Urgent Issues in Scholarly Communications (學術溝通): A View from the Andrew W. Mellon Foundation

Donald J. Waters
Senior Program Officer

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The Andrew W. Mellon Foundation

The Foundation endeavors to strengthen, promote, and, where necessary, defend the contributions of the humanities and the arts to human flourishing and to the well-being of diverse and democratic societies. To this end, we support exemplary institutions of higher education and culture as they renew and provide access to an invaluable heritage of ambitious, path-breaking work.
Total Endowment: $6.8 billion

Total Annual Grantmaking: $280 million

Programs: Higher Education and Scholarship in the Humanities, International Higher Education and Special Projects, Diversity, Arts and Cultural Heritage, Scholarly Communications (學術溝通)
The Scholarly Communications (學術溝通) Program provides support for the development of the technical and related institutional and human infrastructure for research and knowledge building that serves the public good (公眾利益)
Part 1

The Public Good (公眾利益)
For 60% of all Americans, higher education in the U.S. is “heading in the wrong direction”

-- Source: Gallup Poll and the Pew Research Center
In the face of declining public opinion and support, universities and colleges must ask: “If we weren’t here tomorrow, who would miss us and why?”

— Eugene Tobin, Mellon Foundation
Is higher education simply a private good for individuals that satisfies their personal quests for knowledge and helps make them employable?
If not, how does higher education contribute measurably to the public good (公眾利益)?
How does higher education contribute to solving the grand challenges (大挑戰)—the “wicked problems”—that stand in the way of human flourishing?
Grand Challenges (大挑戰)

- Racism
- Refugees and forced migration
- Climate change
- Inequality
- Food scarcity
- Mass incarceration
Just as higher education has been devalued, so in the digital age has the search for truth, the ability to weigh evidence, and the process of creating knowledge
Higher education cannot rehabilitate itself, address the grand challenges (大挑戰), and serve the public good (公眾利益) in the digital age without a credible and reliable digital information infrastructure.
Creating such an infrastructure and making it easy to use, affordable, and widely available is itself a grand challenge!
PART 2

A DIGITAL INFRASTRUCTURE FOR HUMANITIES SCHOLARSHIP

(數字基礎設施的人文學術)
Primary sources and the record of prior scholarship are the fuel of scholarship and the foundation of public understanding of human creativity and culture.
THE SCHOLARLY WORKFLOW

Scholarly Publishing

Preservation

Description Organization Curation

Discovery and Access

New insights, new data

Use in research and teaching

Collected Stuff (the scholarly and cultural record)
PUBLISHING

Collected Stuff
(the scholarly and cultural record)

Scholarly Publishing

New insights, new data

Use in research and teaching

Preservation

Description Organization Curation

Discovery and Access

Use in research and teaching

New insights, new data

Scholarly Publishing
PRESERVATION

Collected Stuff (the scholarly and cultural record)

- Preservation
- Description Organization Curation
- Discovery and Access
- Use in research and teaching
- New insights, new data
- Scholarly Publishing
An information infrastructure engineered to the digital environment is emerging—gradually and unevenly across the disciplines
But end-to-end workflows are now possible and are being refined and stabilized
A GENERALIZED HUMANITIES RESEARCH WORKFLOW

Gather → Catalog → Transcribe → Identify → Interpret → Publish

Functions
A “Digitized” Humanities Research Workflow

Gather
Catalog
Transcribe
Identify
Interpret
Publish

Digitization
Encoded Archival Description
TEI / Optical Character Recognition
LOD / Encoded Archival Context
W3C Web Annotation Model
In Progress

Digital Standards
A “Digitized” Humanities Research Workflow

Gather
- Digitization
  - Hidden Collections / Tropy

Catalog
- Encoded Archival Description
  - Archivist’s Toolkit

Transcribe
- TEI / Optical Character Recognition
  - eMOP: Early Modern OCR Project

Identify
- LOD / Encoded Archival Context
  - SNAC Cultures of Knowledge

Interpret
- W3C Web Annotation Model
  - Hypotheses.is Mirador Scalar

Publish
- In Progress

Digital Applications

In Progress
Where is attention most urgently needed in the humanities?
A “Digitized” Humanities Research Workflow

