Cyberinfrastructure in the Humanities
Back to Supercomputing

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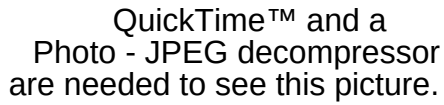
www.geoffreyrockwell.ca

theoreti.ca

portal.tapor.ca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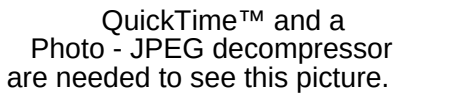

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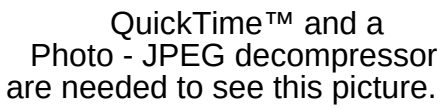

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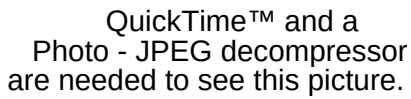
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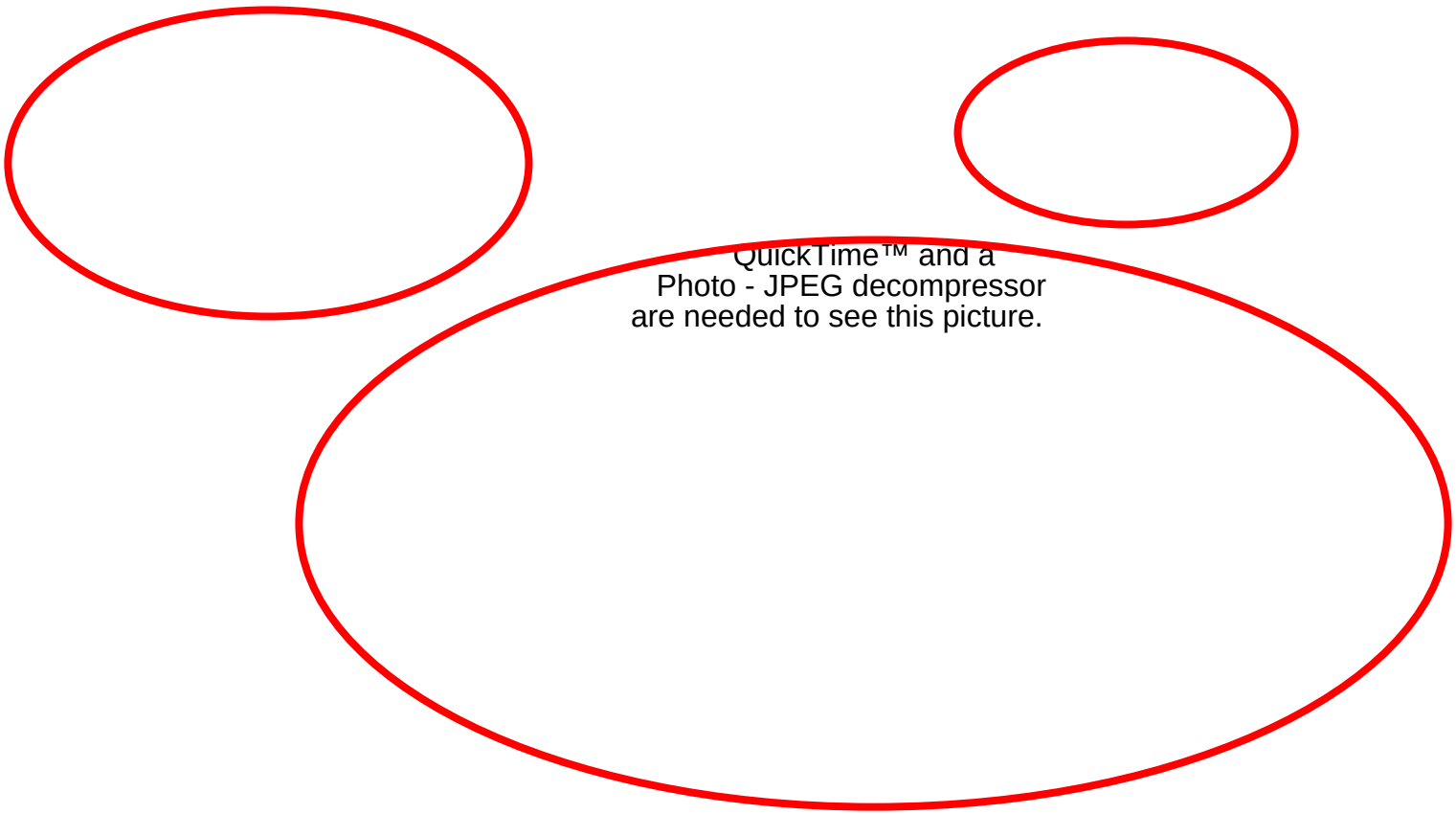
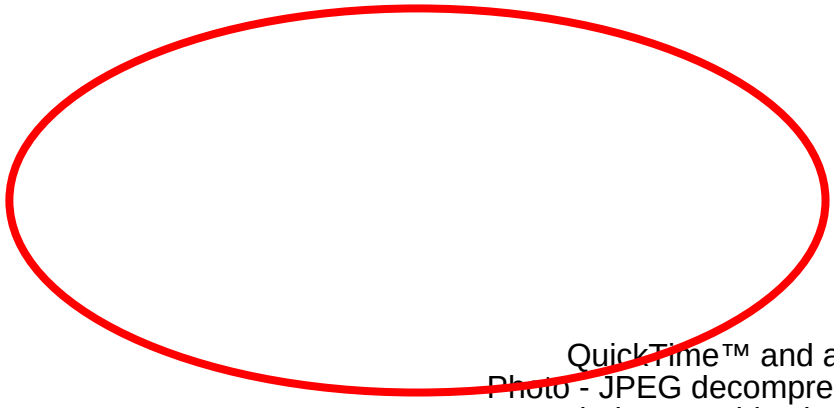
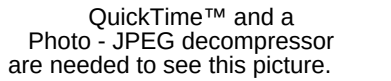
Inline Forms



