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“Christian Kehr, Peter Schüßler and Marc-Denis Weitze (eds.) *Neue Technologien in der Gesellschaft. Akteure, Erwartungen, Kontroversen und Konjunkturen*”

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today we talk about techno-ethical harmony with bioethics).

Even though early signs of an interest in techno-ethics have come from Wiener's thoughts, at the end of the sixties (about limits and values in the emerging Computer Science), it can be said that this issue was finally opened in Moor's article, "What is Computer Ethics?" (1987), in which, prophetically, the author pointed out that the main ethical problems would come during the machine assimilation as part of humanity, and that this stage would be necessarily followed by a long period of technological development. Computer malleability was the main reason of its ability to change processes in which it was used. Before discussing some interesting cases (e.g. Simputer, Miss Bimbo) Bennato notes that an ethical perspective becomes crucial for social sciences, which are facing epochal changes in which the role of technology is undeniable.

This work by Davide Bennato looks like having two different sides: on the one hand a historical review of technological, social, scientific events; on the other hand a critical approach to the main theories concerning social media and Web 2.0, which, without a precise re-read of these labels, are now at risk of becoming buzz words. This ambivalence is an essential quality of this well organized book with a rich bibliography and lists of websites.

Christian Kehr, Peter Schübler and
Marc-Denis Weitze (eds.)

**Neue Technologien in der
Gesellschaft. Akteure,
Erwartungen, Kontroversen und
Konjunkturen**

*(New Technologies in Society – Actors,
Prospects, Controversies and
Conjunctures)*

2011, Transcript Verlag, 363 pp.

Mareike Glöss
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The here presented edited collection seeks to give an overview over new technologies in society, analyzing the multitude of actors and factors that are entangled with it.

The theoretical foundation is hereby building on social construction of technology (Bijker et. Al., 1987) as the editors emphasize in their introducing chapter. However, the approach this collection is taking analyzes technology as one of factors besides others and thereby rather shaped by the social than constructed (MacKenzie and Wajcman, 1999).

The work originated from a research project that was located at the German Museum in Munich. The main idea was to bring together scholars from social, philosophical, historical fields and discuss the different dimensions of new technologies along concrete case studies. At the same time the collection also includes contributions from actors of the discussed new technologies – natural scientists and

engineers – in order to “understand their motives, experiences and interests” (p. 17).

The idea of conducting a research project about the various social dimensions of new technologies that is not only involving scholars from social sciences but also representatives from those fields that are actually developing and working with these new technologies is at the same time appealing as well as challenging. The edited collection approaches new technologies by bringing together scholars from various disciplines in order to account for the heterogeneity of this field – and is to some extent successful in doing so.

The book is divided into five parts. While the first part is dealing with the concept of new technologies, the following parts are discussing different kind of technologies: Energy, information and communication technology (ICT), bio and nanotechnology.

The first part of the book offers different approaches for the conceptualizing of new technologies. Kornwachs (chapter 2) introduces this part with a discussion about the concept of “new”. Thereby the very relevant question is discussed in how far new technologies can be really considered as new and how the perception of new technologies is changing over time. Radkau (chapter 3) continues this discussion but takes a more historical focus. The term ‘new technologies’ as a highly relative term has been discussed before and the historical focus has proven to be valuable for evaluating the percep-

tion of different technologies in society (Marvin, 1988). It is through this discussion that is taken up throughout the book – amongst other by Högselius (chapter 7), Heymann (chapter 10) and Barben (chapter 13) – that the collection is able to connect the discussed new technologies with their perception in society.

The second part deals with different aspects of energy, whereas a certain focus lies on how to meet the increased demand for energy in modern societies. After an introduction (Dittmann, chapter 6) that discusses the availability of energy as a central concept, Högselius (chapter 7) as well as Günter and Milch (chapter 8) are approaching nuclear energy from different directions. While both chapters ask the same question – if nuclear energy is the energy of the future – both come to different conclusions. Here the interdisciplinary approach – one contribution giving a historical perspective, the other coming from the Max-Planck institute for plasma physics – shows its potential by creating an insightful discourse between a more techno-deterministic and a more social-constructivist perspective.

