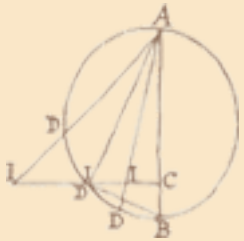
MAX PLANCK INSTITUTE FOR THE HISTORY OF SCIENCE
Max-Planck-Institut für Wissenschaftsgeschichte

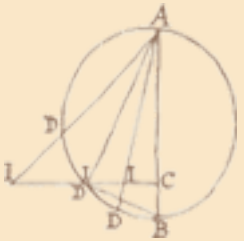


How Can We Bring Forward Commmunities with less Open Access Experience?
– Scholarly Challenges for the Humanities –

Open Access Conference Berlin 9

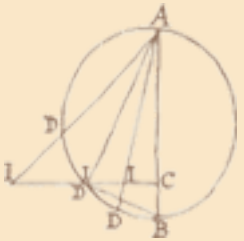
Urs Schoepflin
Max Planck Institute
for the History of Science

Bethesda, November 2011



Experiences of the Max Planck Institute for the History of Science

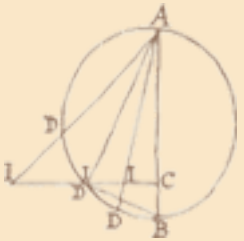
- Humanities in the Berlin Declaration
- Building an Open Access Research Infrastructure
- Content Acquisition Strategy
- Research Driven Tool Development
- Agora Idea
- Publishing Research Results and Primary Sources
- Recognition
- Funding Issues



Humanities in the Berlin Declaration

"Our mission of disseminating knowledge is only half complete if the information is not made widely and readily available to society.
New possibilities of knowledge dissemination not only through the classical form but also and increasingly through the open access paradigm via the Internet have to be supported.
We define open access as a comprehensive source of **human knowledge and cultural heritage** that has been approved by the scientific community."

Max Planck Society,
"Berlin Declaration on Open Access to Knowledge in Science and Culture", 2003

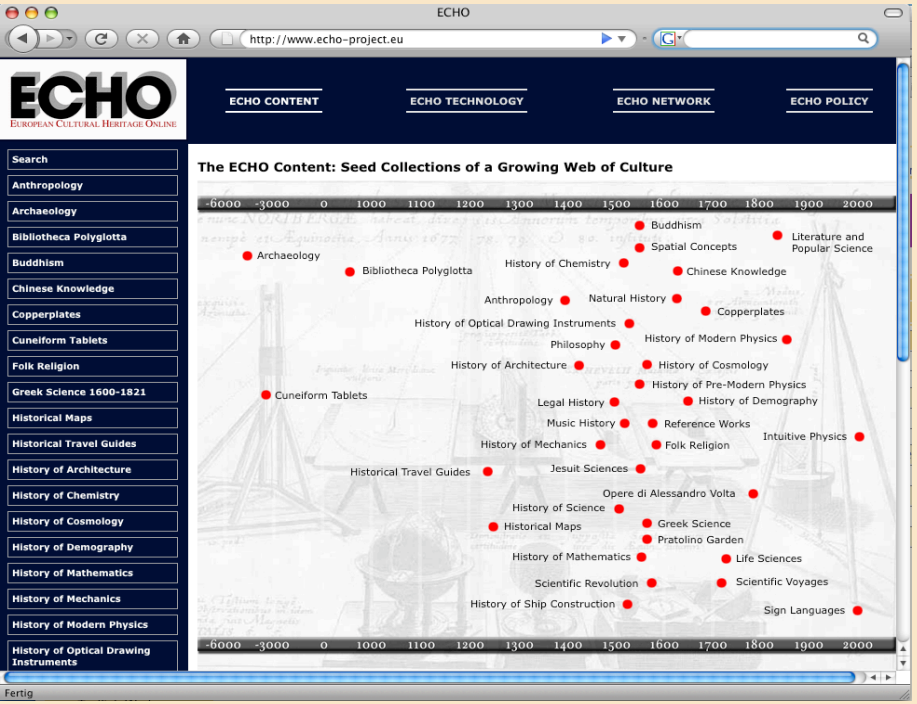


Building an Open Access Infrastructure: Challenges

- making sources and tools openly available
- create a critical mass of cultural heritage content
- contribute context and background data
- build infrastructures, workflows, and tools for direct use by scholars
- design of intuitive and user friendly interfaces
- allow for interoperability
- assure data quality and longterm stability
- build an agora of knowledge weavers to make sources and tools available online with little effort

"European Cultural Heritage Online" (ECHO)

