

## Why train in a Research Infrastructure?



- RIs are becoming more than a trnsparent support layer, but a way of thinking about research development in Europe
- Impact on the ways we collaborate, career structures, funding, data sharing, publications, policy....
- In spite of this transformational role, still seen a closed system
- Tendency in RI projects only to create training on the use of platforms and tools: but is this enough?

## Overarching Principles, PARTHENOS Initial Training Plan (Tasks 7.1,7.2)

- 1. The PARTHENOS Training Plan is aimed at the PARTHENOS target research community, i.e. those researchers working in the broad sector of Linguistic Studies, Humanities, Cultural Heritage, History, Archaeology, availing of ICT methods and tools (not just users of a future PARTHENOS platform).
- 2. The PARTHENOS Training Plan will address two levels of user need: the 'need to know about' (awareness raising) and the 'need to know how to do' (skills building).
- 3. Although PARTHENOS is a research infrastructure project, we must conceive of our training interventions as as relevant far more broadly than to researchers only.
- 4. Given the resource restrictions within the project, PARTHENOS will focus on asynchronous delivery, 'train the trainers' approaches and partnerships with other projects and initiatives (DARIAH Teach, RI Train) to attain maximum impact.

## **Target audiences**

## **Discipline Perspective**

Studies of the Past

Language-related Studies

Heritage & Applied Disciplines

Social Sciences (this category was later queried and largely removed from consideration)

## **Role Perspective**

Researcher Practitioner

**Cultural Heritage Practitioner** 

Developers and Technicians as Practitioner

The Executive Level: Management and Policy Makers

## Result

An initial suite of 3 proposed modules, each with a number of semi-independent components

"Introduction to Research Infrastructures" (Beginner)

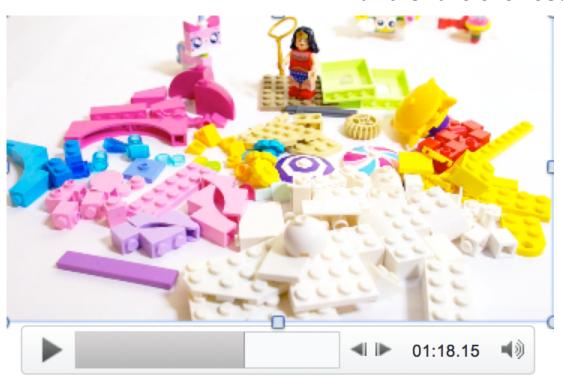
"Management Challenges in Research Infrastructures" (Intermediate)

"Collaboration and the Research Infrastructure" (Advanced)

plus the commitment to a Phase 2 plan

## "Introduction to Research Infrastructures"

"Research Infrastructures bring together diverse resources and make them usable and available for the long term in order to conduct research (either individually or collaboratively) and share the results of that research"



- Broad Novice Target Audience
- Lay person's language
- Two key concepts:
  - Interoperability (to cover issues related to the federation of heterogeneous data, including metadata, standards and ontologies) and
  - Sustainability (to cover the data lifecycle, best practices in data management, making information discoverable, and Intellectual Property Rights and licensing).
  - Multiple formats: text, learning support, video,
     F2F, brochure

## Management Challenges in Research Infrastructures



- RIs differ from other or generic projects through their scale and complexity
- Target audience: Managers of digital projects or facilities (research or cultural heritage based)
- Three Topics:
  - Disseminating to and communicating with diverse audiences (with WP 8)
  - Recruiting user input and validation (with WP 2)
  - Defining and delivering on sustainability (with CENDARI/DARIAH)
- Short and long F2F, asynchronous, case studies and tools

### Collaboration and the Research Infrastructure

- Collaboration as a key component of infrastructure development
- Target audiences: developers currently or hoping to work in the development of humanities research infrastructures,
- cultural heritage practitioners; research infrastructure users and managers
- Two units (currently):
  - Sharing Data with and Through Research Infrastructures
  - Humanistic Knowledge Creation and Research Processes
- Available online or F2F, in longer or shorter forms, with video evidence, text and links



"He said ... She said" (knowledge creation in computer science and the humanities)





## ESU Leipzig – July 2016



- 5 participants from all over the world (except Europe!)
- Lectures from Jennifer and Franco
- from the Initial Training Plan ("What is a Research Infrastructure?" "Management Issues at Infrastructure Scale;" and "Collaborations and Research Infrastructure"
- Good response, in spite of the very different professional contexts of the students (non-European conceptions of RI)