Comparative Graphs

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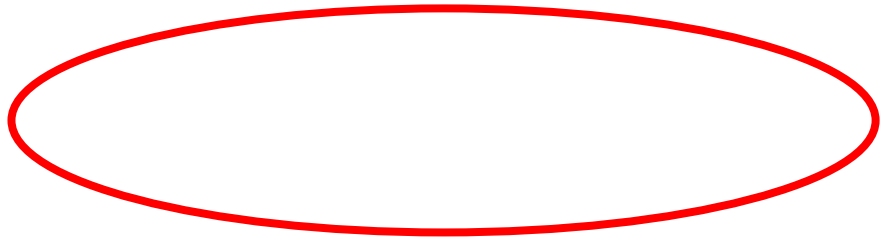
Submit Buttons



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Experimental Cycle

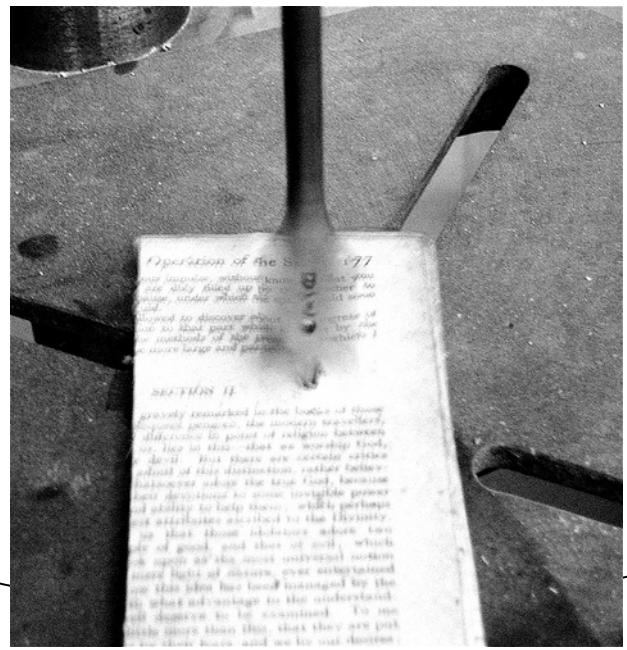
Preparing Texts

Analyzing Evidence

Writing Publishing

Conception

Gathering Evidence

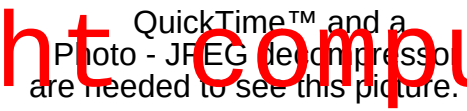


Phases and Tools

Wide Browsing	Blogs, Reviews, News, Conferences, Reading Rooms, Libraries, Discussion Lists, Recommendation Engines
Gathering & Note Taking	Indexes, Google, EndNote, Zotero, Note Taking Software, Word Processors, TAPoR
Writing & Thinking	Word Processors, Bibliographic Tools, Text Analysis Tools, Databases, Spreadsheets
Publishing	Wikis, Online Publishing Tools, Graphic Design, Multimedia, Page Layout, Text Encoding and

As we may research

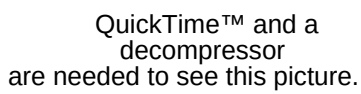
How might computing fit into the cycle of research?



Outline

- As we may research
- Describing the Issue in the Humanities
  - The Canadian Situation
- TAPoR Portal as Cyberinfrastructure
  - Gaps and Needs

Commonwealth



www.acls.org

Summary

Digital cultural heritage resources are a fundamental dataset for the humanities: these resources, combined with computer networks and software tools, now shape the way that scholars discover and make sense of the human record, while also shaping the way their findings are communicated to students,

