



# Helsinki Centre for Digital Humanities (Heldig)

## Roadmap 2016-2020

Heldig Kick-off Symposium

Oct 5, 2016

**Prof. Eero Hyvönen, Director of Heldig**

University of Helsinki, Faculty of Arts

Aalto University, Department of Computer Science

<http://heldig.fi>

<http://seco.cs.aalto.fi>

[eero.hyvonen@helsinki.fi](mailto:eero.hyvonen@helsinki.fi)

# Outline

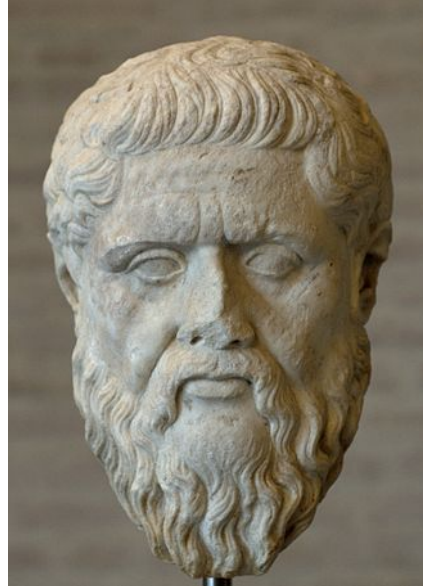
- What is Digital Humanities?
- What Heldig – Helsinki Centre for Digital Humanities?



## The Idea

<http://whatisdigitalhumanities.com/>

(817 definitions randomly selected at refresh)



## What Is Digital Humanities?

As I said on my blog: Digital Humanities is the discipline born from the intersection between humanities scholars and digital technologies. It aims at investigating how digital technologies are used to enhance research in disciplines such as Languages, Art History, Music, Cultural Studies, etc. Digital Humanities holds a very strong interdisciplinary character and includes the concrete creation of digital resources in specific disciplines.

### What Is Digital Humanities?

For this project we are going to explore the interdisciplinary impact and relationship between digital humanities projects we are seeking to create through digitalization projects, CDs and so forth that have been created to aid some DH projects in digital learning.

## What Is Digital Humanities?

Digital humanities is a field of study characterized by critical analysis of the relationship between the produced surfaces of digital media and the information structures and cultural structures that produce them; alternatively (or additionally) it is characterized by a critical interest in how humanities scholarship is produced, consumed, and transformed in and through digital media.

JULIA FLANDERS

## What Is Digital Humanities?

DH is the inevitable future at which we thought to have arrived decades ago. Never quite living up to its own hype and underestimated nonetheless.

some DH projects  
digital learning

ISABEL GALINA

## What Is Digital Humanities?

## What Is Digital Humanities?

I think I said last year that I dislike that question, and in some cases. Its boundaries are continually shifting and elusive. Even something as simple as 'Using computers and research in the Humanities' can have caveats. I recognize that the definition of DH might be desirable, but still: I dislike the question.

