Sustainability beyond guidelines

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Abstract

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How our perception of research infrastructures shapes our understanding of sustainability? This paper addresses the question of the human factor or human capital when reflecting about the sustainability of research infrastructures. In the heroic endeavour to build pan-European research infrastructures one could gain the impression that attention goes primarily to the process of building them, and less to those which execute this process. If we observe the relevant discourses about infrastructures, that is the science policy discourse and science and technology studies reflection, we see that humans - people - indeed do figure in them. They appear in their roles as 'staff' (working in RIS) and 'users' (using the RIS), or as careers or knowledge of different types inherent to making the infrastructure. Our paper aims to contribute to the awareness raising process about the roles of actors in and around a research infrastructure and their function for sustainability.

We start from the results of two projects: CENDARI, a research infrastructure project which looked into its own sustainability; and Humanities at Scale (HaS) which devised a so-called reference or architecture model to organise and communicate about the achievements (contributions) made in an infrastructure and the different roles and functions of those involved in it. From the thorough analysis of CENDARI about sustainability we learn about the process character of sustainability and the key position people (as stakeholders, as co-creators, as users) have to ensure sustainability in a continuous and ongoing way. In a complementary way, the HaS reference model unfolds the complexity of processes in a distributed work environment, the different roles, skills and competences which are required to execute them, and delivers a systematics to describe them.

With evidence for the importance of human capital and knowledge capital for sustainability and toolsets to describe the required work processes, we arrive at the question how to sustain the people in order to sustain infrastructures.

We conclude the paper with reflections how the careers of those working in and with infrastructures can be fostered by means of formal education and training, and how their functions can be acknowledged by occupational classifications.

References

CENDARI Project, http://www.cendari.eu

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Christine L Borgman, Paul N. Edwards, Steven J. Jackson, Melissa K. Chalmers, et al.. "Knowledge Infrastructures: Intellectual Frameworks and Research Challenges" Deep Blue(2013) Available at: http://works.bepress.com/borgman/318/

DARIAH Reference Architecture, https://priddy.github.io/DARIAH-RA/service/

Humanities at Scale Project, http://has.dariah.eu/

RM-ODP: The ISO Reference Model for Open Distributed Processing, Antonio Vallecillohttp://ae.aim.nl/weblog/ISO%20TR9007/odpeng%5B1%5D.pdf Sustainable European Research Infrastructures - A call for action. COMMISSION STAFF WORKING DOCUMENT. Long-term sustainability of Research Infrastructures - SWD(2017) 323 final

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