Some Recommendations

6. Establish national centers to support scholarship that contributes to and exploits cyberinfrastructure.
7. Develop and maintain open standards and robust tools.
8. Create extensive and reusable digital collections.

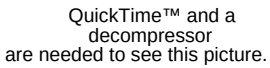
QuickTime™ and a
decompressor
are needed to see this picture.

Bamboo

Bamboo is a multi-institutional, interdisciplinary, and inter-organizational effort that brings together researchers in arts and humanities, computer scientists, information scientists, librarians, and campus information technologists to tackle the question:

How can we advance arts and humanities research through the

Virginia



- Interpretation
- Exploration of Resources
- Collaboration
- Visualization of Time, Space and Uncertainty

Tools for Data-Driven Research

- Professionalization of long term tool development and maintenance
- Tools and methods
- Audiences for tools
- Integration of tools and collections

How could we think?

Information Overload

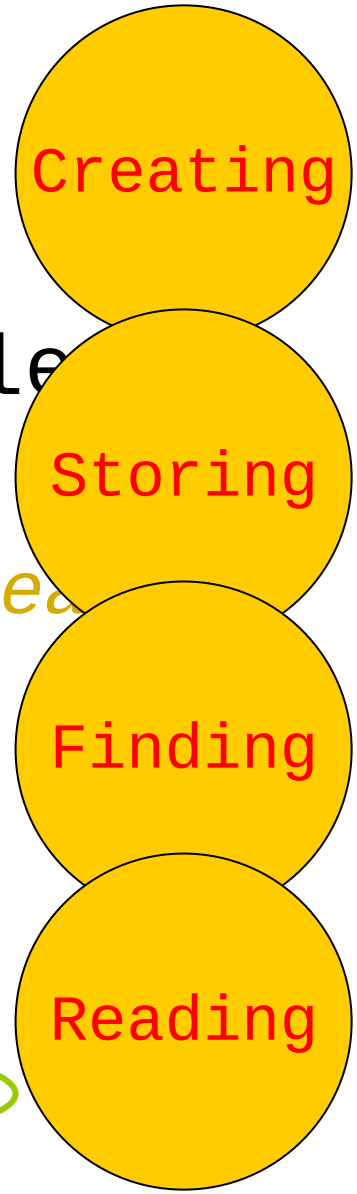
- 5 exabytes of information created in 2002
  - 37,000 new Libraries of Congress a year
  - 800 MB of information per person per year (30 feet of books)
  - 30% a year growth in new stored info
- Information is distributed and heterogeneous