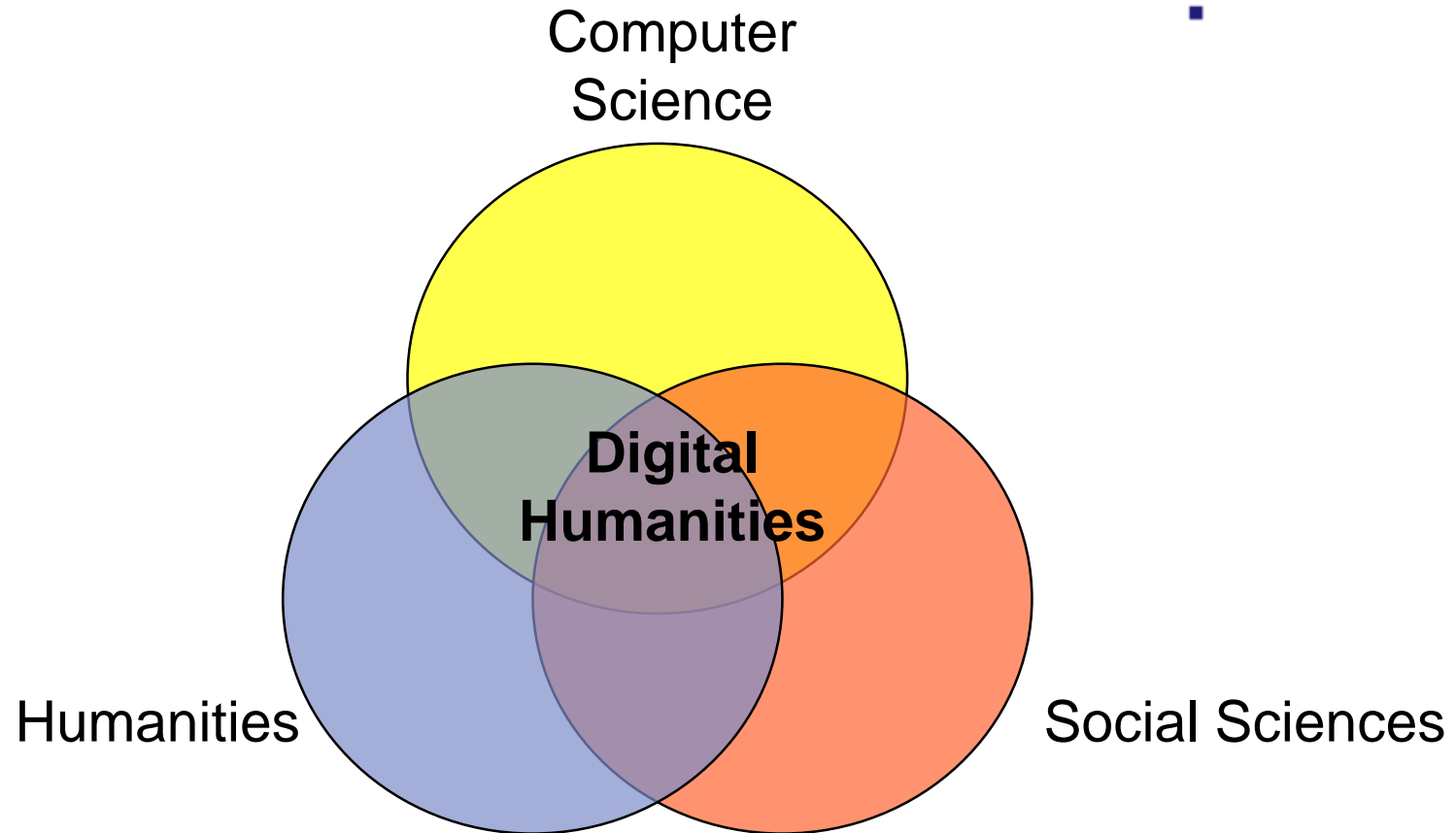
DH, standing for Digital Humanities, that couples digital humanities programs to digital humanities. I recognize that the definition of DH might be desirable, but still: I dislike the question.

## What Is Digital Humanities?

An obscure association famously made up of isolated people jointly concerned about the materiality of digital surrogates, the virtual qualities of physical relationships between avatars, and the creation of their own simulated utopia.

ALEJANDRO GIACOMETTI

JUSTIN TONRA



1. Using computational methods in H & SS
2. Studying digitalization as a phenomenon

# What is Heldig – Helsinki Centre for DH?



- Major strategic profiling initiative of the University of Helsinki
  - Goal: Foster Digital Humanities in 7 faculties
  - Budget ca 10 MEUR: Academy of Finland and UH
- Create new resources in UH
  - 8 new tenure track professors + personnel 2017-2020
- Coordinate existing resources in UH
- Network organization beyond UH
  - Core at University of Helsinki (Faculty of Arts leading)
  - Aalto University and other research organizations
  - National Library, National Archives, National Board of Antiquities, YLE, companies, ...
  - International research networks
- **Door is open: Welcome to Heldig network!**