Unfortunately this discourse of the first two chapters is not continued in part three. While Mainzer (chapter 12) gives a good overview over the development towards today’s information and communication technologies, such as robots or smart grids, the following contributions present a rather unreflected descrip-

tion of some of these technologies. Herzog describes ubiquitous computing and the components it is built of but does not manage to reflect on the change of social perception of computing.

And even though Aumann (chapter 15) shows the complex relationship between public and science in regards to the perception of cybernetics and bionics, the whole part does not manage to reach a higher analytical level.

Part four – in contrast to the foregoing part – does provide a much more thorough image. Thereby the authors manage to work out public controversies around ethical considerations (Gill, chapter 16), economical significance (Müller-Röber and Weitze, chapter 17) and governmental funding policy (Wieland, chapter 18).

Similarly strong as part four is the fifth part that is dealing with nano-technology. Hereby the focus lays not so much on a mere description of new technologies but instead accomplishes to explore a variety of interesting aspects, such as Schummer's (chapter 20) discussion of nano-technology as a programmatic idea or Blümel's (chapter 21) analysis of Germany's research funding policies.

At the first glance the book presents a very broad perspective on new technologies from the point-of-view of a multitude of different disciplines. On a closer look it shows that the book has a strong focus on science and research policies in particular from a historical perspec-

tive and with a very strong emphasis on the German science landscape.

The interdisciplinary approach that is presented here shows its strength through its diversity. The chosen articles present a very wide range of different disciplines, but are very much focused on setting new technologies into their historical context. This creates a discursive character that is over wide parts very insightful.

On the other hand this interdisciplinary approach shows its weakness when it comes to embedding all contributions into a theoretical framework – in particular in relating it to the chosen socio-constructivist approach. Some of the chapters do not overcome their rather technological deterministic point-of-view. This is demonstrated for instance by the repeated uncritical reference to Moore's law (exemplified by MacKenzie and Wacjman 1999) and particularly in those contributions that are coming from the applied science. Setting those contributions into a stronger theoretical context could have enhanced this collection. However, the reader can compensate this deficit easily by keeping the critical mindset that is presented in some of the articles in particular in the first part. Then this collection will be very valuable to those readers that are interested in the contemporary German scientific landscape in the field of new technologies.

References

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Marina Maestrutti

**Imaginaires des nanotechnologies.
Mythes et fictions de l'infiniment
petit**

*(Nanotechnology Imaginaries. Myths and
Fictions of the Infinitely Small)*

2012, Vuibert, 272 pp.

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An English translation of the title of Marina Maestrutti's book might be "Nanotechnology Imaginaries". The term "imaginary" (*imaginaire* in the original French) is central to understand the analysis of the "myths and fictions of the infinite small" (the subtitle of the book) that Maestrutti proposes. It allows her to identify pervasive tensions in technological discourses, and it suggests a path for the political analysis of scientific development. I will discuss these two points successively.

Marina Maestrutti bases her analysis on the description of nanotechnology as a field where the future is regularly referred to. An overlying discourse made of "industrial revolutions" is part and parcel of the development of the field, associated with elements coming directly from science-fiction. The book analyzes in details what many nanotechnology scholars have been concerned with in the past few years, namely the futuristic accounts that accompany the development of nanotechnology. Marina Maestrutti describes some of these accounts, including those grounded on self-replicating nano-machines, and the perspectives of radical social transformations based on human enhancement. She discusses them along three lines, examined successively in the three parts of the book: the major narratives that were produced with the development of nanotechnology, the visions of the future of nanotechnology, and the imaginaries of body transformations. Throughout the book, the underlying philosophical themes of the control over nature, the making of utopia and counter-utopia, and the transformation of the human body are studied in details. The discourses related to nanotechnology then appear as re-activations of long-term issues in philosophical thinking. While analyzing these long-term issues, Marina Maestrutti elegantly describes the roots of argumentation regarding nanotechnology's applications, by pointing to a series of dichotomies that pertain to the constructing of meaning of