Graphical overview on the ECHO content

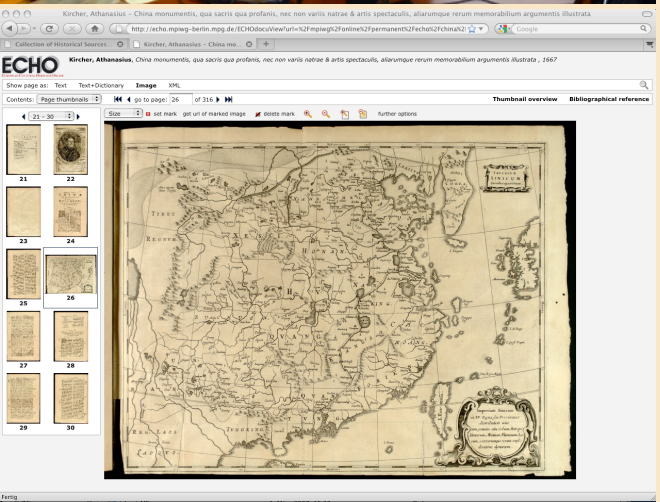


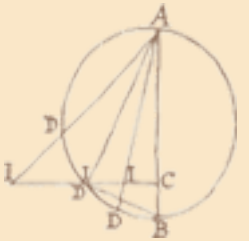
- representations of cultural heritage made openly available:
  - ca. 818,000 high resolution images; 9 multilingual dictionaries; transcriptions of ca. 57,500 texts; databases with more than 250,000 items; 240 video sequences
- technology development:
  - development of open source tools (XML-based language technology for annotation, morphological analysis, search, and dictionary access, image server, annotation tools for multimedia)

- ECHO Website:
  - http://www.echo-project.eu
  - first hit on Google search for *European cultural heritage*
  - starting point for including cultural heritage in the open access movement (Berlin Declaration)

Content Acquisition Strategy

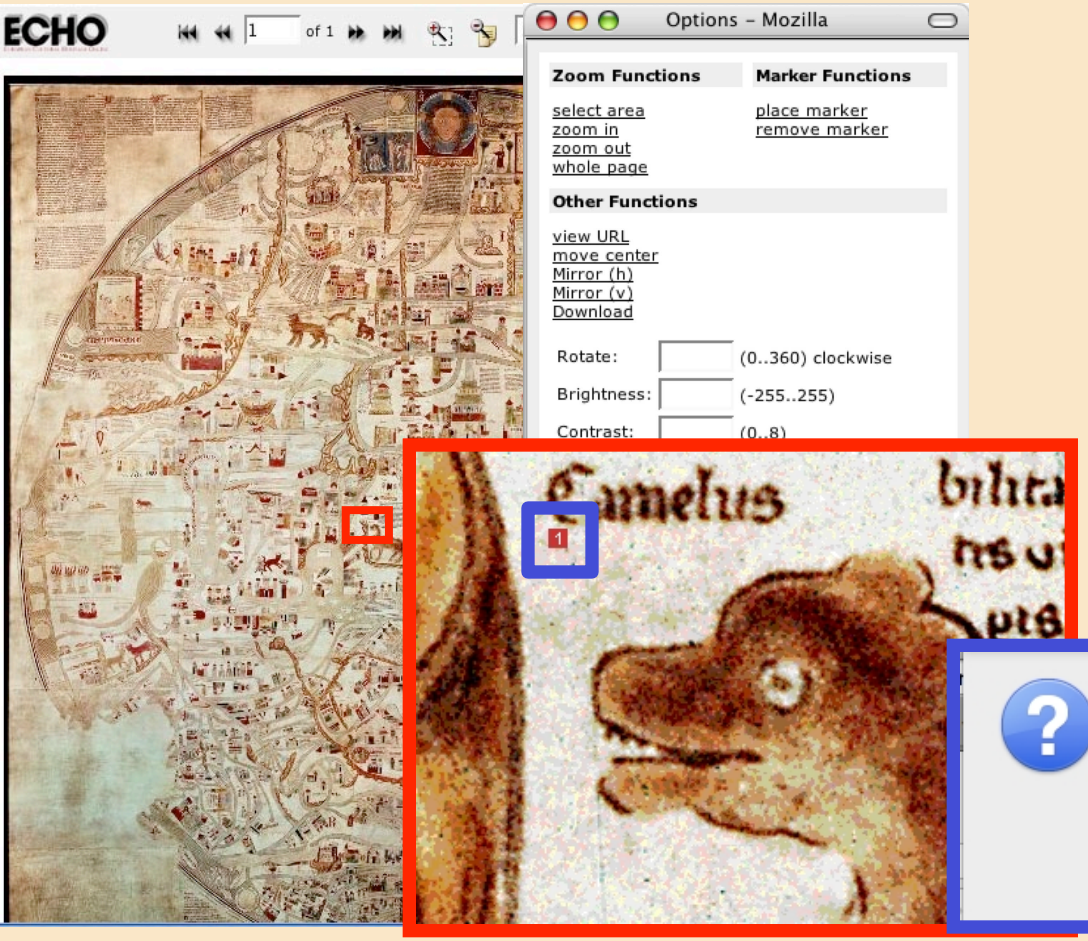
- digitization of primary sources
  - digitization campaigns (worldwide)
  - support of competence centers for digitization of cultural heritage (e.g. in Mongolia)
  - digitization of high quality images
  - production of structured full texts





