

Steve Fuller: Preparing for Life in Humanity 2.0.
Palgrave Macmillan, 2013. 117 pages.

This book presents an attentive elaboration of some philosophical, politico-economic, anthropological, ethical and educational foundations leading us to life in the society called Humanity 2.0 in which Homo sapiens as the biological species will gradually lose its salience as the default setting for organising the human condition. In Steve Fuller's book, life in Humanity 2.0 does not appear as distant science fiction but in the form of a realistic subject for critical analysis. Humanity 2.0 is society constituted through social and scientific-technological processes which could be realised in the near future or are already present today in embryonic form.

In intellectually challenging reading, the author first offers us profound meta-theoretical insights into the issue of trans-humanism. A considerable part of the book is dedicated to explaining the distinction between Humanity 1 and Humanity 2 in the sense of politico-economic conditions which are destabilising the traditional concept of human dignity. In addition to adumbrating politico-economic conditions, Fuller gives a detailed explanation of two possible anthropological ways of coping. He elaborates the paradigms of 'post-humanism', and 'trans-humanism'. If, in post-humanism human beings are seen as just one of many biological species embedded in spontaneous evolutionary processes, then in trans-humanism human beings are interpreted as a transient species which is being subjected to a radical extension beyond its natural capacities. The main idea behind trans-humanism is that strategic

interventions of the newly emerging technologies into both our reproductive capacity and nature's selection pressures would enable us to direct the course of the evolution of human beings. The book deals with the ethical basis for the Humanity 2 way of life.

Fuller's recent thought, not only in the book *Preparing for Life in Humanity 2.0* but also in his previous book *Humanity 2.0* (Fuller, 2002), offers a very innovative approach to analysis of various aspects of possible life in a trans-humanist society. Debates about trans-humanism and human enhancement have in more recent times become one of the most attractive and exciting topics for analysts of science, technology, and society (STS). An abundance of works from different disciplinary perspectives inside STS has extensively elaborated the feasibility of redesigning the human condition on the basis of human enhancement technologies. Notwithstanding this, we rarely encounter such ambitious and ground-breaking insights into the various aspects of trans-humanism as we do with Fuller's approach. And his books are recommended reading for another reason: they highlight the quite well-known truth (unfortunately not often acceptable) that, to arrive at reliable insights about the future, we need to re-discover and re-evaluate our present and past. Namely, instead of speculating about the shift to the trans-humanism simply in the context of far-flung future visions and hype, Fuller tries to re-think the whole spectrum of (past and recent) factors which are directing us to

Humanity 2.0, i.e. a society in which human and non-human elements should not only be combined but also be allowed, even encouraged to develop into novel unities (hybrids such as cyborgs etc.)

After reading Fuller's books, we can understand why by dealing with the complex and mainly unforeseen processes of the future transgression of the category 'human beings' on a society-wide scale, it is no longer possible to stake everything solely on traditional (positivist) explanations of modern scientific-technological progress. Mostly based on Max Weber's idea of the 'rationalisation' and 'disenchantment' of human knowledge, they are inadequate in the face of the new challenges. In this view, all kinds of onto-theological questions are (or will be) entirely eliminated from the realm of scientific thinking. Fuller breaks off from such either/or explanations. He argues in his book that there are more complex and proliferated interlinks between different kinds of epistemologies (for example between the religious and the scientific realms) than seem likely or possible at first sight. Of course, the basic epistemological questions of theology cannot be put in the place of offering supreme moral guidance to science, (those times have long gone), nevertheless, some metaphysical issues are still attractive for modern scientific thinking. In support of this claim, Fuller suggests that the recent increasing migration of scientific inquiry to the virtual reality of computer simulations adds to the sense that perhaps our capacity for intellectual intuition needs to be subjected to some serious philosophical re-thinking. In fact, intellectual intuition has been connected through the whole occidental theoretical tradition with the human capability for venturing beyond what we truly know. Even the English philosopher Francis Bacon, one of the best known proponents of modern empirical science, did not apply the Latin

term *plus ultra* ('more beyond') to the empirically constrained scientific method for examining nature, but to intellectual intuition.

In highlighting why, for human beings one possible future scenario is to transgress in Humanity 2.0, Fuller attributes the same importance to epistemological and moral discourses. In this sense, he offers a new explanation of the concept of »moral entrepreneurship« he introduced in his previous book *Humanity 2.0*. The proponents of moral entrepreneurship are future-oriented innovators who are paving the way towards the unknown territory of trans-humanism. Some people may have serious hesitations regarding the concept of moral entrepreneurship. Notwithstanding this, there is no doubt that in the recently emergent liberal and individualistically oriented societies, in which the progress towards newly emerging technologies is faster than any ethical understanding of their roles, the arguments for the actuality of phenomenon of moral entrepreneurship sound convincing. The crucial message of these arguments is that future-oriented innovators should be free to use different enhancement instruments to transform their cognitive and physical capabilities without any limits. However, the justification of such libertarian views in terms of individual freedom to decide and pursue the transgression of human dignity (if it is at all possible to use such an anachronistic concept as the term human dignity) does not mean that the principle of social responsibility in Fuller's book is absent. Indeed, in his elaboration of the politico-economic conditions for the Humanity 2.0 way of life, he accepts all solutions which contribute to the efficiency of modern welfare policies.

From the point of view of recent STS debates about possible changes in future societies arising from the tremendous

progress of new emerging technologies, it is interesting that the book assigns quite a high level of relevance to the global power of the R&D policy agenda called 'converging technologies.' The basic idea underlying this policy agenda is to integrate with various kinds of policy instruments, the newly emerging techno-sciences such as nanotechnology, biotechnology, information and communication technology and cognitive sciences to transform the very constitution of the human species. It is clear that the policy programme called converging technologies has already had some practical impact on policy actors (all other stakeholders) in the United States as well as in Europe, especially after the appearance of the NSF report in 2002 (Roco & Bainbridge, 2002). Despite this, attributing global power to this policy action seems too early and too optimistic. Unfortunately, the global technological arena is still full of conflicts among different kinds of techno-politics. Not only at the global but also at the national level these techno-political conflicts are unable to create more concerted actions at the global level to confront the precarious issues of emerging life in Humanity 2.0. Here, a new dimension for solving these problems could bring the more democratic participation of (world) scientific citizenship in the governance of the converging technologies.

To conclude, Fuller's book explores one of the most exciting topics of recent times, i.e. how to prepare for life in a trans-humanist society. This topic is today of great interest to an expert audience both inside and outside the field of STS. Moreover, many readers who are neither experts in the field of trans-humanism nor an STS scholar in the broader sense but who enjoy the excitement of questions like where we as a biological species come from and where we are going with the help of the great achievements of modern scientific-technological progress, will also be rewarded by spending some time with this book.

References

Fuller, S. (2002) *Humanity 2.0. What it Means to be Human Past, Present and Future* (New York and Hampshire: Palgrave Macmillan).

Roco, M.C. & W.S. Bainbridge (eds) (2002) *Converging Technologies for Improving Human Performance: Nanotechnology, Biotechnology, Information Technology, and Cognitive Science* (Arlington VA: NSF/DOC).

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