

**Ana Horta (ICS-ULisboa), Matthias Gross (Helmholtz Centre for Environmental Research - UFZ e Universidade de Jena) | *Digital technologies in the transition to a sustainable energy system: knowledge-related challenges from everyday life***

Digital technologies have been considered a crucial feature in the transition to a sustainable energy system. Their increasing integration in appliances, services or energy grids is considered key to enhance energy efficiency through remote control and automation, as well as by allowing utilities to adjust to energy demand in real-time through smart meters. Information and communication technologies are also expected to enhance a more active role of consumers, including as “prosumers” of renewable energy. However, this transition poses many challenges, the need to engage individuals being one of them. Since the growing pervasiveness of these technologies raises questions regarding privacy and individual rights, and its possible consequences are difficult to foresee, increasing acceptance and adoption of digital technologies are uncertain. Moreover, although digital technologies may empower citizens, their complexity is likely to enlarge the divide between groups with the skills to use them and those who have not. Individuals’ knowledge is a critical issue, which has been considered even more important than access to technology. Research on the forms of knowledge that affect individuals’ dispositions to interact with information and communication technologies is therefore needed. In accordance with recent strands of research which emphasize the need to investigate forms of knowledge that go beyond traditional sociological standpoints, this chapter explores how individuals deal with these technologies in their everyday life and, in particular, how they deal with what they do not know, do not want to know, know how to do but cannot explain, as well as what their collective understandings are. By presenting several empirical examples of different forms of knowledge and non-knowledge of digital technologies, the chapter contributes to understand how interactions with these technologies take the forms they do in order to shed light on the challenges that may hinder the transition to a sustainable energy system.