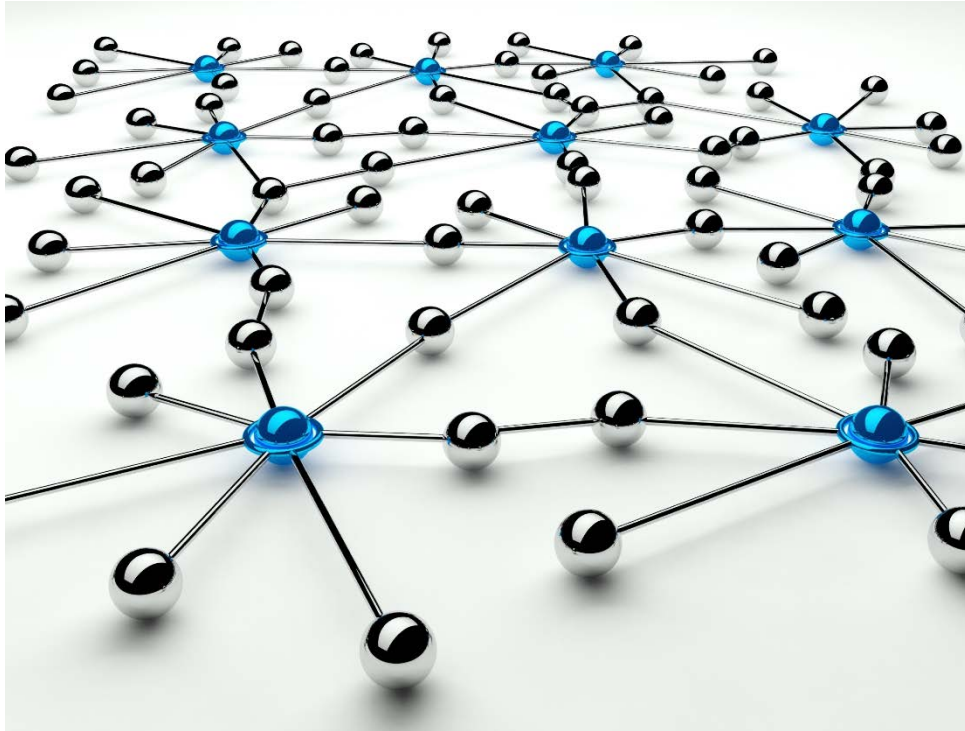
# Heldig Faculties

1. Faculty of Arts (coordinator)
2. Faculty of Behavioural Sciences
3. Faculty of Biological and Environmental Sciences
4. Faculty of Law
5. Faculty of Science
6. Faculty of Social Sciences
7. Faculty of Theology



# Heldig Vision

*Helsinki area will be a leading international hub of Digital Humanities research, education, and development in 2020*





# Heldig: Organizational Perspective

- Executive Officers
  - Director, coordinator, Heldig activists,...
- Management Board
  - Representatives from participating faculties at UH
- Advisory Board
  - Representatives from collaborating organizations

