
Education in the Age of the Screen

This edited volume brings together experts from across the field of education to explore how traditional pedagogic and didactic forms and processes are changing, or even disappearing, as a result of new technologies being used for education and learning.

Considering the use, opportunities and limitations of technologies including interactive whiteboards, tablets, smart phones, search engines and social media platforms, chapters draw on primary and secondary research to illustrate the wide-reaching and often salient changes that new digital technologies are introducing into educational environments and learning practices around the world. Neither claiming that traditional forms of learning must be replaced, nor calling for a restoration of the school, *Education in the Age of the Screen* offers a nuanced exploration of the implications of digitization for education. Taking a broad view on education as a social and cultural phenomenon, the volume focuses on three major dimensions: the wider conditions against the background of which we educate and are educated today, detailed examples of aesthetic practices and educational initiatives in the current media culture, and concrete answers to the challenges that come our way.

A comprehensive and timely consideration of the state of education in the digital age, this will be of interest to researchers, academics and post-graduate students in the fields of education and pedagogy, media and cultural studies, as well as teacher educators and trainee teachers.

Nancy Vansieleghem is coordinator of the educational master in fine arts at LUCA School of Arts, Belgium, and of the research group Art, Practices and Education.

Joris Vlieghe is Assistant Professor in Philosophy and Theory of Education at the University of Leuven, Belgium.

Manuel Zahn is Professor for Aesthetic Education with a focus on contemporary media culture at the University of Cologne, Germany.

Theorizing Education

Theorizing Education brings together innovative work from a wide range of contexts and traditions which explicitly focuses on the roles of theory in educational research and educational practice. The series includes contextual and socio-historical analyses of existing traditions of theory and theorizing, exemplary use of theory, and empirical work where theory has been used in innovative ways. The distinctive focus for the series is the engagement with educational questions, articulating what explicitly educational function the work of particular forms of theorizing supports.

Series Editors

Gert Biesta, Brunel University, UK

Stefano Oliverio, University of Naples "Federico II", Italy

Inoperative Learning

A Radical Rewriting of Educational Potentialities

Tyson E. Lewis

Religious Education and the Public Sphere

Patricia Hannam

Art as Unlearning

Towards a Mannerist Pedagogy

John Baldacchino

Education in the Age of the Screen

Possibilities and Transformations in Technology

Edited by Nancy Vansieleghem, Joris Vlieghe and Manuel Zahn

For more information about this series, please visit: www.routledge.com/Theorizing-Education/book-series/THEOED

Education in the Age of the Screen

Possibilities and Transformations in
Technology

Edited by
Nancy Vansieleghem, Joris Vlieghe and
Manuel Zahn

First published 2019
by Routledge
2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

and by Routledge
52 Vanderbilt Avenue, New York, NY 10017

Routledge is an imprint of the Taylor & Francis Group, an informa business

© 2019 selection and editorial matter, Nancy Vansieleghem, Joris Vlieghe and Manuel Zahn; individual chapters, the contributors

The right of Nancy Vansieleghem, Joris Vlieghe and Manuel Zahn to be identified as the authors of the editorial material, and of the authors for their individual chapters, has been asserted in accordance with sections 77 and 78 of the Copyright, Designs and Patents Act 1988.

All rights reserved. No part of this book may be reprinted or reproduced or utilised in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system, without permission in writing from the publishers.

Trademark notice: Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

Library of Congress Cataloging-in-Publication Data

Names: Vansieleghem, Nancy, editor. | Vlieghe, Joris, editor. | Zahn, Manuel, editor.

Title: Education in the age of the screen : possibilities and transformations in technology / edited by Nancy Vansieleghem, Joris Vlieghe, and Manuel Zahn.

Description: Abingdon, Oxon ; New York, NY : Routledge, 2019.

Identifiers: LCCN 2019009965 | ISBN 9781138323339 (hb : alk. paper) | ISBN 9780429451478 (eb)

Subjects: LCSH: Educational technology. | Education--Effect of technological innovations on.

