Preface

The topic of this special issue of *metaphorik.de* is metaphors in science and technology. The articles are contributions to a panel which was part of the international conference "Technisierung/Ästhetisierung – Technological and Aesthetic (Trans)Formations of Society", held at the Darmstadt Technical University during October 12 to 14 in 2005. Within an interdisciplinary framework, the panel on metaphors in science and technology asked for the role of metaphors in scientific and technological discourse: the metaphoric nature of scientific theories and technological models and the shifts in their conceptualization. The contributions presented here come from different disciplines – linguistics, history of science, and psychology – cover a wide range of perspectives on this matter.

Juliana Goschler describes in her article *Metaphors in Cognitive and Neurosciences* metaphors that are used to explain the structure and the functions of the human brain. She argues that three main types of metaphors can be found in popular scientific texts on the brain: spatialization, personification, and technological metaphors. Every type of metaphor is closely connected to certain problems in scientific theories, which is shown for the problem of memory and "space", the problem of free will, and the discussion about the computer metaphor of the brain. Goschler's conclusion is that metaphors are not just a matter of language, but can cause problems (or improvements) in science.

Jörn Hurtienne and Lucienne Blessing focus on a very practical question: How are computer users' ideas about the structure of hard- and software influenced by metaphors used in Interaction Design? Using Johnson's (1987) theory on image schemas and their metaphorical extensions, their article on *Metaphors as Tools for Intuitive Interaction with Technology* shows how user interface design might benefit from a design coherent with basic image schemata. An experimental approach to test the validity of the image schema and conceptual metaphor theories in user interface design is presented with an investigation of the UP-DOWN image schema.

Ernesto Suarez Toste from the Universidad de Castilla-La Mancha explores metaphors used in wine advertisements. *The Dandruff of Sherry: Metaphor Inside the Wine Cellar* explores how a great number of very picturesque metaphors help to conceptualize and to speak about wines as something more concrete. As Toste concludes from his analysis of a text corpus consisting of 12,000 tasting notes written by wine-critics, winespeak relies on different kinds of metaphors, anthropomorphic metaphors being a dominant kind of mapping in this domain.

Aristotle Tympas and Konstantina Dalouka explain in a diachronic perspective how certain technological metaphors and analogies guided technological development. In their article *Metaphorical Uses of an Electric Power Network: Ear-*

ly Computations of Atomic Particles and Nuclear Reactors, they attempt to elaborate on a now almost forgotten artefact, the "network analyzer", and its use in computing atomic particles and nuclear reactions, based on the metaphoric consideration of both as analogous to an electric power network.

The presentations given at the conference led immediately to great discussions and they were followed by a memorable evening with beer and wine and more metaphor talk in the Ratskeller in Darmstadt, where plans for further co-operations were developed. Therefore, this issue of *metaphorik.de* is not only the result of the encounter of metaphor researchers from very different disciplines, but also a starting point for future collaborations. The reviews in this issue also reflect the theoretical and empirical complexity of the current scientific discourse on metaphor.

We would like to thank the DFG and the post-graduate college "Technology and Society" for financing and organizing the conference, Prof. Bruno Arich-Gerz for chairing the sessions, and of course all contributors and authors who presented their work in the conference and participated directly or indirectly with their oral or written contributions in creating this special issue. It shows that the research on metaphors and metaphoric processes enables the discussion of political and social as well as scientific and technological matters beyond the boundaries of humanities and science.

Bonn, Summer 2007

Juliana Goschler

Hildegard Clarenz-Löhnert
Martin Döring
Klaus Gabriel
Katrin Mutz
Dietmar Osthus
Claudia Polzin-Haumann
Nikola Roßbach
Judith Visser