# Heldig: Linguistic Perspective

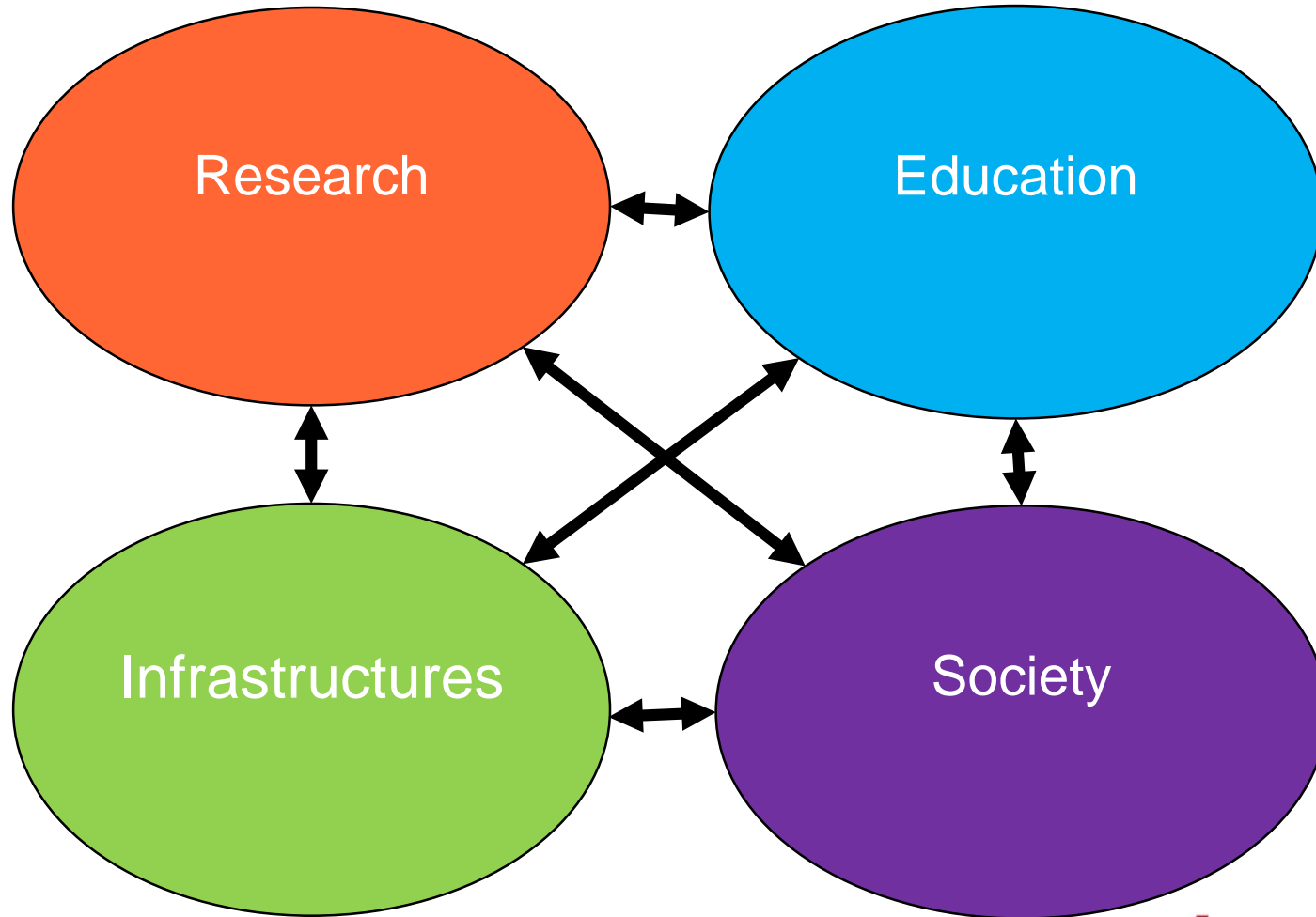
## heldig

1. lucky, fortunate
2. successful
3. favorable
4. beneficial, good
5. advisable
6. suitable
7. happy, felicitous



**Nomen est omen!**

# Mission: Helsing Strategic Areas



# Research: New Positions



- 8 new tenure track professors in 7 faculties 2017-2020
- **Computational methodologies and tools for DH**
  - Algorithmic data analysis in humanities and social sciences (2018)
  - Digital social science (2019)
  - Consumer behavior and digital innovations (2019)
  - Big data learning analytics (2019 with LEAD)
- **Digital humanities and globalization**
  - Russian big data methodology (2016 with INTERUS)
  - DH and global interactions (2018)
  - Religion and digital world (2018)
  - Legal research on digitalization (2019 with GL)
- Heldig director + research coordinator (2016-)

# Fostering Existing DH-related Research

## University of Helsinki

- Digital Materials (two professors)
- Digital Humanities (new tenure track in 2016)
- Over 50 UH professors mentioned in the Heldig application
  - E.g., several professors related to language technology

## Collaboration network

- Aalto University & HIIT
- University of the Arts
- Collaborating research organizations
- Collaborating memory organizations
- Collaborating media organizations
- Other organizations



# Infrastructures



## What?

- Data production & publication
- Tooling for DH research
- Foster Open Data and Open Source

## How?

- International collaborations
- Own development
  - Continue work at Aalto and UH on Linked Open Data infras
    - » FinnONTO 2003-2012, Linked Data Finland 2012-, Linked Open Science 2015-
  - Language technology (e.g., FIN-CLARIN, VARIENG), historical data, data mining, visualization, knowledge discovery etc.



# Education



- Develop the DH minor further at UH
- Extended focus: students + researchers + developers
- Technology support: Online interactive teaching materials

The screenshot shows a website with a blue navigation bar containing "Home", "About", "Project", and "Contact". Below the navigation bar is a light blue sidebar with the heading "Course Materials" and a numbered list of 10 topics. The main content area features a cartoon illustration of a woman pointing at a chalkboard, followed by the heading "Welcome to Linked Data School LinDa" and a section titled "Topic Description and Motivation" containing a paragraph of text. At the bottom of the main content area is the heading "Learning Goals".