Exabyte = 1,000,000,000,000,000,000

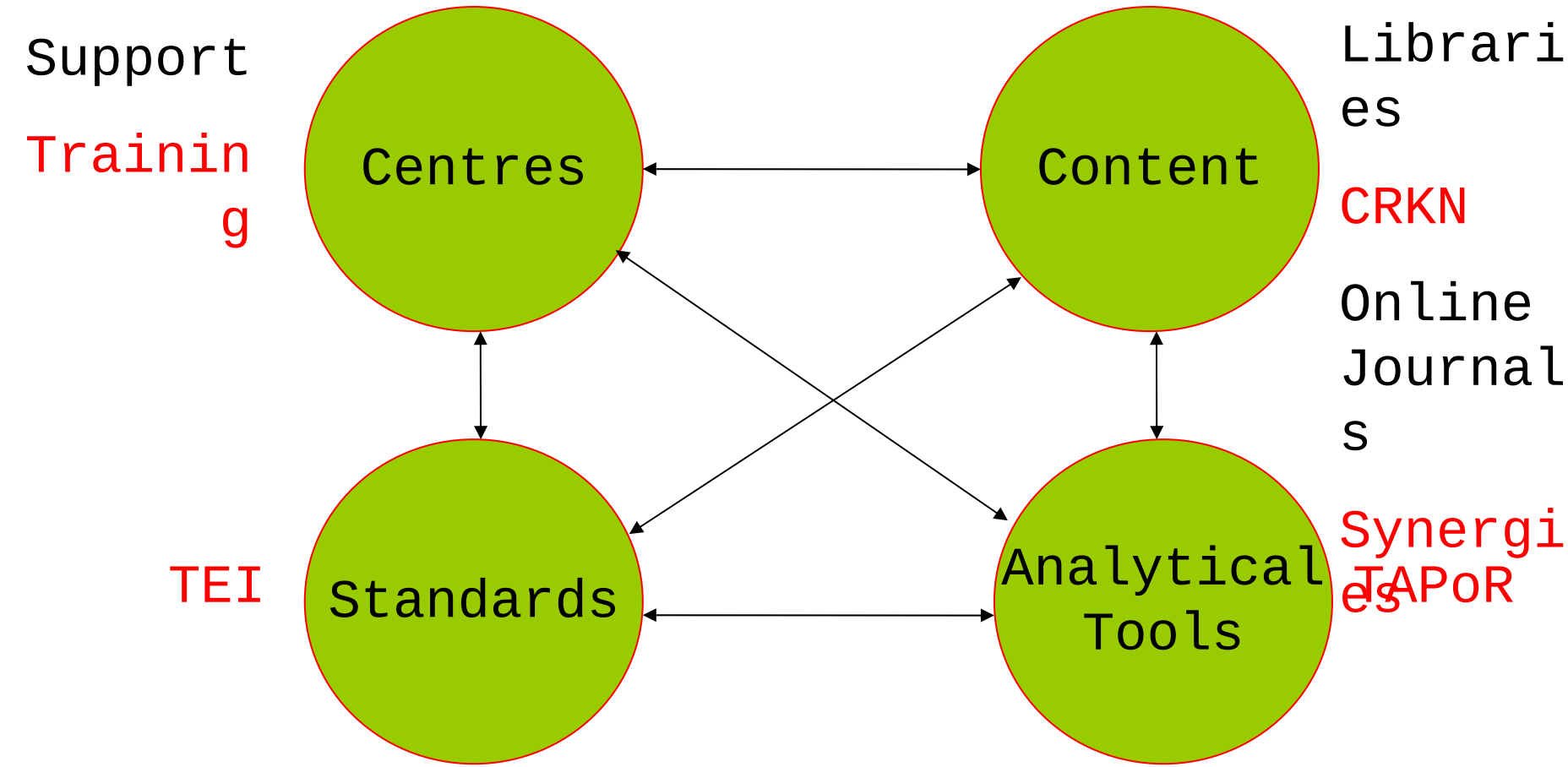