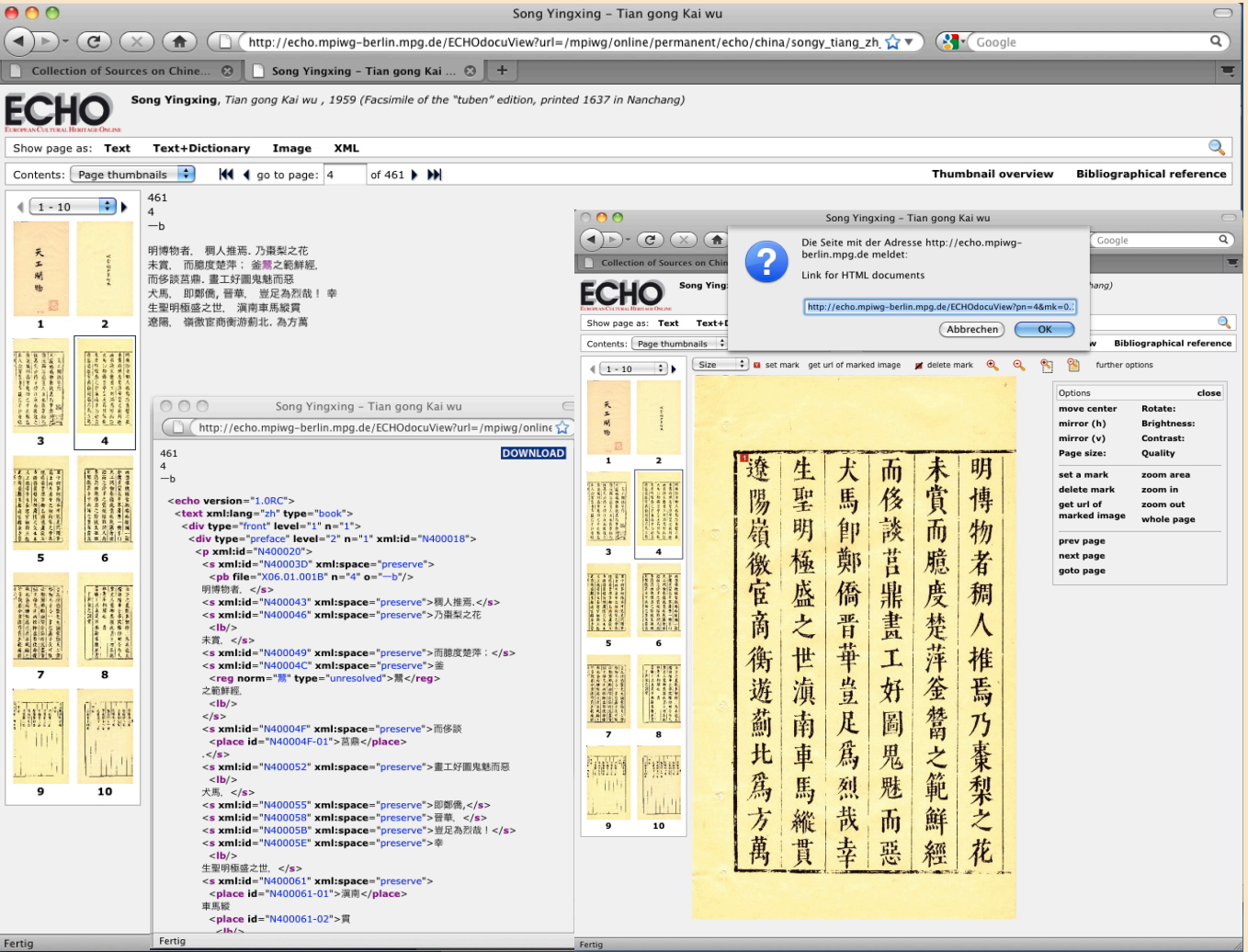
Research Driven Tool Development: Image Analysis and Annotation

