Yale

Model for Campus-Wide Content Strategy

Office of Digital Assets & Infrastructure
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• Introduction to ODAI
• Yale, Culture, & Infrastructure
• Cultural Shifts & Transformations
• The Bridge
1. What is ODAI?
First, what it is not
Not a Library
Not ITS
“Thus, the digital landscape is woven into the basic fabric of our activity, and it is not confined to one sector of the community. In essence, technology leverages the existing assets of the University. Those assets are, first and foremost human capital: student, faculty, and staff. This is followed by Yale’s collections and its global reputation.

–Draft report of the Digital Landscapes Committee
A New Model
Reporting

Yale University

About Yale | University leadership & organization

Yale home

About Yale
President’s welcome
Yale History
University organization
Governance & historic documents
Select policies & procedures
Financial overview
Other advisory bodies
Visiting Yale

Officers of the University

President
Richard Charles Levin, B.A., B.Litt., Ph.D.

Provost
Peter Salovey, A.B., M.A., Ph.D.

Vice President and Secretary
Linda Koch Lorimer, B.A., J.D.

Vice President and General Counsel
Dorothy Kathryn Robinson, B.A., J.D.

Vice President for New Haven and State Affairs and Campus Development
Bruce Donald Alexander, B.A., J.D.

Related links
The Yale Corporation
University organizational chart

Monday, December 21, 2009
The Whole is Greater than the Sum
ODAI Mission

Drawing upon the extensive faculty and staff resources of the campus, accelerate the development of Yale’s digital content and infrastructure into a world-class resource that ensures Yale's digital assets will be discoverable and accessible for teaching and research both now and in the future and that provides a platform for disseminating the University's intellectual digital assets.
Digital Ecosystem At Yale

Content

Sustainability

Technology

Community

Policy & Shared Practice

Infrastructure
2. Yale, Culture, & Infrastructure

What is the relationship between culture and infrastructure?
Culture Of A Group

“...a pattern of shared basic assumptions that was learned by a group as it solved its problems...” (Schein, 2004).

1701: Yale Collegiate School Founded
1718: Elihu Yale Donation Of Books & Goods
1722: Yale Seal
1750: Connecticut Hall
1832: Yale University Art Gallery

1866: Peabody Museum of Natural History

1977: British Art Center
Bull-dog! Bull-dog! Bow, wow, wow,
Eli Yale!
Bull-dog! Bull-dog! Bow, wow, wow,
Our team can never fail.
When the sons of Eli break through the line,
That is the sign we hail,
1930: Sterling Memorial Library
Library Centrally Located On Campus
Core Knowledge Infrastructure

[Image of a stone wall with the inscription: "The Heart of the University"]
Like all great research universities, Yale has a tripartite mission: to create, preserve, and disseminate knowledge. Yale aims to carry out each part of its mission at the highest level of excellence, on par with the best institutions in the world. Yale seeks to attract a diverse group of exceptionally talented men and women from across the nation and around the world and to educate them for leadership in scholarship, the professions, and society.
Cultural Commonality?
Individual School Missions

• stimulate artistic sensitivity and creative powers
• prepare for the lay and ordained ministries
• scientific principles and engineering practice
• conserving the beauty, diversity, and integrity of the natural world
• central role that the rule of law plays in a free society
• improve health and to alleviate suffering caused by illness and disease
• ...
Knowledge Infrastructure vs. Disciplinary Subcultures

- Hard Science
- Social Science
- Natural History
- Humanities
- Business
- Law
- Divinity
- Arts
- Medicine
Cultural Diversity?
Cultural Paradigm

A state of equilibrium between the *cultural commonality in regard to infrastructure* and the *cultural diversity in regard to disciplinary practice*.
3. Cultural Shifts & Transformations
Cultural Shifts and Transformations

• ‘Internationalization’ of Yale
  • Outreach and expansion of educational ties
  • Commitment to global dissemination of digital content

• Data Deluge and Investments in Technology Infrastructure
  • Computation, storage, network
  • West Campus: interdisciplinary centers in the sciences and the arts

• Dis-aggregation of scholarly output
  • Dis-intermediation of traditional publisher and steward roles
  • Humanities and scholar’s workbench
  • Virtual research environments
Internationalization of Yale

Yale Global Online

耶鲁全球在线

Yale Center for the Study of Globalization

The Center
Global Dissemination of Yale Content

Welcome to Yale University on iTunes U

Yale University
Last Modified: Jul 14, 2009
Total Tracks: 81

Yale Arts & Architecture
Last Modified: Jul 14, 2009
Total Tracks: 17

Yale Books & Authors
Last Modified: Jul 23, 2009
Total Tracks: 68

Yale Business & Management
Last Modified: Aug 23, 2009
Total Tracks: 105

Yale Engineering & Technology
Last Modified: Jul 14, 2009
Total Tracks: 31

Yale Environment
Last Modified: Aug 9, 2009
Total Tracks: 74

Yale Humanities
Last Modified: Jul 14, 2009
Total Tracks: 66

Yale International
Last Modified: Jul 14, 2009
Total Tracks: 188

Yale Library
Last Modified: Jul 14, 2009
Total Tracks: 46

Yale Music
Last Modified: Jul 14, 2009
Total Tracks: 22

Yale Athletics
Last Modified: Jul 14, 2009
Total Tracks: 7

Yale Cancer Center
Last Modified: Aug 30, 2009
Total Tracks: 81

Yale Health & Medicine
Last Modified: Aug 30, 2009
Total Tracks: 178

Yale Law
Last Modified: Jul 14, 2009
Total Tracks: 46

Yale Religion
Last Modified: Jul 14, 2009
Total Tracks: 66
Data Deluge and Technology Infrastructure

massive volumes of data are flooding the storage and network infrastructure
Investments in High Performance Computing
Mass Data Storage
Yale's West Campus