Source: "How Much

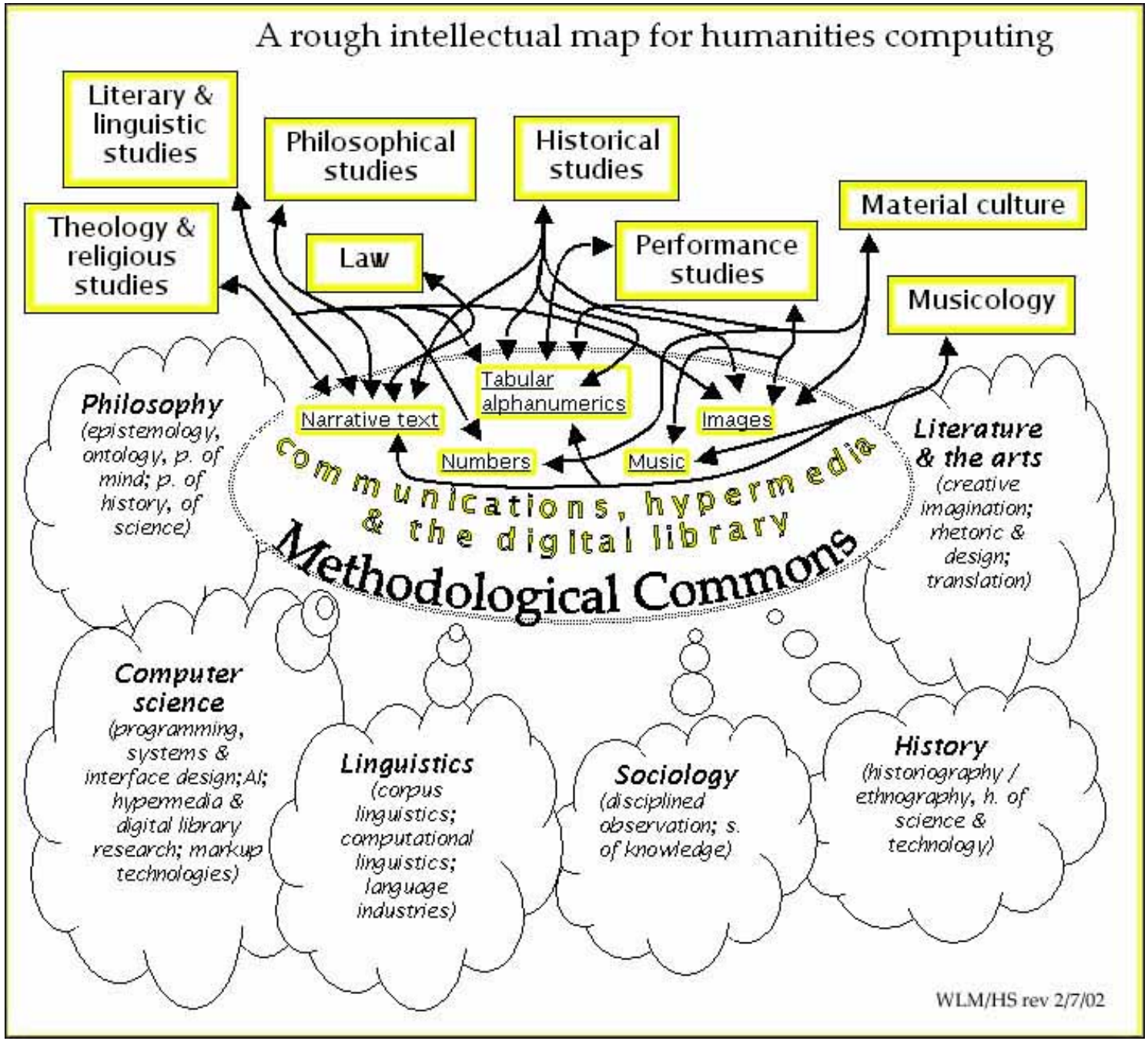
What to do?

