palgrave pivot

Media Futures

Theory and Aesthetics

Christoph Ernst
Jens Schröter

palgrave
macmillan

Media Futures

Christoph Ernst • Jens Schröter

Media Futures

Theory and Aesthetics

palgrave
macmillan

Christoph Ernst
Universität Bonn
Bonn, Germany

Jens Schröter
Universität Bonn
Bonn, Germany

ISBN 978-3-030-80487-9 ISBN 978-3-030-80488-6 (eBook)
https://doi.org/10.1007/978-3-030-80488-6

© The Author(s), under exclusive licence to Springer Nature Switzerland AG 2021
This work is subject to copyright. All rights are solely and exclusively licensed by the Publisher, whether the whole or part of the material is concerned, specifically the rights of reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.
The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.
The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, expressed or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Cover pattern © John Rawsterne/ patternhead.com

This Palgrave Macmillan imprint is published by the registered company Springer Nature Switzerland AG.
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

Acknowledgments

The present book is a revised and translated version of the volume "Zukünftige Medien. Eine Einführung," published by Springer VS in 2020. The book was realized as part of a project funded by the Deutsche Forschungsgemeinschaft (DFG): "Van Gogh TV: Erschliessung, Multimedia-Dokumentation und Analyse ihres Nachlasses" (directors: Prof. Dr. Jens Schröter of the Rheinische Friedrich-Wilhelms-Universität Bonn and Prof. Anja Stöffler of the Hochschule Mainz, funding period: 2018–2021). We thank Steven Lindberg for the excellent translation. Daniela Adscheid, Tilman Baumgärtel, Leila Brehme, Johannes Hardt, Rainer Hörmann, Karoline Kozlowski, Jule Wegen, and Christian Wild von Hohenborn gave us valuable suggestions and provided assistance with the preparation of the manuscript. Anja Löbert and the team of Textworks helped with the corrections. We are also grateful to Max Stossel for granting permission to use Fig. 4.2 "Max Stossel & Sander van Dijk—Words That Move." All citations from German sources have been translated by the authors and the translator.

Contents

1 Introduction 1
References 5

2 Media Change as a Cultural Phenomenon 7
2.1 Future Media: Five Theses 7
2.2 Media Change as a Solution to a Problem 12
2.3 The Desire for "New Media" in the Early 1990s 14
2.4 Piazza virtuale*: Interactive Television as a New Medium* 17
References 24

3 Imagination and Future Media 29
3.1 Imagination and the Forms of the Imaginary 29
3.2 Concepts for Imagining Future Media 35
3.3 Disseminating New Media as Future Media 43
3.4 "Premediation": Future Media as Media of the Future 49
References 62

4 Futures of Digital Media 75
4.1 Interactive Television; or, Was Piazza virtuale *a Social Medium?* 75
4.2 Ubiquitous Computing: Omnipresent Computers as Media of "Embodied Virtuality" 80
4.3 The "Minority Report" *Paradigm: Holographic Interfaces as Diegetic Objects* 86

4.4 Cixin Liu and the Three-Body Problem*: Quantum Computers as Postdigital Media?* 91
References 98

5 Future Media: Radical Imagination and "Immutable Futures" 103
References 108

Index 111

About the Authors

Christoph Ernst is an assistant professor at the Department of Media Studies of the University of Bonn. Main research interests: diagrammatic reasoning and media aesthetics of information visualization; theory of tacit knowledge and digital media, especially interface theory and artificial intelligence; media theory and media philosophy, especially media and imagination. Selected publications: Diagrammatik-Reader. Grundlegende Texte aus Theorie und Geschichte (ed. with Birgit Schneider & Jan Wöpking), Berlin: De Gruyter 2016, Diagramme zwischen Metapher und Explikation—Studien zur Medien- und Filmästhetik der Diagrammatik, Bielefeld: transcript 2021. Further information: www.christoph-ernst.com

Jens Schröter holds the chair of media studies at the University of Bonn, Department of Media Studies. Director (together with Anja Stöffler, Mainz) of the DFG research project "Van Gogh TV. Critical Edition, Multimedia-Documentation and Analysis of their Estate" (three years) since April 2018. Speaker of the research project (VW Foundation; together with Prof. Dr. Gabriele Gramelsberger; Dr. Stefan Meretz; Dr. Hanno Pahl, and Dr. Manuel Scholz-Wäckerle) "Society after Money—A Simulation" (four years) since 10/2018. Director of the VW Planning Grant "How is Artificial Intelligence Changing Science?" (Start: 1.5.2020, one year, preparation of main grant); summer 2017: senior fellowship IFK Vienna, Austria. Winter 2018: senior fellowship IKKM Weimar. Summer 2020: fellowship, DFG special research area 1015 "Muße", Freiburg. Winter 2021/22: fellowship Center for Advanced Internet Studies,

Bochum. Recent publications: Medien und Ökonomie, Wiesbaden: Springer 2019. Visit www.medienkulturwissenschaft-bonn.de/www.theorie-der-medien.de/www.fanhsiu-kadesch.de

List of Figures

Fig. 2.1	The *Piazza virtuale* "marketplace"	19
Fig. 2.2	Diagram of the ways to access *Piazza virtuale*	19
Fig. 2.3	The studio setup of *Piazza virtuale*	21
Fig. 3.1	The radical imagination, according to Castoriadis, drawn by the authors	33
Fig. 3.2	Forms of the imaginary in Castoriadis, drawn by the authors	34
Fig. 3.3	The relationship between utopia and ideology according to Flichy (2007a, 10), reconstructed by the authors	45
Fig. 3.4	Trends in the evolution of the computer according to Weiser and Brown (1997, 76), reconstructed and slightly modified by the authors	53
Fig. 4.1	Future gesture-based media in Weiser (1991), fair use, Scientific American was asked, but said they do not own the rights. Weiser is dead	82
Fig. 4.2	An imaginary augmented reality smartphone in *This Panda Is Dancing* (2016). Image credits: "Max Stossel & Sander van Dijk—Words That Move."	91

Check for updates

CHAPTER 1

Introduction

Abstract The introduction gives an overview of the problem and the structure of the book.

