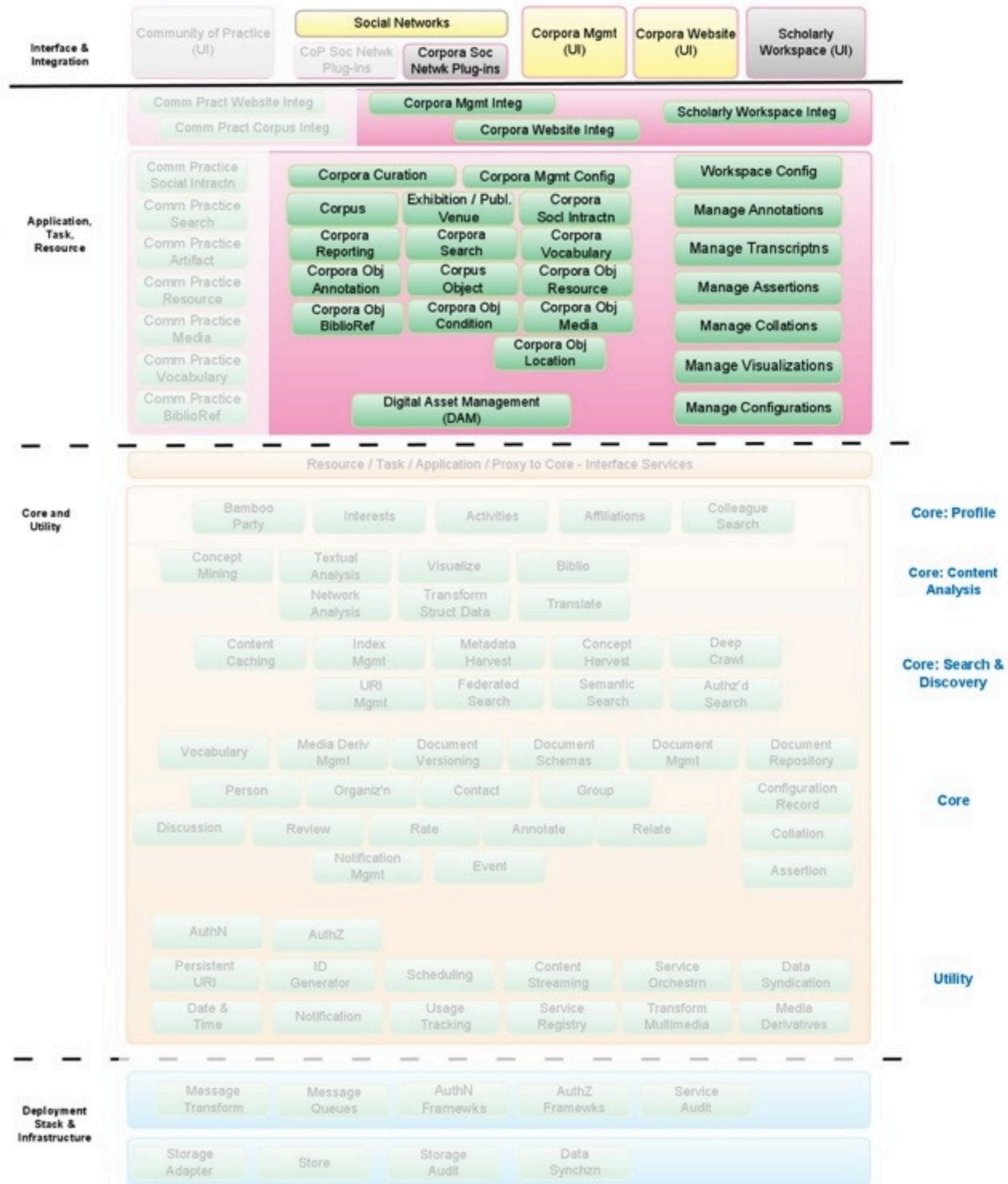




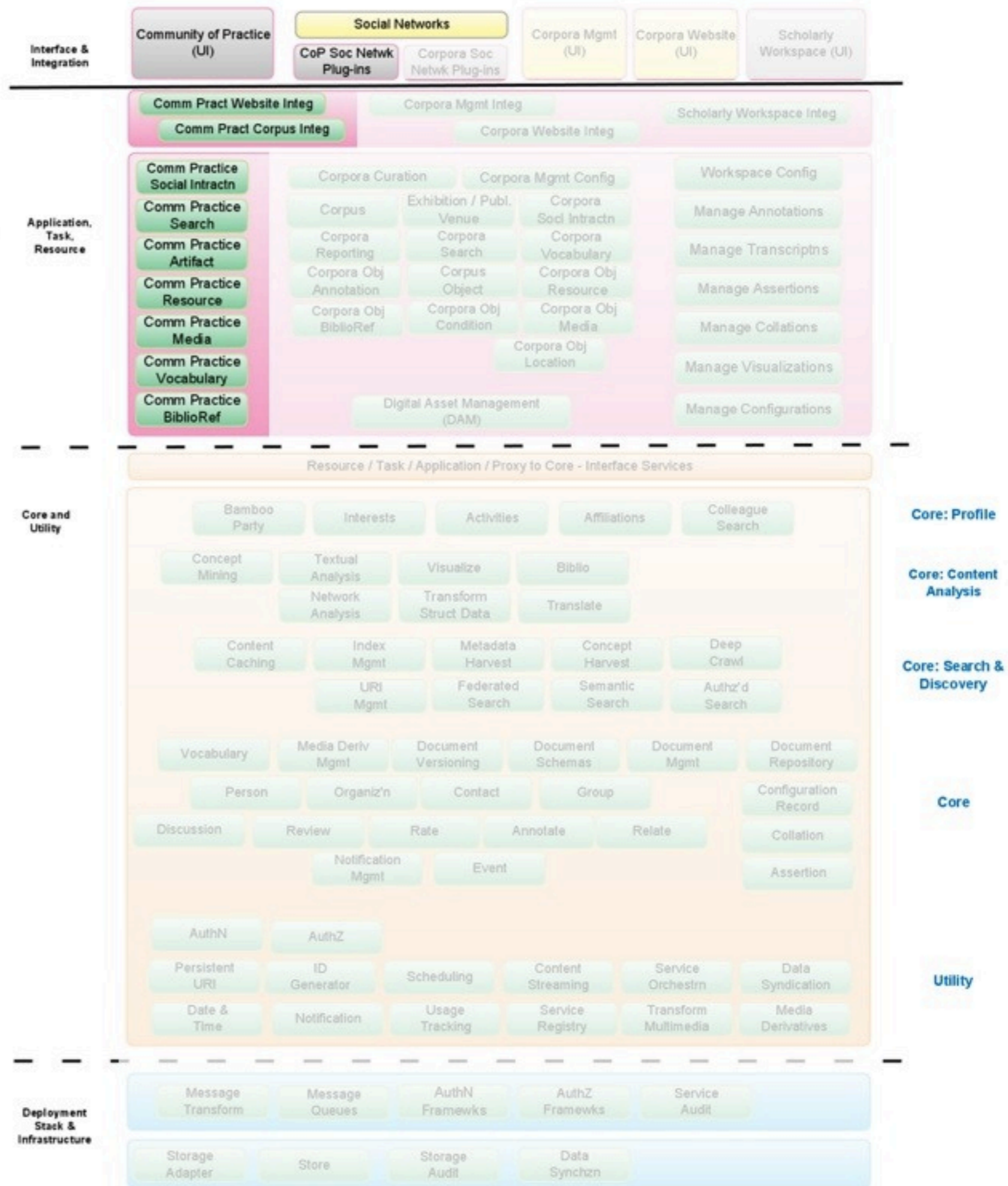
# Bamboo Services Platform



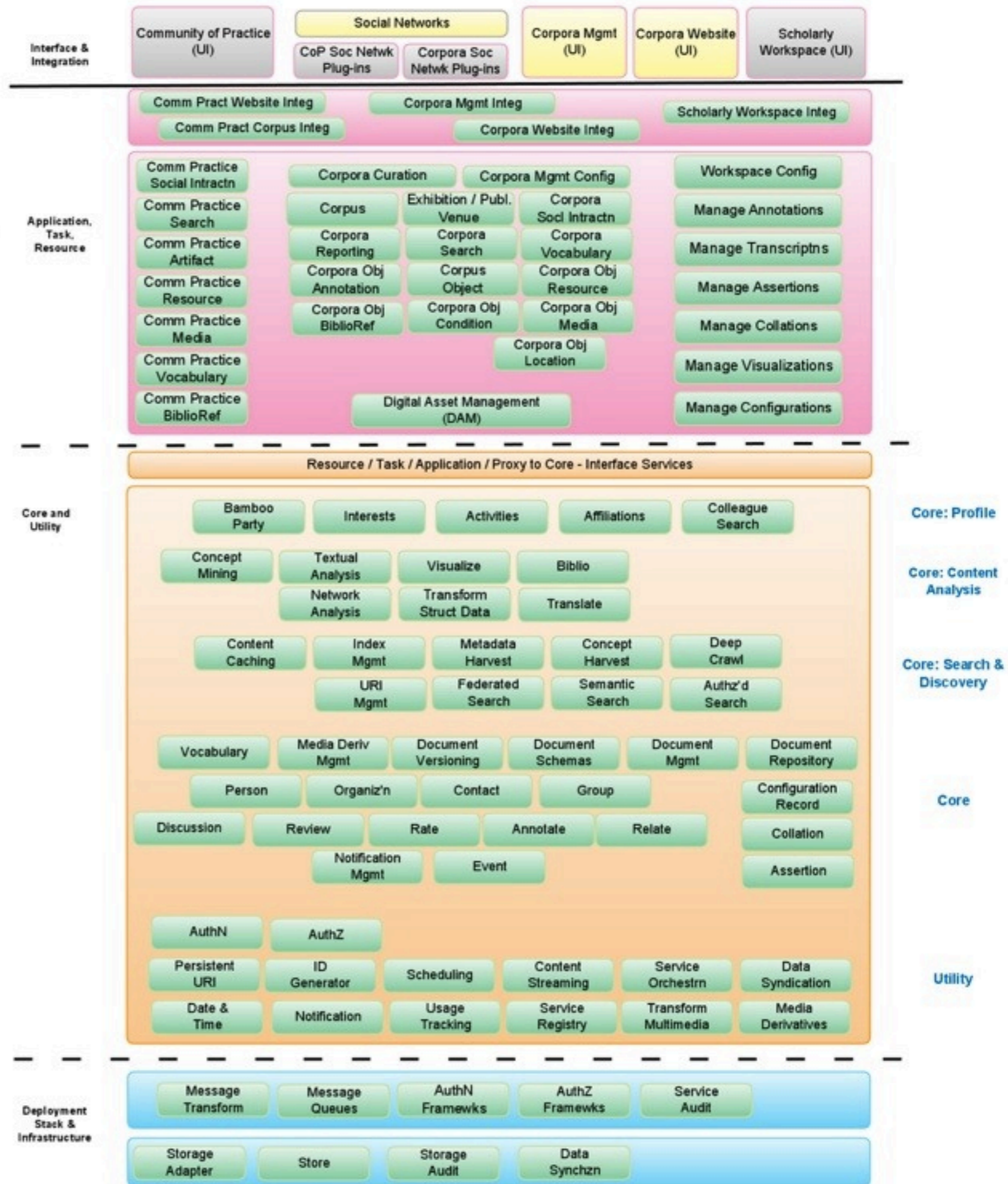
# Bamboo Collections



# Bamboo Communities



# Proposal Scope



# Too Grand or Doable Project?

Are we thinking too big?

Are we taking on too much risk?

Are we trying to change too many things?

Is it really worthwhile to pursue such a grand agenda?

**"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



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**Program** led by a partnership of colleges and universities to develop shared and sustainable technologies for use by the arts and humanities.

**Focused project** to develop, within its first year, a platform for sharing technologies and content across institutional boundaries toward advancing scholarship, learning, and research in the arts and humanities.

## What is Bamboo?