Ebstorf World Map, 13th century



- development of tools and workflows for analysis and presentation of primary sources
  - image viewer *digilib*, for online image manipulation for specific research questions
- open access to sources and tools

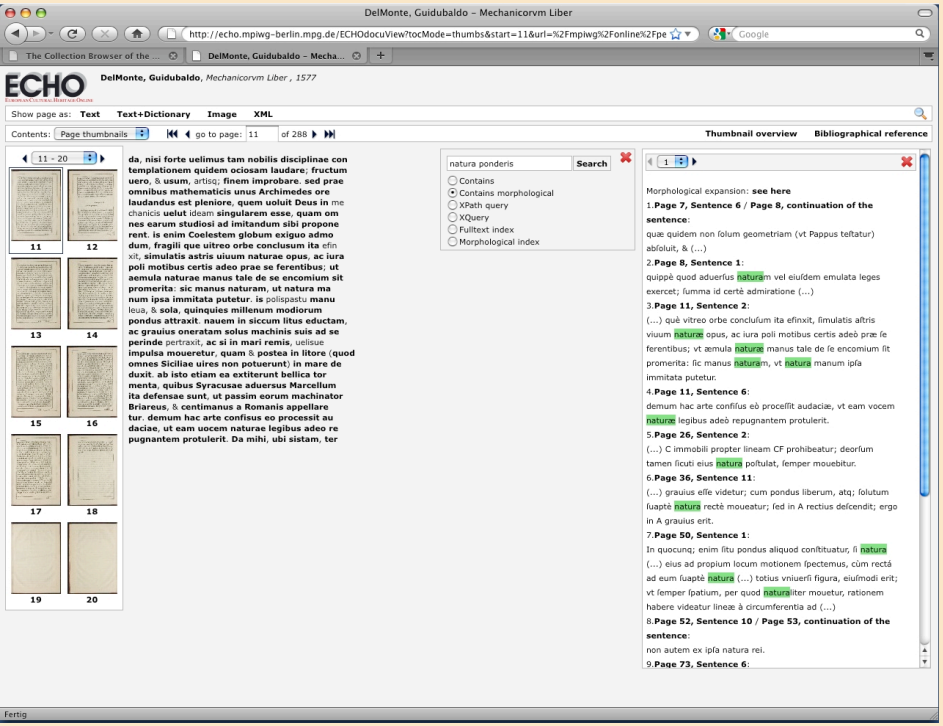
Research Driven Tool Development: XML-Text Production



- presentation of image and full text in a web-based working environment
  - image viewer
  - image annotation
  - verification of text transcription
  - download of full xml text

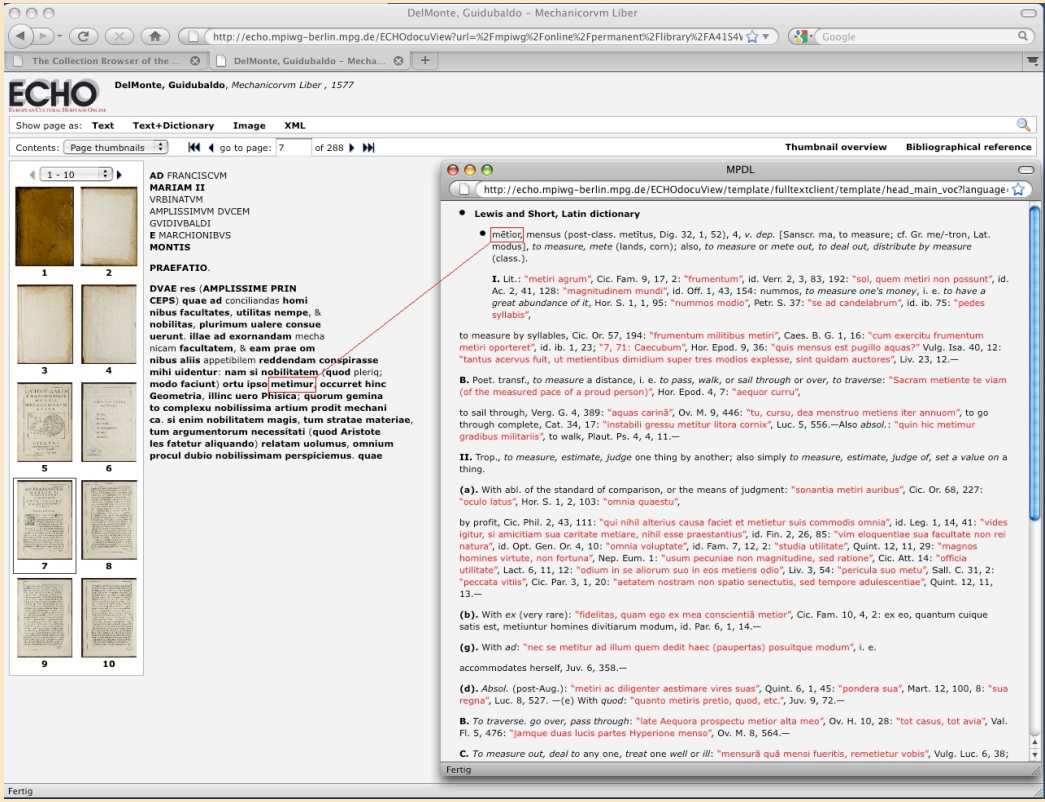
Working environment presenting digitized source with xml text, image with marker and corresponding URL for referencing