		Monday	Tuesday	Wednesday	Thursday	Friday
		What is infrastructure 1?	Designing and Managing Infrastructure 1	Designing and Managing Infrastructure 3	The Collaborations of Infrastructure 2	Framework Conditions for Infrastructure in Europe
ESU 2016 1-week workshop on  "Digital Research Infrastructures in the Humanities: How to Use, Build	9:15-10:45 10:45-11:15	The "Dummies Guide" to Infrastructure	Introduction to the management concerns of infrastructures  Key theme 1: User Engagement		What do we know about DH Collaborations?  Epistemic Cultures in research	Infrastructure development and funding in Europe (and somewhat beyond): Franco Niccolucci, Coordinator, PARTHENOS Project
	10:15:10:45	Applying the "Infrastructure Scorecard"	Key theme 2: The audiences of an infrastructure		He said, She Said Epistemic Cultures in Action. Part 1: Prof Owen Conlan, Trinity College Dublin (by video)	Discussion with Franco Niccolucci
and Maintain	10:45 - 11:15	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break
Them"	10.43 11.13	Correct Break	Correct break	correct break	correct break	Correct Break
PARTHENOS-proj	11:15-11:45	Results of the Infra Scorecard	Developing a communications plan	Working with CHIs (Ausflug? Guest Lecture? Workshop?) - Sharing Data through Ris	"He said, She Said" Epistemic Cultures in Action. Part 2.	Career Pathways and infrastructural disruption; Open Science: Threat or Opportunity for Humanities Research Infrastructure?
	11:45 - 12:15		Discussion: user engagement and communication		What is your 'epistemic culture?'	Discussion: What is the future
	12:15-12:45	The Infrastructural Turn in Humanities Research: History, Theory, Critiques	Theme 3: Sustainability Planning		Discussion of Collaboration and Epistemic cultures in research and infrastructure	trajectory of the infrastructural turn? Can we democratise digital humanities through infrastructure?

## training.parthenos-project.eu

Support independent learning and 'train the trainer'

Flexible structure that can expand with the project

Guidelines for future contributions nearly complete.

Engaging but authoritative



↑ TRAINING MODULES

FOR TRAINERS

FOR LEARNERS

**ABOUT TRAINING** 

## PARTHENOS TRAINING

#### Welcome!

This site provides training modules and resources in digital humanities and research infrastructures from PARTHENOS and associated projects. This site can be used by both learners and trainers alike. Please click on the images below to get started.

Training modules



For Trainers



For Learners



About PARTHENOS Training



We are keen to get your feedback: you can contact us by email, or fill in our feedback form here.





# MANAGEMENT CHALLENGES IN RESEARCH INFRASTRUCTURES

Engage people at every level of awareness of infrastructure, across the three originally defined themes

Deliver tacit and explicit knowledge

Showcase project results in a new, reusable, fashion

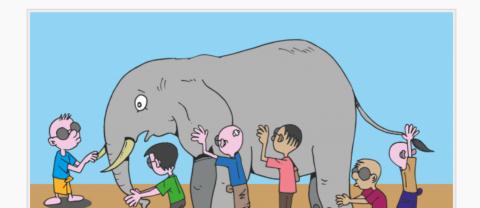
In this section.

- PARTHENOS training
  - Introduction to Research Infrastructures
  - Management Challenges in Research Infrastructures
    - Sustainability for Research Infrastructures
    - User Engagement
    - Macro-level Issues
       Facing the
       Research
       Infrastructure
    - Audiences and Communication
  - Introduction to Collaboration in Research Infrastructures
  - Standards in Research Infrastructures

Many people who work within research infrastructures have formal qualifications in business administration or project management. And many of these individuals would agree with the statement that working in an RI is just different from the world presented in their coursework.

#### Why would this be?

For one thing, the RI embodies quite a few contradictions: they are often both small (in terms of core team) and big (in terms of the wider contributor base). They may have a highly skilled and motivated workforce, largely consisting of people trained to do something quite different. Most importantly they almost certainly have a very broad user base, within which a number of different primary needs may be prominent, leading them to perceive the RI as one of a number of very different things: a source for data, the centre for key networks, a reference point and knowledge base, a technical model and maintainer of a toolkit, etc. In other words, an infrastructure is like an elephant, which may seem to the uninitiated user (that is, the 'blind man' of the proverbs) to be something different entirely depending on the angle from which that user approaches.







## Introductory Text for

11 Lectures (5-25minutes)

each Topic

3 Lego Videos

Images and illustrations

# MACRO-LEVEL ISSUES FACING THE RESEARCH INFRASTRUCTURE

#### In this section...

- PARTHENOS training
  - Introduction to Research Infrastructures
  - Management
     Challenges in Research
     Infrastructures
    - Sustainability for Research Infrastructures
    - User Engagement
    - Macro-level Issues
       Facing the
       Research
       Infrastructure
    - Audiences and Communication
  - Introduction to Collaboration in Research Infrastructures
  - Standards in Research Infrastructures

#### By the end of this section, you should be able to:

- Understand some of the macro-level issues that define the environment in which research infrastructures develop
- Define strategies to address the challenges these issues present

Developing at infrastructure scale presents a wide range of challenges. One in particular that is greatly different in an infrastructure than in a more restricted scale project is how you interact with wider issues of policy and the macro-level environment in which you are operating.

Because they are larger, infrastructures generally make a greater call upon resources. As such, they need to consolidate activities and indeed funding to succeed. This will likely require at least some time dedicated to lobbying or other activities aimed at communicating the value of your work to institutional, national or super-national decision makers. This is a particular communications challenge (which we have tried to support with this brochure "Why Invest in Humanities Research Infrastructure."

