

# Definitions of Research Infrastructure

1. “facilities, resources or services of a unique nature that have been identified by pan-European research communities to conduct top-level activities in all fields. This definition of Research Infrastructures, including the associated human resources, covers major equipment or sets of instruments, as well as knowledge-containing resources such as collections, archives and databases. Research Infrastructures may be “single-sited”, “distributed”, or “virtual” (the service being provided electronically). They often require structured information systems related to data management, enabling information and communication. These include technology-based infrastructures such as grid, computing, software and middleware.”

2. “Morphologically, digital infrastructures can be defined as shared, unbounded, heterogeneous, open, and evolving sociotechnical systems comprising an installed base of diverse information technology capabilities and their user, operations, and design communities”

3. “In its widest sense, infrastructure allows us as finite individuals to achieve beyond our individual capacity to know, to do, to see.”

4. Infrastructure gets 'below the level of the work,' "i.e. without specifying exactly how work is to be done or exactly how information is to be processed. Most systems that attempt to force conformity to a particular conception of a work process (e.g. Lotus Notes) have failed to achieve infrastructural status because they violate this principle. By contrast, email has become fully infrastructural because it can be used for virtually any work task."

5. *” Research infrastructures are complex agglomerations of knowledge, data, people, and services that bring together diverse resources for a wide user base and make these resources (re)usable and available for an appropriately long term in order to support research (either individual or collaborative) and share the results of that research.”*

6. “the term cyberinfrastructure is meant to denote the layer of information, expertise, standards, policies, tools, and services that are shared broadly across communities of inquiry but developed for specific scholarly purposes: cyberinfrastructure is something more specific than the network itself, but it is something more general than a tool or a resource developed for a particular project, a range of projects, or, even more broadly, for a particular discipline. So, for example, digital history collections and the collaborative environments in which to explore and analyze them from multiple disciplinary perspectives might be considered cyberinfrastructure, whereas fiber-optic cables and storage area networks or basic communication protocols would fall below the line for cyberinfrastructure”

7. “Infrastructures meditate. They are the structures ‘in between’ that allow things people and signs to travel across space by means of more or less standardised paths and more or less standard protocols for conversion or translation. Thinking of infrastructures as *mediating interfaces*, that is as points of interaction and translation on material, institutional and discursive levels allows us to get to the heart of the dynamics we seek to capture.”





Published in Information Systems Research,



US Policy Document, Our Cultural Commonwealth



Published in the International Journal of Humanities and Arts Computing



Published in Understanding Infrastructure: Dynamics, Tensions and Design (Library Science)



PARTHENOS Project internal report



EU Policy Document, the ESFRI Roadmap



Book: *Materializing Europe: Transnational Infrastructures and the Project of Europe*