Research Driven Tool Development: Linguistic Analysis

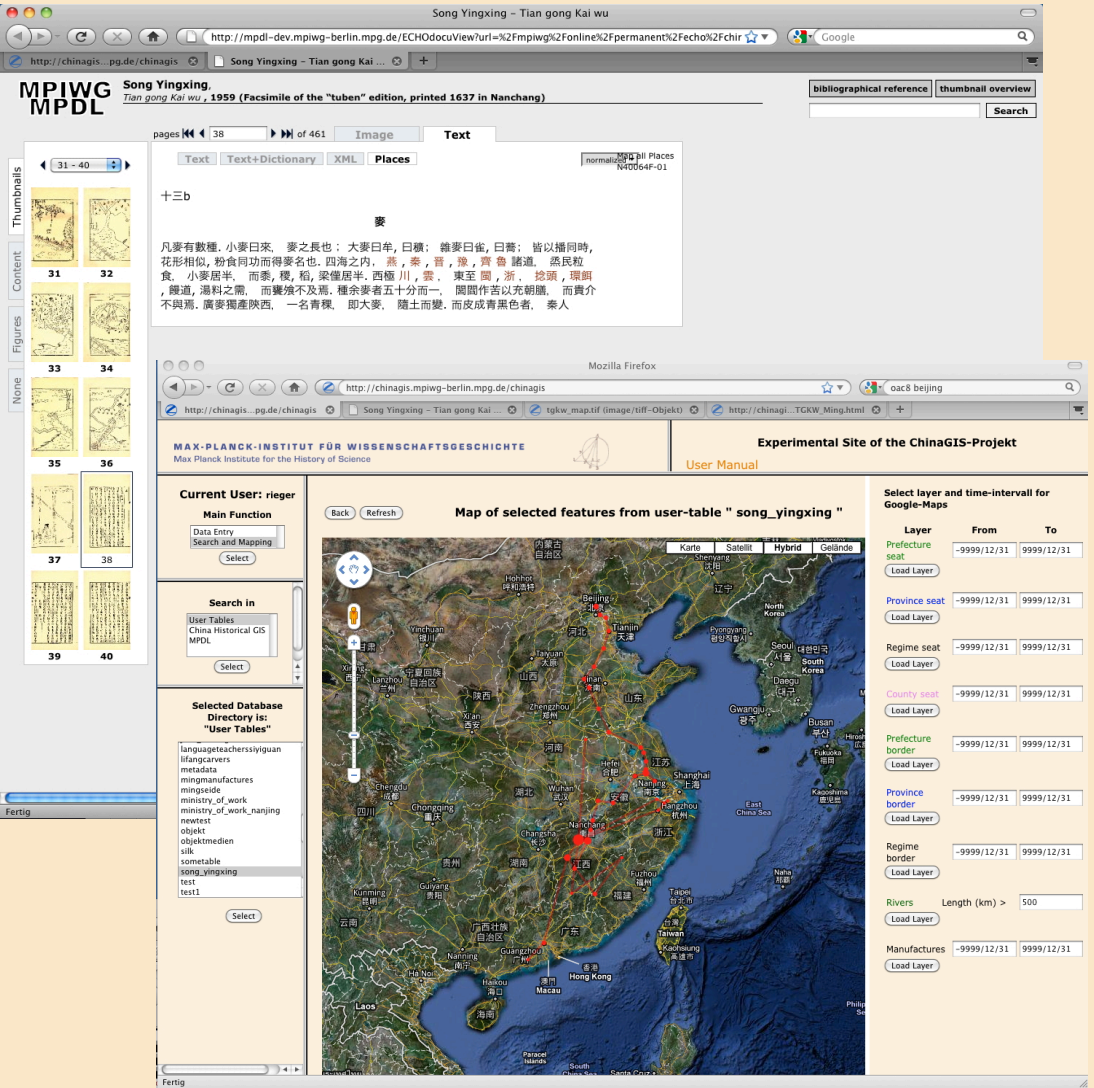


Working environment with digitized and morphological analyzed full text, linked with dictionary