**Home** About Project Contact

### Course Materials

1. **Linked Data: The Idea and Technology**
2. **Transforming Data into Linked Data**
  - a. Images into Text using OCR
  - b. Text into a Knowledge Graph
  - c. Tabular Data into a Knowledge Graph
  - d. XML Data into a Knowledge Graph
3. **Metadata Creation**
  - a. Manual Metadata Creation
  - b. Metadata Extraction from Text
4. **Data Cleaning**
5. **Data Linking**
6. **Data Enriching**
  - a. Inferencing New Triples by Rules
  - b. Enrichment using Statistical Methods
7. **Data Validation**
8. **Data Provenance**
9. **Linked Data Publication**
10. **Using Linked Data in Applications**
  - a. Using SPARQL in Programming

## Welcome to Linked Data School LinDa

### Topic Description and Motivation

Web of Data is a global megatrend in WWW development, coordinated by the World Wide Web Consortium (W3C), where the idea is to publish machine readable data on the web as semantic interlinked networks, i.e., as Linked Data. Based on such data, i.e., the "Giant Global Graph" (GGG), more intelligent and interoperable web applications for humans on the World Wide Web (WWW) of interlinked web pages can be created in a cost-efficient way. The emerging Semantic Web is used by both machines and humans.

Since 2001, a variety of standards and publication principles have been created for the Semantic Web, and there are lots of linked data repositories, publishing frameworks, tools, and services available to be used, most of them openly. The emerging semantic technology has been applied in various domains and also WWW giants such as Google, Yahoo, and Yandex have entered the game with e.g. data frameworks, such as Schema.org. For many application fields, such as Digital Humanities, the idea of representing and interlinking data as semantically well-defined structures introduces a new approach to tackle the challenges of data publication, analysis, visualization, and knowledge discovery. A hinder for even faster adaptation of the new approach has been learning materials targeted for not only professional programmers but even more importantly for data analysts, researchers, and application developers in various application fields dealing with data.

### Learning Goals

# Society



- Digitalization and globalization is changing the world
  - Research on effects of digitalization is needed!
- Foster Open Research and Science