- Understanding the proble
  - Literary problem
  - Not just another fix, *plea*
- Create smarter
- Open collections
- Standards
- Aggregation and mining



Overview


Support
Training
Centres
Content
Libraries
CRKN
Online Journals
Synergies
JAPoR
TEI
Standards
Analytical Tools


A rough intellectual map for humanities computing
Literary & linguistic studies
Philosophical studies
Historical studies
Material culture
Theology & religious studies
Law
Performance studies
Musicology
Tabular alphanumerics
Narrative text
Images
Numbers
Music
Communications, hypermedia & the digital library
Methodological Commons
Philosophy (epistemology, ontology, p. of mind; p. of history, of science)
Literature & the arts (creative imagination; rhetoric & design; translation)
Computer science (programming, systems & interface design; AI; hypermedia & digital library research; markup technologies)
Linguistics (corpus linguistics; computational linguistics; language industries)
Sociology (disciplined observation; s. of knowledge)
History (historiography / ethnography, h. of science & technology)
WLM/HS rev 2/7/02

The TAPoR Project

- Fundamental Research Infrastructure
  - Labs, Tools and Servers
- Portal for Text Analysis
- Community
  - Training, Conferences and Expertise

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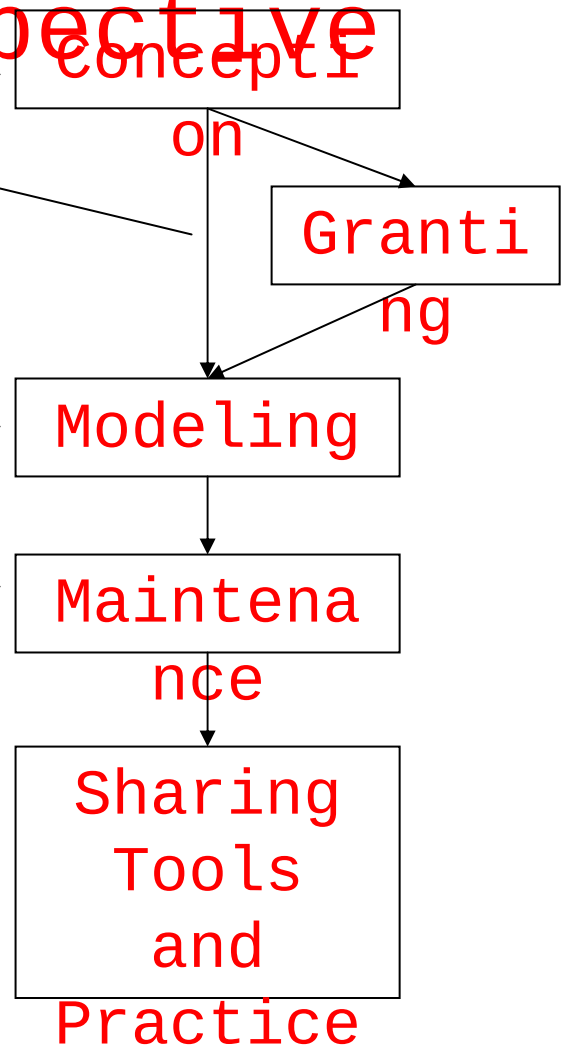
Fundamental Infrastructure

from a project perspective

- Advising and Support
  - Networked professional support
- Lab for projects
  - Meeting tools
- Server
  - Virtualization of Projects
- Technical Sharing
  - Tools and Practices



News

Training

Model

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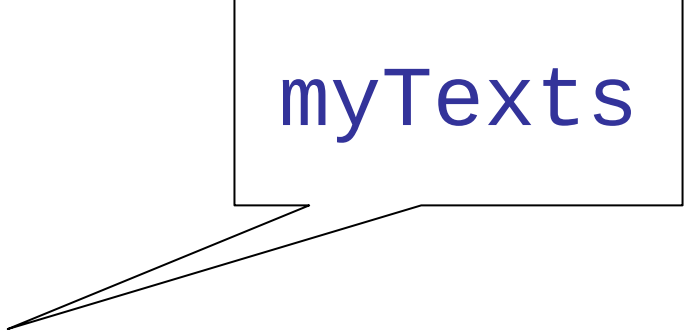
Tools