- linking tools for text analysis and interpretation



Research Driven Tool Development: Data Analysis and Visualisation



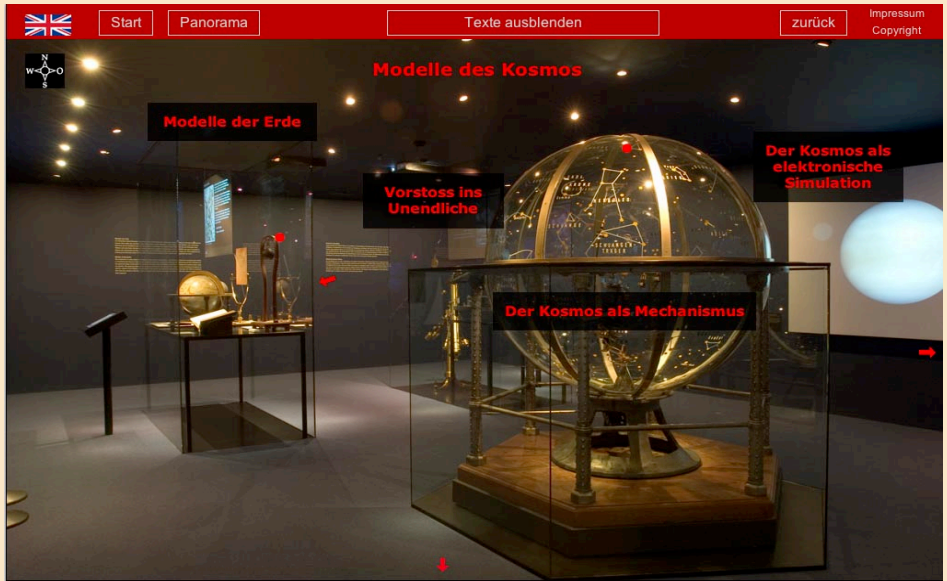
- historical data referring to time periods, specific dates or geographical locations
  - visualizing locations named in the text, other places of the time
- Tool map-Places-In-Time (*mapPIT*)
  - based on GoogleMaps combined with specific research database

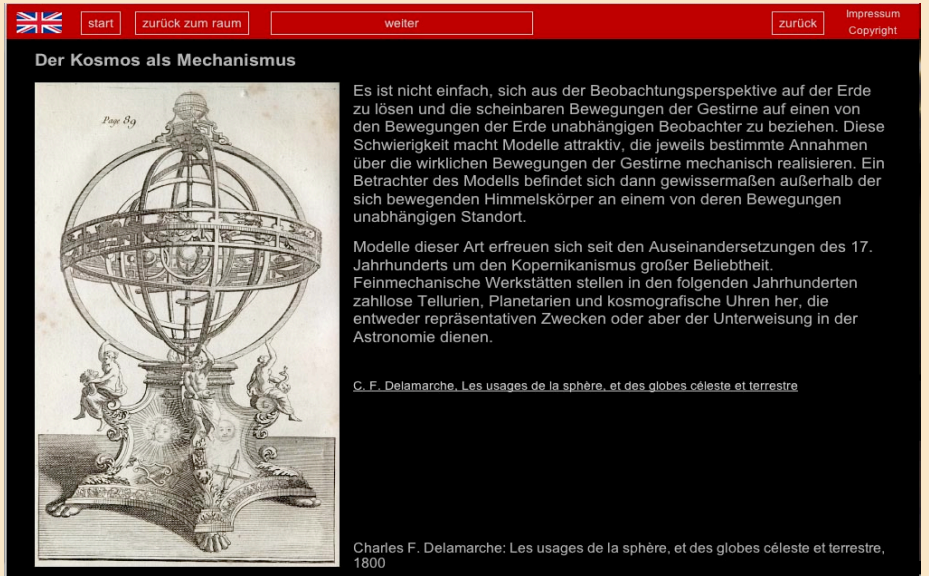
http://mappit.mpiwg-berlin.mpg.de/mappit

