

Ethical and social aspects of innovation in emerging technologies

Contribution to Panel Debate by B. Stahl

In my short opening statement to the panel, I plan to cover my understanding of responsible (research and) innovation and give a short overview of how this relates to ICT by highlighting some of the ethical issues that can be expected from the use of emerging information technologies.

The concept of RRI that I use is based on von Schomberg's idea that both process and product of research and innovation should be acceptable, desirable and sustainable (von Schomberg, 2011). I will then point to some projects where we have tried to embed these ideas in the project structure: e.g. www.humanbrainproject.eu; www.project-sherpa.eu; www.orbit-rri.org.

I will then briefly outline which ethical and social issues one can typically expect when working with emerging digital technologies. This shows that privacy and data protection, while of crucial importance, are by no means the only issues one should focus on. Key issues we have identified in the past (Stahl et al., 2017) include:

1. Conceptual issues and ethical theories
2. Impact on individuals
3. Social consequences
4. Uncertainty of outcomes
5. Perceptions of technology
6. Role of humans

I will close by drawing the narrative back to RRI and by asking how RRI could be sensitised to these issues.

References

- Stahl, B. C., Flick, C., & Timmermans, J. (2017). Ethics of Emerging Information and Communication Technologies-On the implementation of RRI. *Science and Public Policy*, 44(3), 369–381. <https://doi.org/10.1093/scipol/scw069>
- von Schomberg, R. (2011). *Towards Responsible Research and Innovation in the Information and Communication Technologies and Security Technologies Fields*.

[Letter to Publication Office of the European Union].

http://ec.europa.eu/research/science-society/document_library/pdf_06/mep-rapport-2011_en.pdf