- Interdisciplinary Centers in the Sciences and the Arts
- Opportunity to create cross-functional centers
Yale’s West Campus: Three Cores of Advanced Research
West Campus Analytical Lab

- Proposed shared analytical lab studying conservation and preservation techniques of physical objects

- Conversion of Science and Art
  - Scientists, curators, and digital technicians working together
  - Contributing to the scholarship of the History of Art

- Create information about objects and manage systems that support analytics
  - 3D imaging
  - Xray technologies
  - Mass Spectrometry
Dis-aggregation of Scholarly Output

- Dynamic subculture-level nodes of knowledge develop outside the traditional ‘aggregate’
- Dis-intermediation of traditional publisher and steward roles
- Humanities and scholar’s workbench
- Virtual research environments
About

This new working group focuses on digital humanities, a still emerging practice involving the use of information technology-based resources and methods in the scholarly activities of the humanist. Digital humanities encompass an array of convergent practices that explore a world in which scholarship is not exclusively produced in print but is created and distributed through new digital technologies. This group will consider the expanding practices, vocabulary, and research methods germane to Digital Humanities across disciplines.

Meeting Schedule

Unless otherwise noted, all meetings will take place from 12:00 - 1:30 p.m. in the Whitney Humanities Center, Room 208.

September 24, 2009

October 29, 2009 (Room 409, Sterling Memorial Library)
The Modernism Lab is a virtual space dedicated to collaborative research into the roots of literary modernism. We hope, by a process of shared investigation, to describe the emergence of modernism out of a background of social, political, and existential ferment. The project begins with the period 1914-1926, from the outbreak of the first world war to the full-blown emergence of English modernism. The Lab supports a graduate course in English and Comparative Literature, "Moderns, 1914-1926." Students in the class contribute materials to the website and use it as the platform for their ongoing research. In 2009, the lab will also support undergraduate courses on Joyce's Ulysses and Modern British Fiction. The main components of the website are an innovative research tool, YNote, containing information on the activities of 24 leading modernist writers during this crucial period and a wiki consisting of brief interpretive essays on literary works and movements of the period.
Virtual Research Environments

- Dynamic subculture-level nodes of knowledge develop outside the traditional ‘aggregate’ (books, journals)
- Subcultures become aggressive content producers, aggregators, disseminators
- Blending roles of producer, disseminator, steward

Genome

1000 prokaryotic genomes are now completed and available in the Genome database.

my experiment

Sloan Digital Sky Survey
Mapping the Universe
Find a Gene

• How To: Find genes associated with a phenotype or disease

• Search the OMIM database with the phenotype or disease name.
  • OMIM ® - Online Mendelian Inheritance in Man ®

• Click on the desired record.

• Click the blue "Links" on the right, and click on "Gene" in the resulting menu. If the link is not present, no gene is currently linked to this OMIM record. There may be some information in the "Medical Genetics" section of the OMIM text.
Download a Genome

• How To: Download the complete genome for an organism

• Go to the Genomes FTP site.

• See the README file in that directory for general information about the organization of the ftp files.

• Locate the directory for your organism of interest. Within that directory a README file will describe the various files available. In many cases, the sequence data is segregated into directories for each chromosome.

• Use any FTP client to download the data.
Results: Fragmentation

- Exciting times with high energy and great leaps in scholarship and scientific progress

But….  

- Fractured information architecture
- Dominance of subcultures without a coherent institutional framework
- Distributed subcultures of content production, sharing, publishing
- Collections develop within silos and are often unstable
- Subcultures develop independent technological solutions and systems
Results: deficiencies and stress

Need to find solutions, build a new framework based upon common practices and infrastructure

- Resource challenges
- Deficiencies and loss of content
- Technological stress on the system: mass storage, HPC, network flooded, security and privacy issues
- Policy stress on the system: IP and copyright, open access, mandates
- Cultural stress on communities of practice
  - Communities struggling to do their work within new digital context
  - Overlapping missions, goals, opportunities
4. The Bridge
Balanced Knowledge Infrastructure
Current Activities: Shared Services

Shared services for the management and preservation of campus digital assets that include extensible, highly reliable mass storage.

- Digital Asset Management system
- 180 Terabytes of replicated storage
- Persistent Linking Service
- Metadata harvesting and provisioning
- Cross Collection Discovery
- Building road map for digital preservation tools and services
Current Activities: Stewardship Policies

Campus-wide digital stewardship policies and services to address the proliferation of data generated by faculty research and data intensive research activity

- Research Data Task Force: 34 faculty interviews building evidence regarding research data requirements including storage, HPC, data management, and persistent access: report January 2010

- Plan incremental and prioritized solutions to mitigate risks of loss of valued digital assets

- Prototype Data Repository: Pilot in development
Current Activities: Common Practice

A compendium of shared best practices and policies associated with the creation, management, and dissemination of digital content, especially focusing on intellectual property.

- Best practices for digitization of art objects, video production, licensing Yale content, and intellectual property concerns

- ODAI Working Group focus 2010 – 2011
  - Develop a policy framework around the University decisions and requirements for stewardship of its digital assets, including the definition of “asset”.
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