

Long-term temporality and e-infrastructure development: Findings from literature Helena Karasti

I will begin the presentation by a brief personal history and research motivation with the topic of long-term temporality. My interest started in conjunction with an ethnographic study of information management embedded in the collaborative research setting of the US Long-Term Ecological Research (LTER) network in 2002, and has since grown to encompass also the large-scale e-infrastructure (a.k.a. cyberinfrastructure, e-science, e-research) development with which the international LTER networks have become engaged in recent years.

From a science philosophical point of view, we know that disciplines embrace certain temporal assumptions and associated theories, concepts and instruments that depend on the temporal horizons of their preferred object of inquiry. Therefore, it is likely that temporal mismatches exist between participating specializations in interdisciplinary endeavors, such as e-Infrastructure development for certain scientific areas. In fact, in a recent report (Edwards et al. 2009) temporal issues were identified as a base-line tension that complicate e-infrastructure development. According to my understanding, long-term temporality is particularly crucial because technology development has traditionally been occupied with short-term temporalities whereas in e-infrastructure development the inherent long-term in nature of infrastructures should be taken into account.

The majority of this presentation will sum up the findings and insights gained so far through analyses of key literature in a number of specializations that are pertinent to e-infrastructure development for LTER: long-term ecological research, information management, and infrastructure development. Time providing I will also explore relevant literatures of STS tradition (studies of large technological systems and infrastructures), digital curation (especially for scientific purposes), and information systems design (approaches with inklings about associated long-term aspects).