
Synthetic biology as a topic for the social sciences and humanities

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Abstract

Social scientists have been part of UK synthetic biology from its early stages. It was in 2008 that I was first invited to join a synthetic biology network. Since then I have been involved in a range of different activities, including interdisciplinary research projects, policy initiatives, and collaborations with artists and designers. In this presentation I discuss some of these experiences, and reflect on how they fit into the broader synthetic biology landscape, in the UK and beyond. I describe my approach to exploring the social dimensions of the field, which involves taking engineering seriously, examining the metaphors that are used, and asking what it means to govern an uncertain future. I also discuss the notion of responsible research and innovation, which is rising in prominence in European research programmes. I then focus on the technical, social and conceptual issues that I find particularly salient in the synthetic yeast project, including its design principles, its internationally collaborative nature, and the attention it draws to the spatiality and temporality of living things. I end by reflecting on the role the social sciences and humanities could play in synthetic biology in the future.

Keywords: interdisciplinarity, social dimensions, metaphors, responsible research and innovation, synthetic yeast genome, collaboration

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