Projects

portal.tapor



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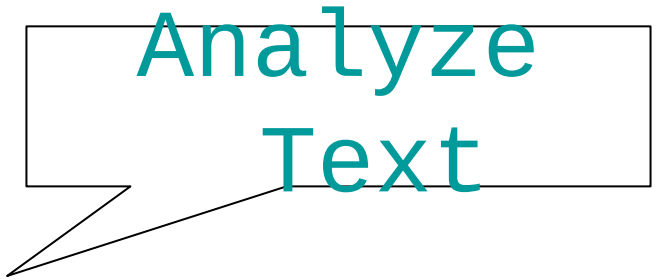

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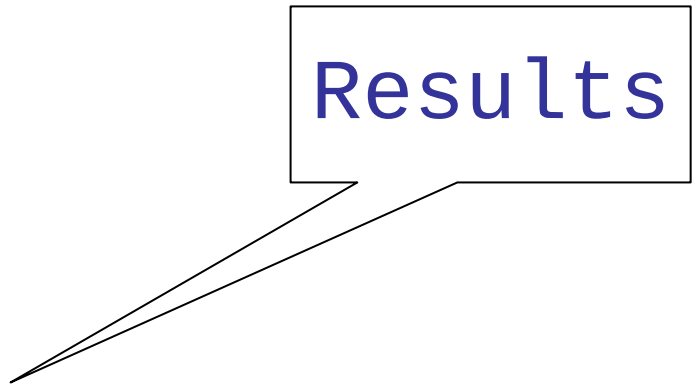
Results



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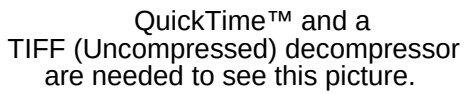
Research Log



Public Links

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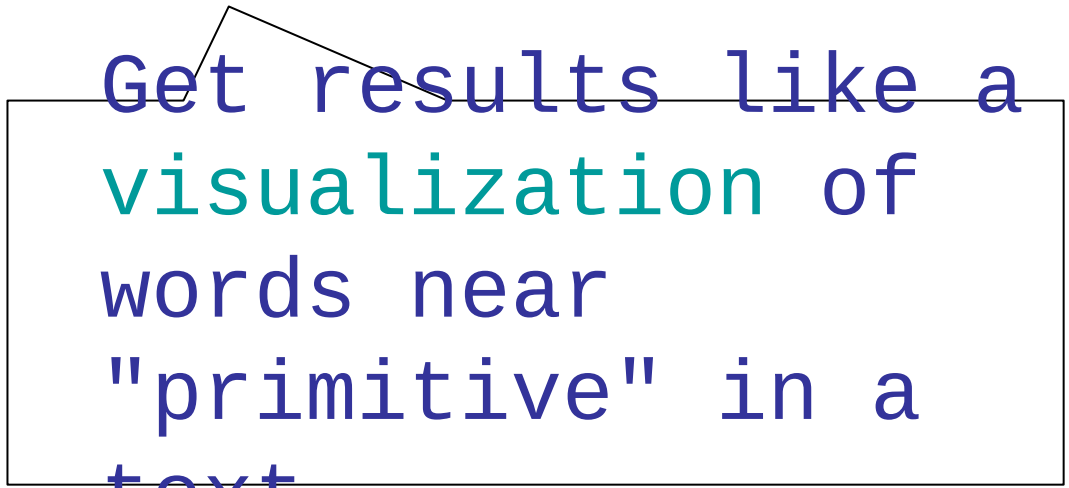