Gather
Digitization
Hidden Collections / Tropy

Catalog
Encoded Archival Description
Archivist’s Toolkit

Transcribe
TEI / Optical Character Recognition
eMOP: Early Modern OCR Project

Identify
LOD / Encoded Archival Context
SNAC Cultures of Knowledge

Interpret
W3C Web Annotation Model
Hypothes.is Mirador Scalar

Publish
In Progress
PART 3
DIGITAL PUBLISHING (數字出版)
ADDRESSING THE NEED FOR DIGITAL PUBLISHING (數字出版)

Publish

In Progress

In Progress

Editorial Collaborations

Monograph Initiative
EDITORIAL COLLABORATIONS

HUMANITIES RESEARCH WORKFLOW

Gather sources
Catalog
Transcribe / Translate
Identify people, etc.
Annotate and interpret

Digitization
Encoded Archival Description
TEI / Optical Character Recognition
LOD / Encoded Archival Context
W3C Web Annotation Model

Hidden Collections / Tropy
Archivist's Toolkit
eMOP: Early Modern OCR Project
SNAC Cultures of Knowledge
Hypothes.is Mirador Scalar

Scholarly editions
Beginning with Valley of the Shadow and the Rossetti Archive in the early 1990’s, many digital projects in the humanities have been imaginative experiments exploring the theory, form, and practice of scholarly edition-making.
DIGITAL EDITION PUBLISHING COOPERATIVES
(WITH THE NATIONAL HISTORICAL PUBLICATIONS AND RECORDS COMMISSION)

Records of Early English Drama
Bucknell

Civil War Papers
Kentucky Historical Society

19th Century American Culture
Massachusetts Historical Society

African American Freedom Struggle
Stanford

ARCScholar
Texas A&M

Scholarship in 3D
UC Santa Cruz

Historical Business Accounts
Wheaton College

American History
University of Virginia
THE BOOK PUBLISHING SYSTEM

Author -> submits work -> Publisher

Publisher -> edits -> Reader

Publisher -> markets -> Reader

Reader -> sales / uses -> Publisher
THE SCHOLARLY BOOK PUBLISHING SYSTEM

Author

University / College

University Press

Academic Library

Reader

- submits work
- edits
- promotes / tenure
- subsidies
- markets
- markets
- sales / uses
- discovery
- sales / uses
DIGITAL MONOGRAPH INITIATIVE

48 months
58 grants
$25.3 million
AREAS OF FOCUS

- Amount and cost
- Business models
- Intellectual property
- Promotion and tenure
- Infrastructure
- Community
NEW DIGITAL PUBLISHING (數字出版) INFRASTRUCTURE

Art & Architecture
Yale

Muse Open
JHU Press

Longleaf
UNC Press

Fulcrum
Michigan

Readium with Hypothes.is
NYU

Manifold
Minnesota

Interactive Scholarly Works
Stanford

Editoria
UC Press / Coko

Epub
Rebus

Primary Sources
UBC / UW Presses

Scalar
USC

Digits
CMU
NEW DIGITAL PUBLISHING (數字出版) INFRASTRUCTURE

Production
- Editoria
  UC Press / Coko
- Scalar
  USC

Content
- multimedia access
  Michigan
- works in progress
  Minnesota
- primary sources
  UBC / UW Presses
- interactive scholarly works
  Stanford
- art & architecture
  Yale

Service
- Longleaf
  UNC Press
- Epub
  Rebus

Distribution
- Muse Open
  JHU Press
- Readium with Hypothes.is
  NYU
- Digits
  CMU
SUPPORT A COMMUNITY OF AUTHORS

University / College

Author

University Press

promotes / tenure

subsides

serves as author agent

submits work

developmental editing

edits
**Support a Community of Authors**

- **Argument**
  - GMU
  - UCONN

- **Library Consultation**
  - Duke

- **Design-Thinking**
  - UIUC

- **Digital Scholarship**
  - Cincinnati

- **Ecosystem**
  - Emory

- **Author Resources**
  - Brown

- **Standards and Practices**
  - UCONN
What about the Reader?

In the emerging system of digital publication, there is little understanding of the reader.

Sufficient for readers to find and use digital academic works?