Research Driven Tool Development: Data Analysis and Visualization

- integration of objects from different collections and of different media types
- allow for different thematic approaches
- integration of Webservices (e.g. Google Earth)
- sustainable instrument to publish temporary exhibitions of real objects (*virtual spaces*)

Virtual Einstein exhibition: an exhibition without walls

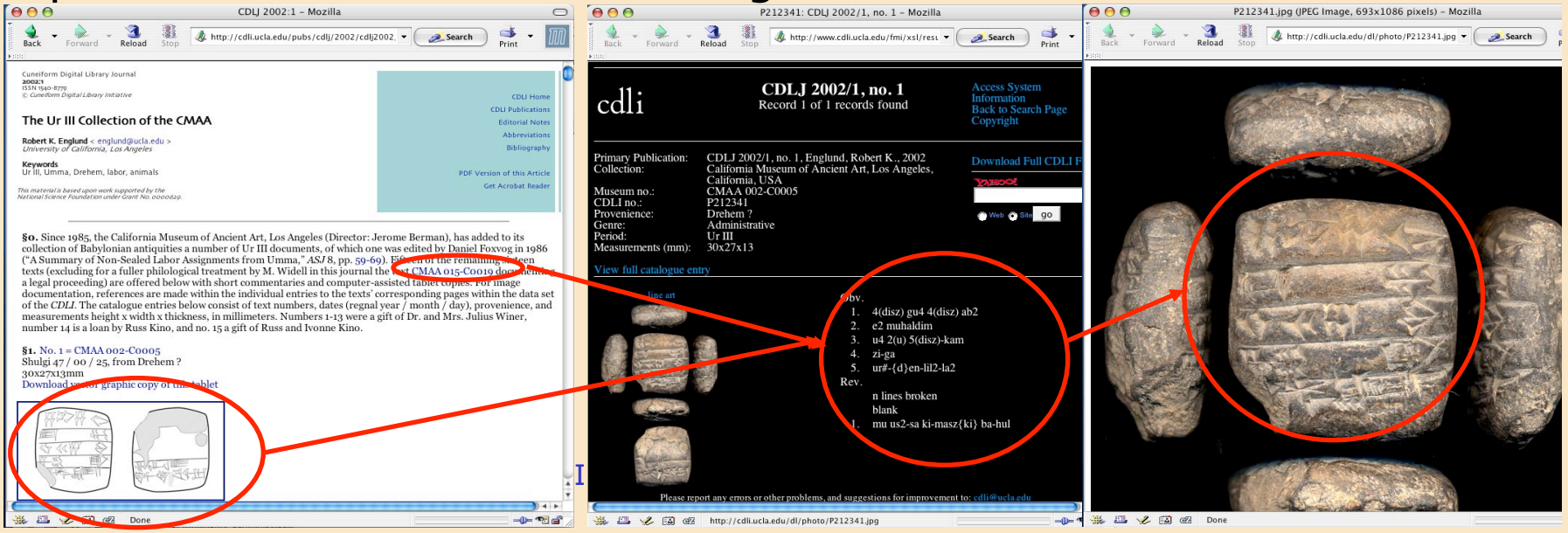




Publishing Research Results and Primary Sources

- online availability of sources, scholarly metadata and research results
- enabling collaborative work
- immediate verification of scholarly interpretation
- creating a new situation for peer reviewing
- preservation of cultural heritage

Open access journal of CDLI with hyperlinks to sources

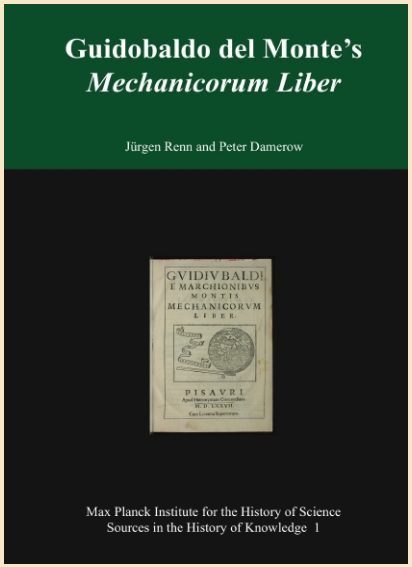


Publishing Research Results and Primary Sources

- the traditional way:

  printed book as aim

- obstacles
  - diminishing editorial support
  - high dissemination costs
  - space limitations
  - format limitations
  - high barriers for open access