Keywords Introduction • Structure • Content • Book

Imagination is more important than knowledge.
Knowledge is limited.
Imagination encircles the world.
—Einstein (1929, 117)

Everything we know about the future is formed by our imagination. The reason for this is simple. The information we have about the future and the control we have over the future is limited (Rescher 1998, 3). When we want to know something about the future, we have to make something absent present. To make the inexistent exist: the imagination does just that. The imagination makes it possible for us to reach beyond a given state and picture things that are (still) absent or inexistent.

The future is real in the sense that it does not *not* exist but rather not *yet* (Rescher 1998, 71). What we know about future things and developments is by no means always wrong. In many fields, we can harbor justified expectations that the future will take shape at least in a way similar to how

© The Author(s), under exclusive license to Springer Nature Switzerland AG 2021

C. Ernst, J. Schröter, *Media Futures*,
https://doi.org/10.1007/978-3-030-80488-6_1

we imagine it. But history also teaches us that the future holds the possibility of a sometimes limited, sometimes drastic "otherness" (Castoriadis 1987, 190). The future always holds unforeseen events. It changes existing relationships and surprises us with the "new." All knowledge about the future is thus also knowledge about this uncertainty.

In light of these assumptions, inquiry into "media futures" may sound like unfounded speculation. Who can predict what future media will be? In contrast to other aspects of the future that we can know with somewhat greater certainty—for example, the fairly certain course of stars—developments in the area of media technologies are characterized by a much greater degree of uncertainty. Yet this unpredictability represents an opportunity. For even if one cannot say with a great deal of certainty what form future media will take or which media will dominate in the future, it is nevertheless possible to show *how future media are imagined*. This imagination of future media is the subject of the present book.

Speaking of "future media" means, for us, speaking of the *processes of the imagination* that are undertaken—setting out from a present—in relation to said future media. This present need not be our present. The historical look back at "past futures" provides us with important insights: just as it is helpful to ask how we imagine future media today, it is important to ask how future media were imagined in the past.

The internet is full of amusing examples of wrong predictions.[1] The telephone was seen as a superfluous plaything. Television was considered a technological impossibility or too boring for viewers. Some thought that the computer could never weigh less than a ton and a half, or that no more than 5000 computers would ever be sold. Moreover, it would be absurd to have such devices at home. No one would wear them on their body, either. It was said of the internet that it would collapse and disappear. And competitors said of the iPhone that no one should expect it to be a market success.[2]

From today's perspective, we can smirk at these examples. It should also be recognized, however, that under other circumstances these predictions could have turned out to be correct. Even completely misguided predictions can give us valuable insights into the expectations of their era. Not least, these wrong predictions reveal the hurdles to hopes for change: the persistence and constancy of relations that do not change or disappear despite prognoses to the contrary are often underestimated in discourses about the future.

The philosopher Nicholas Rescher therefore reminds us how difficult it is to predict *specific* events (not general trends) on the basis of *social* processes (Rescher 1998, 63, 90, 2012, 151–2). According to Rescher, there is an "epistemic gap" between the information available in a historical situation for making a prediction and the actual circumstances that lead to a prediction being warranted or unwarranted (Rescher 1998, 58). It is only in rare cases that we have sufficient information to make correct predictions. In the present society, it is fairly certain that there will be scientific discoveries in the future. Which ones they will be, by contrast, can hardly be predicted (Rescher 1998, 149, 2009, 2012, 150). For that reason, Rescher warns us that whenever we look back at history, we need to take seriously the inscrutability of the future for people at the time.

This epistemic gap is filled by an "amalgamation" of hopes,[3] fears, visions, and fantasies that form around new technology.[4] This amalgamation is incomparably denser than the small detail of an accurate or misguided prediction. In what follows, we will call it the "imaginary" of a given era. In the form of specific ideas—so-called imaginaries—about the future that are common in a culture and in a society, the imaginary forms a framework for our concepts of the technological future. This framework is in effect when an "image" of a future media technology is created.

When one speaks of "imagination," the "imaginary, and of "imaginaries," it is necessary to dispel from the outset a common misunderstanding. In the reading proposed here, these three terms refer not to a world of appearance, fantasy, illusion, and deception that should be replaced by "true" knowledge. Rather, it is about the assumption that processes of imagination are constitutive of and productive for human knowledge. In connection to arguments of cultural and social theory, we pursue the idea that processes of imagination also occur in large collectives. Imagination, the imaginary, and imaginaries have an essential role in determining what collectives are prepared to or indeed able to imagine at all at a given historical point in time.

That would bring us back to the context of insufficient knowledge about the future and the imagination. For if the imagination steps in as a framework to give us an understanding of the future, then it should not be overlooked that at that moment it also *influences our actions*. The paradox is obvious: at the very moment one believes one knows with certainty something about the future, one behaves in a way that itself has effects on said future. Lurking in the background is the even more profound problem of a tradeoff between the certainty and the originality of a prediction.