

Contents

Part I Basics/Background

- Towards Another Scientific Revolution** 3
Sönke Bartling and Sascha Friesike
- Open Science: One Term, Five Schools of Thought** 17
Benedikt Fecher and Sascha Friesike
- Excellence by Nonsense: The Competition for Publications
in Modern Science** 49
Mathias Binswanger
- Science Caught Flat-Footed: How Academia Struggles with Open
Science Communication** 73
Alexander Gerber
- Open Science and the Three Cultures: Expanding Open Science
to all Domains of Knowledge Creation** 81
Michelle Sidler

Part II Tools

- (Micro)Blogging Science? Notes on Potentials and Constraints
of New Forms of Scholarly Communication** 89
Cornelius Puschmann
- Academia Goes Facebook? The Potential of Social Network
Sites in the Scholarly Realm** 107
Michael Nentwich and René König
- Reference Management** 125
Martin Fenner, Kaja Scheliga and Sönke Bartling

Open Access: A State of the Art	139
Dagmar Sitek and Roland Bertelmann	
Novel Scholarly Journal Concepts	155
Peter Binfield	
The Public Knowledge Project: Open Source Tools for Open Access to Scholarly Communication	165
James MacGregor, Kevin Stranack and John Willinsky	
Part III Vision	
Altmetrics and Other Novel Measures for Scientific Impact	179
Martin Fenner	
Dynamic Publication Formats and Collaborative Authoring	191
Lambert Heller, Ronald The and Sönke Bartling	
Open Research Data: From Vision to Practice	213
Heinz Pampel and Sünje Dallmeier-Tiessen	
Intellectual Property and Computational Science	225
Victoria Stodden	
Research Funding in Open Science	237
Jörg Einfeld-Reschke, Ulrich Herb and Karsten Wenzlaff	
Open Innovation and Crowdsourcing in the Sciences	255
Thomas Schildhauer and Hilger Voss	
The Social Factor of Open Science	271
Tobias Fries	
Part IV Cases, Recipes and How-Tos	
Creative Commons Licences	287
Sascha Friesike	
Organizing Collaboration on Scientific Publications: From Email Lists to Cloud Services	289
Sönke Bartling	

Unique Identifiers for Researchers 293
Martin Fenner and Laure Haak

Challenges of Open Data in Medical Research 297
Ralf Floca

On the Sociology of Science 2.0 309
Vladimir B. Teif

**How This Book was Created Using Collaborative Authoring
and Cloud Tools** 313
Sönke Bartling

History II.O 317
Luka Orešković

Making Data Citeable: DataCite 327
Jan Brase

About the Authors. 331