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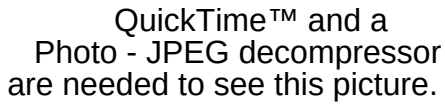
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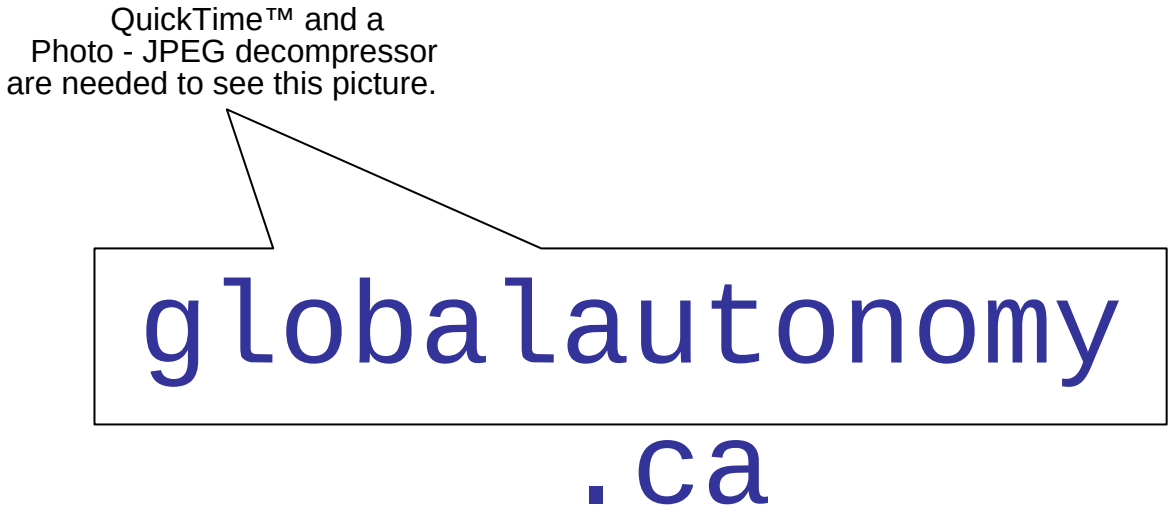
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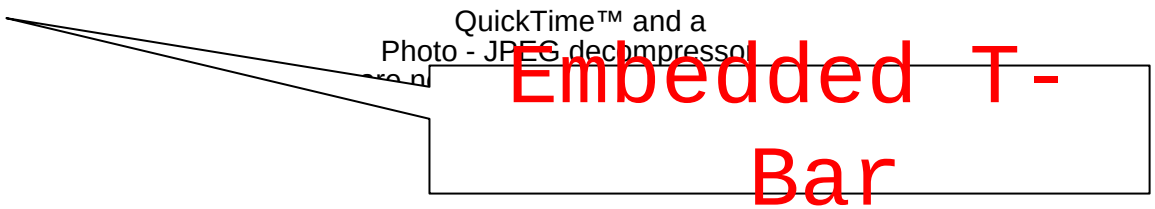
globalautonomy
.ca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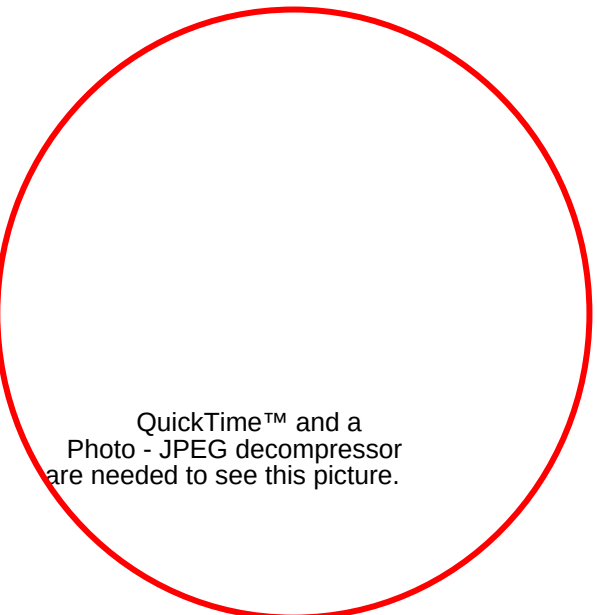

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OpenSocial

- Google announced 2007
- Application Programming Interfaces for
  - Containers (Hosts)
  - Social Applications

code.google.com/apis/opensocial/

Gaps and Needs

- Evolving infrastructure
  - How do we get a baseline of infrastructure?
- Problem of scale
  - How do we handle large and heterogeneous collections?
- Good (local) support beyond infrastructure
  - How do we train the next generation?
  - What is the mix between local and funded support?
- Middleware to use with National Platforms
  - How can we enable use of Compute

The Big See

- Back to Supercomputing

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- HP Visualization
- 3D Interactive Model
- Animated Texts

End

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