The points above are elaborated upon in the following lecture.





## FOR TRAINERS

3 Student Exercises

1 PDF brochure

1 Syllabus deployment

Learning Objectives and Further Reading for each unit

#### In this section...

- For Trainers
  - Videos
  - Training Slides
  - Suggested Course Outlines
  - Brochures and printed materials
  - Other Teaching Resources

Although they have organised to suit self-learners as well, the PARTHENOS Project training materials are primarily intended as 'train-the-trainers' support materials. Although research infrastructures and projects are becoming more and more of a destination for DH graduates, their operations are often at one remove from the academic units providing their training. The materials on this web site are intended to assist in bridging that gap, overcoming the general inclination within infrastructure projects to provide only training on tools, rather than finding effective ways to transfer a greater bulk of our experiential knowledge.

#### Level of the Materials

The materials on this site generally map to one of three learning levels:

- 1 Beginner Level (eg. Introduction to Research Infrastructures) assumes only a moderate level of experience with digital humanities, and none with research infrastructures. Units, videos and lectures are all kept to short, manageable chunks on topics that may be of general interest, but which are presented with an infrastructural twist
- 2. Intermediate Level (eg. Management Challenges in Research Infrastructures) approaches some of the major challenges in building and maintaining research infrastructures. These materials are somewhat more dense, and benefit from a more comprehensive grounding in digital humanities and the management of research projects.
- 3 Advanced Level (eg. Collaborations of Research Infrastructures) presents some of the exciting new research directions coming out of the PARTHENOS Cluster. These modules approach some of the theoretical issues that shape the design, delivery and indeed the success of research infrastructure developments, challenging us to think about how we develop and support humanities at scale in the interaction with technology.

#### Context for the Materials

The PARTHENOS Project is actually a cluster of projects, comprising 7 main initiatives,



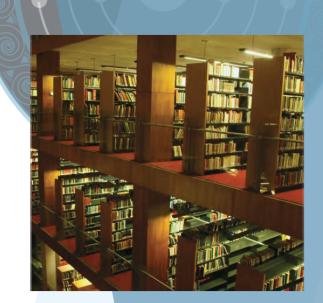
## PARTHENOS

Pooling Activities, Resources and Tools for Heritage E-research Networking, Optimization and Synergies

## Why Invest in Humanities Research Infrastructure?

Research infrastructures provide shared access to the resources, expertise and facilities needed to advance knowledge. Not every institution or indeed every country, can justify investing in the specialised knowledge, data, labs and equipment certain disciplines and communities require. By sharing these resources among many partners, a research infrastructure can facilitate access for many researchers.





## Do the Humanities Need Research Infrastructure?

Modern definitions recognise that all disciplines have infrastructural needs, for data, for specialist knowledge, for methodological support, for storage and processing power. As such, the arts and humanities need shared research infrastructure as much as any other discipline.



#### Fostering Interoperability

Shared access to federated data resources is a key element of many European research infrastructures. This is a particular challenge in the arts and humanities, where sources are held in national and local cultural heritage institutions, some of which may provide little or no remote access to, or visibility of, their collections. Research infrastructure must not only develop relationships with those many institutions, but also apply knowledge of data and metadata standards (to make different collections searchable, like-for-like) and of differences in intellectual property status, which may make research data usable for certain purposes, but not for others.

#### **Building Sustainability**

Many digital humanities projects have had limited value for later scholars. Research infrastructures can advise on and provide direct access to key building blocks for sustainability, such as persistant identifiers guaranteeing the discoverability of resources for the long term. They can also guarantee a level of scholarly authority, making it easier to recognise the provenance of a resource. Research infrastructures can also increase the visibility and impact of digital scholarship, as well as aligning research practices with the principles of Open Science, such as

## **Phase 2 Developments: Grow Current State**

## More!

- Detail
- Lectures/Lecturers
- Perspectives (CLARIN, E-RIHS)
- Topics
- Partnerships (ESU, LIBER, RITrain, DARIAH VCC2, DARIAH Teach)



## **Phase 2 Developments: Add New Modules**

- WP 4 (Standardization) WP7 will build on their informational comic, 'Standards Survival Kit' and the 'Standards Helpdesk'
- wP 3 (Common policies and implementation strategies): WP 7 will build upon the WP3 'Wizard' covering key strategic and policy drivers for RI development (careers, open science, funding)
- WP 5 (Interoperability and semantics) and WP 6
   (Services and Tools) have identified six categories of
   technical training needed to work with the PARTHENOS
   results (eg. CIDOC-CRM, Infrastructure Operation,
   Resource Registry, 3M and X3ML, D-Net and Resources
   Discovery Tools.) WP7 focus on capturing their internal
   training and extending its reach/reuse.



## Phase 2 Developments: Integrate Knowledge

- Mobility between and within RIs and its role in building knowledge and careers inside and outside of infrastructures (2017)
- Integrating infrastructural knowledge into formal HE curricula (AY 2017-2018 at KCL)
- Registry of training resources?