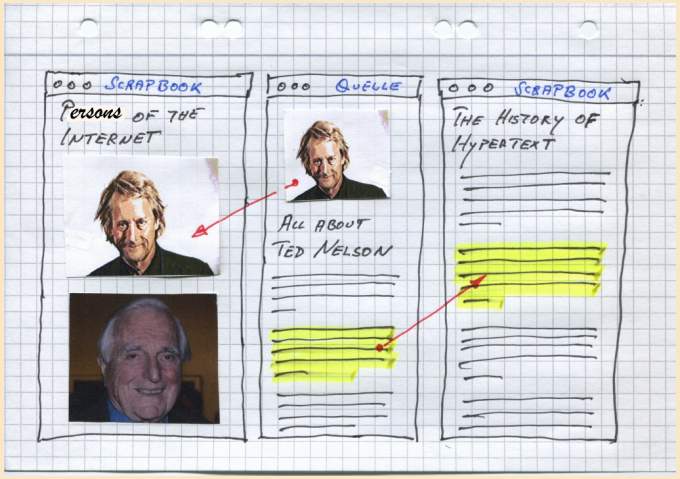
Max Planck Research Library
<www.edition-open-access>

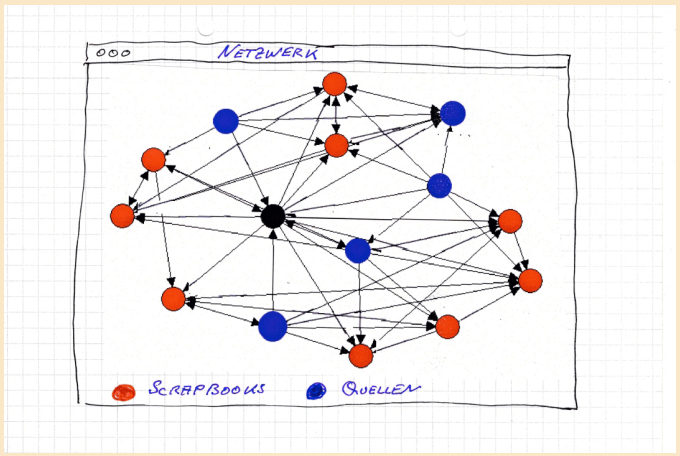
- the future perspective:

  sources and commentary online with additional print on demand

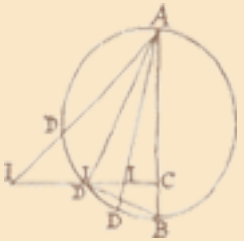
- benefits
  - workflow combining current status of research results with online sources
  - free download as e-publication book with creative commons license
  - additional print-on-demand service

Working with Primary Sources: "Digital Scrapbook"





- access to digital repositories (e.g. search for terms and concepts)
- scrapbook as "windows" to full sources
- annotions and commentaries to images and texts
- linking scrapbooks and sources
- integrating dynamic elements
- saving referenced data
- new publication paradigm: releases

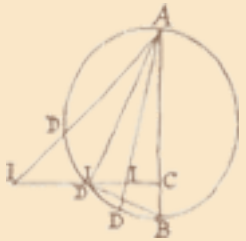


Recognition

"Our organizations are interested in the further promotion of the new open access paradigm to gain the most benefit for science and society. Therefore, we intend to make progress by

- […]
- advocating that open access publication **be recognized in promotion and tenure evaluation**.
- advocating the **intrinsic merit of contributions to an open access infrastructure by software tool development**, content provision, metadata creation, or the publication of individual articles."

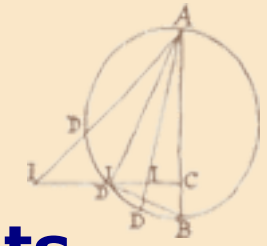
Max Planck Society,
"Berlin Declaration on Open Access to Knowledge in Science and Culture", 2003



Funding Issues

"We realize that the process of moving to open access changes the dissemination of knowledge with respect to legal and financial aspects. Our organizations aim to **find solutions that support further development** of the existing legal and financial frameworks in order to facilitate optimal use and access."

Max Planck Society,
"Berlin Declaration on Open Access to Knowledge in Science and Culture", 2003

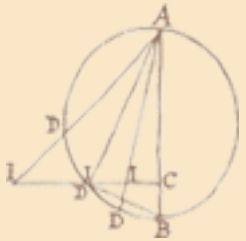


Advancement of Infrastructure Developments

- sustainability and generalization of content and research driven developments of single projects and research institutes
- innovation by cooperation
  - distributed competence and central management
- project "eSciDoc: Scholarly Workbench"
  - development of a publication management infrastructure and a scholarly workbench for the Humanities

eSciDoc PROJECT

ECHO EUROPEAN CULTURAL HERITAGE ONLINE



Thank you for your attention!

Urs Schoepflin

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