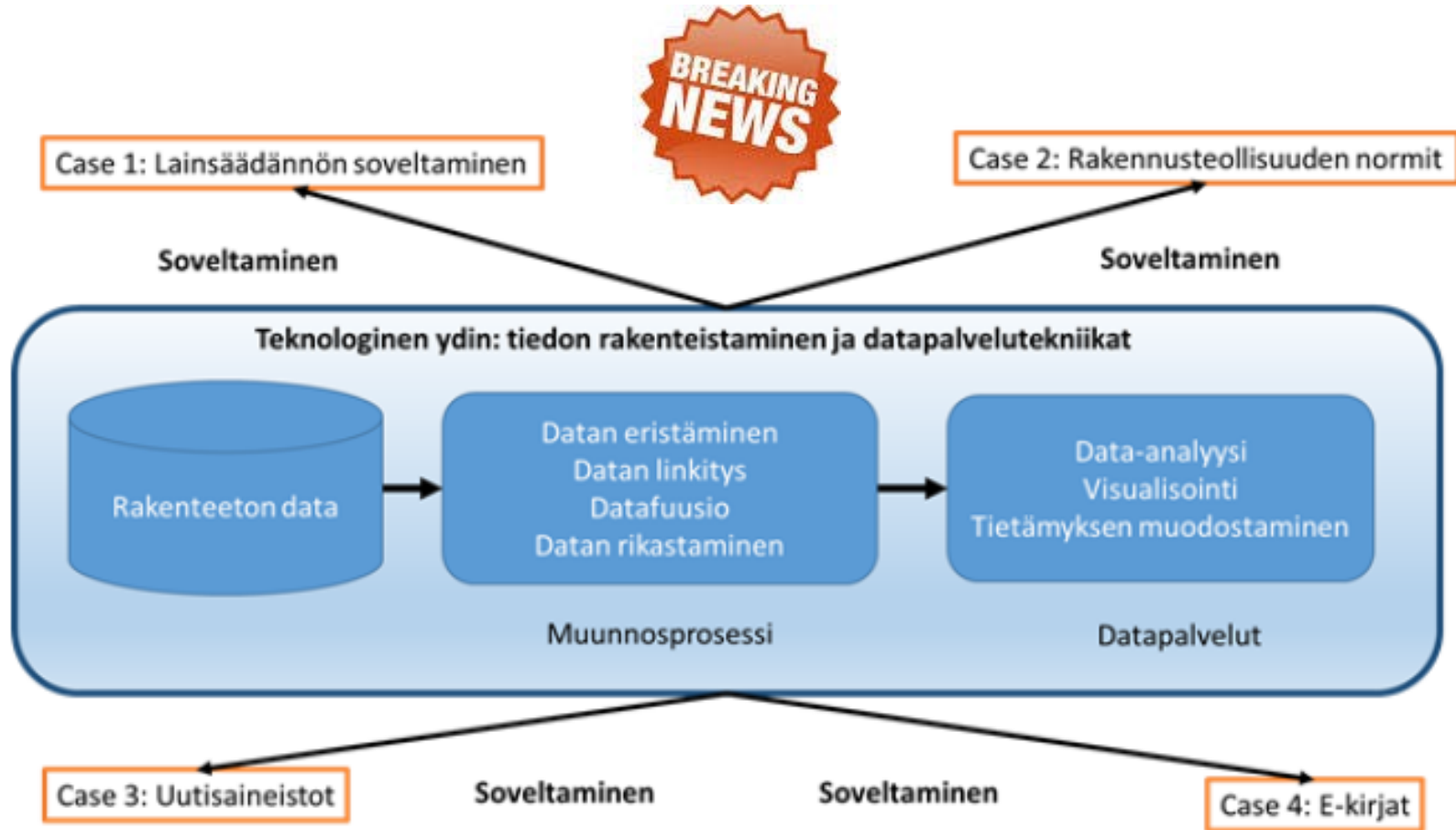


OPEN SCIENCE  
AND RESEARCH



# Example project: Severi (1.9.2016-31.5.2018)

## "Texts as semantic dataservices on the Web"



Kuva 1.1. Severi-hankkeen idea ja rakenne.

# Severi Project Consortium

- CSC Oy
  - Edita Publishing Oy
  - Lingsoft Oy
  - Oikeusministeriö
  - Rakennustieto Oy
  - Suomalaisen Kirjallisuuden Seura
  - Svenska Litteratur Sällskapet i Finland
  - Tekes
  - Tekniikan akateemiset TEK
  - YLE Oy
- 
- Aalto-yliopisto
  - Heldig – Helsinki Centre for Digital Humanities
  - Collaborations: Oxford, Stanford, Colorado

# Summary:

## What makes Heldig special?



*Heldig provides a new kind of platform for addressing the challenges of digitalization, based on multi- and interdisciplinary research and collaboration in humanities, social sciences, and computer science. By fostering collaboration and by sharing research infrastructures not only within the University of Helsinki but with other organizations in the Helsinki area and beyond, relevant research problems and data can be found, unnecessary duplicate work can be eliminated, and more resources be targeted to Digital Humanities research and education.*

**Alea iacta est!**



# More Info about Heldig:

<http://heldig.fi>



We study humanities & social science research questions with new methods. The idea is to form an ecosystem that fosters collaboration between research groups, memory organisations and the general public. Join us!

... more on what digital humanities means for us



**DHH16 DIGITAL HUMANITIES HACKATHON 2016**

#DHH16 presentations on Friday 20 May 2016

**@HELSINKIDH**

DH Helsinki Retweeted

**Mikko Tolonen** @mikko\_tolonen  
Digital Humanities doctoral student position open @helsinkiuni, helsinki.fi/en/researchgro ... #HelsinkiDH

DH Helsinki Retweeted

**Mikko Tolonen** @mikko\_tolonen  
"Introduction to Digital Humanities" @helsinkiuni. Course begins in September, sign up now: bit.ly/2apmrK2 w/ @jiemakel #HelsinkiDH

- Events →
- People →
- Projects →
- Teaching →
- Publications →
- Jobs →

## NEWS



**DIGITAL HUMANITIES HACKATHON 2016**



12.8.2016 | LANGUAGE & CULTURE



**STRATAS PROJECT FUNDED**