The digital supply chain is underdeveloped.

Skills in making markets for digital scholarship must grow.
PART 4

THE URGENCY OF THE PUBLIC GOOD (公眾利益)
A digitally reengineered research workflow is opening multiple points of entry to address the grand challenge problems
Include New Sources

The “audiovisual century”
Web archives and social media
The history and culture of underrepresented and oppressed communities
Engage New Participants

Students in undergraduate research projects

Members of the public through “crowdsourcing”
Interrogate Sources in New Ways

People of the Medici Archives
Networks of the Electronic Enlightenment
People of the Slave Trade
Social Networks and Archival Context (SNAC)
Pelagios
Confront the Challenges of the Medium

Ethical use of social media (“Documenting the Now”)

Treatment of personally identifiable information (Webrecorder)

Handling of medical records (Asylum for Colored Insane)

Cultural sensitivity (Mukurtu)

Cultural appropriation (Post-custodial archives)
Digital research workflows also make possible and require new forms of collaboration, often in commercial form
THE SCHOLARLY RESEARCH WORKFLOW PRE-1990S

Collected Stuff (the scholarly and cultural record)

- Preservation
- Description Organization Curation
- Discovery and Access
- Use in research and teaching
- New insights, new data
- Scholarly Publishing

ICPSR

OCLC
THE SCHOLARLY RESEARCH WORKFLOW
1990s

Collected Stuff
(the scholarly and cultural record)

Scholarly Publishing

Preservation

Description Organization Curation

Discovery and Access

New insights, new data

Use in research and teaching

arXiv.org

ICPSR

INTERNET ARCHIVE

OCLC
THE SCHOLARLY RESEARCH WORKFLOW
EARLY 2000S

Collected Stuff
(the scholarly and cultural record)

Preservation

Description
Organization
Curation

Use in research and teaching

New insights,
new data

Scholarly Publishing

Discovery and Access

ICPSR

arXiv.org

Organization
Curation

Scholarly
Publishing

Preservation

Use in research and teaching

New insights, new data
RESEARCH
BY 2017

ARTstor

The Open Library Environment
Open, Flexible, Extensible, Sustainable

Collected Stuff
(the scholarly and cultural record)

Use in research and teaching

Description
Organization
Curation

Discovery and Access

Wikipedia
flickr
Project MUSE
ARTstor

LibraryThing
goodreads

Google
OCLC
DPLA
Ex Libris

ScienceDirect
Scopus

borrowdirect
Uborrow

 Fedora

ORCID

InCommon

VIVO

GitHub

Khan Academy

InCommon Federation
Mukurtu
Publishing by 2017

Scholarly Publishing

Collected Stuff (the scholarly and cultural record)

New insights, new data

Use in research and teaching

PubPeer

Open Library of Humanities

Oxford University Press

Online resource centres

The Walt Whitman Archive

Michigan Publishing

University of Michigan Library

RePEc

ResearchGate

arXiv.org

hivebench

ACADEMIA

Apache Taverna

figshare

Mendeley

Thomson Reuters

ENDNOTE

Hypothes.is

myexperiment

DRYAD

GitHub

Zotero

RefWorks
PRESERVATION
BY 2017
HOW ARE WE TO JUDGE THIS COMMERCIAL EXPANSION?

Does this commercial expansion represent an unwanted intrusion into the academy?
HOW ARE WE TO JUDGE THIS COMMERCIAL EXPANSION?

Does this commercial expansion represent an unwanted intrusion into the academy?

Does it provide the digital infrastructure that higher education needs to serve the public good (公眾利益) and address grand challenge issues “at scale”?
How are we to judge this commercial expansion?

Does this commercial expansion represent an unwanted intrusion into the academy?

Does it provide the digital infrastructure that higher education needs to serve the public good (公眾利益) and address grand challenge issues “at scale”?

Can higher education afford to pay for this digital infrastructure?
How are we to judge this commercial expansion?

Does this commercial expansion represent an unwanted intrusion into the academy?

Does it provide the digital infrastructure that higher education needs to serve the public good (公眾利益) and address grand challenge issues “at scale”?

Can higher education afford to pay for this digital infrastructure? **Can it afford not to?**