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Topic allocation:general philosophy of technologyoontology and metaphysics of technology

Robotics futures: The analysis of technological potential

Keywords: anticipatory futures, emerging technologies, robotics, technological potential

This contribution addresses the topic of technological potential in philosophy of technology, while using robotics as an example of a technology whose future potential is strongly anticipated. A complementary aim is thereby to elaborate on methods that can be deployed to analyze technological potential in emerging technologies and engage with its narratives. In this context, it presents the author's work on technological potential in several interdisciplinary robotics projects, mainly in order to illustrate the arguments that are made regarding the points above.

Concerning the topic of technological potential, the contribution will first provide a concise introduction of the discussion on future potential by presenting several leading views and concepts that can be connected to the topic and relate those to the analysis of emerging technologies. Most of those views and concepts will be from philosophy of technology, but ideas from science and technology studies (STS) are also included. Important in this overview is the ambivalence between the importance of analyzing and debunking phantasmatic and utopian/dystopian notions of emerging technologies, versus stressing the importance of theorizing and engaging with future emergence in the critical study of technology.

Second, the presentation will propose different ways of analyzing and engaging with narratives around technological potential, in order to facilitate a discussion on the improvement of such analysis. This second point includes interdisciplinary perspectives that go beyond philosophy of technology, since it also considers (qualitative) empirical research methodologies. The main questions here is how technological potential has been analyzed by others, while discussing the different particularities of those methods and approaches.

Finally, as indicated, the third element in the presentation serves a supportive role by providing examples from the field of robotics. Robotics can generally be considered as a good example here, since robotic technologies are often anticipated to have widespread implications in the near future. Speculations and expectations concerning robotics' future potential are for that reason common in many different layers of society. The presentation's arguments are therefore accompanied by examples from the author's own experiences while doing research on robotics as an emerging technology.