Classification: LCC LB1028.3+ | DDC 371.33--dc23

LC record available at <https://lccn.loc.gov/2019009965>

ISBN: 9781138323339 (hbk)

ISBN: 9780429451478 (ebk)

Typeset in Bembo
by Taylor & Francis Books

Contents

<i>List of illustrations</i>	vii
<i>List of contributors</i>	viii
Introduction	1
JORIS Vlieghe, Nancy VansielegheM and Manuel Zahn	
SECTION 1: CONDITIONS	7
1 The academic lecture (1800–present): subject, medium and performance	9
NORM FRIESEN	
2 Education and world disclosure in the age of the screen: On screens, hands and owning the now	23
JORIS Vlieghe	
3 Screening the classic: A case of re-mediation?: The new chronotope and some possible educational consequences	36
STEFANO OLIVERIO	
SECTION 2: MAPPINGS	49
4 Classroom spaces in the making: a sociomaterial account of digital screens in BYOD schools	51
SAMIRA ALI REZA BEIGI AND MATHIAS DECUYPERE	
5 Beyond the Screen: Hatsune Miku in the Context of Post-Digital Culture	68
ANNEMARIE HAHN AND KRISTIN KLEIN	

6	Beyond digital screens – media ecological perspectives on artistic practices in the digital media culture	80
	MANUEL ZAHN	
7	Next school’s art education	92
	TORSTEN MEYER	
	SECTION 3: INTERVENTIONS	105
8	Looking at ourselves looking through a screen. A case study of media education	107
	ANNA CATERINA DALMASSO	
9	Digital literacy in the age of the screen? Re-imagining the social pedagogy of the archive	127
	D.-M. WITHERS AND MARIA FANNIN	
10	Scholastic practices in digital education: on grammatization and poetization in bMOOC	140
	NANCY VANSIELEGHEM	
11	Reframing the making of school in digital times: How art can(not) change digitization	158
	FRANK MAET	
12	Epilogue	171
	NANCY VANSIELEGHEM, JORIS Vlieghe AND MANUEL ZAHN	
	<i>Index</i>	179

Illustrations

Figures

1.1	Philosopher Bertrand Russell eyes the microphone at one of his many BBC lectures. Source: BBC, used with permission	14
7.1	The scope of teaching teachers [see text for details]	94
8.1	Teenagers taking selfies in front of Vincenzo Amendola's grave, Naples, February 2016 (c) La Repubblica: https://napoli.repubblica.it/cronaca/2016/02/20/news_napoli_gara_di_selfie_all_uscita_da_scuola_ucciso_un_ragazzo_mando_la_foto_a_casa_-133829397/	109
8.2	Still from <i>Vedozero</i> ² (2016)	115
8.3	Still from <i>Vedozero</i> ² (2016)	117
8.4	Still from <i>Vedozero</i> ² (2016)	120
8.5	and 8.6 Premiere of <i>Vedozero</i> ² (2016) at the Filmmaker Festival in Milan (c) Massimo Schiavon [same caption for 8.5 and 8.5]	122
9.1	Images of handwritten description using Dublin Core	135
9.2	Images of handwritten description using Dublin Core	136
10.1	Screenshot of the opening page of bMOOC	148
10.2	Screenshot of contributions within one particular topic on bMOOC	149
10.3	Screenshot of two images alongside each other on bMOOC	149
10.4	Screenshot of the instruction page that pops up when the user wants to add a new contribution to bMOOC	150
10.5	Screenshot of the topic of the ignorant schoolmaster – an example of educational commonality	151
10.6	Screenshot of the topic of the ignorant schoolmaster – an example of educational commonality	151
10.7a, 10.7b and 10.7c.	Different forms of media visualizations: a network, a tree, and a grid	154

Contributors

Samira Ali Reza Beigi is a doctoral student at the research groups of Methodology of Educational Sciences, and the laboratory of Education, Culture and Society, University of Leuven, Belgium. She has also collaborated with the department of Art Education at the University of North Texas as a visiting scholar. Her research interests include digitization and new media, qualitative research methodologies, sociomaterial approaches, and philosophy of education.

Anna Caterina Dalmasso is postdoctoral fellow at the *Centre Prospéro* of Saint-Louis University – Brussels. She is the author of a thesis on Merleau-Ponty's philosophy of the visual and its implications for our contemporary scopic regime, recently published in a book (*Le corps, c'est l'écran*, Mimesis, 2018), and the editor, with Mauro Carbone and Jacopo Bodini, of two interdisciplinary volumes addressing the screens as dispositives of reference of our time: *Vivre par(mi) les écrans* (Presses du réel, 2016) and *Des pouvoirs des écrans* (Mimesis, 2018). She is also filmmaker and she has worked in cinema and audiovisual literacy workshops.

Mathias Decuypere is an assistant professor at KU Leuven (Belgium). Primary research interests are directed at developing and using qualitative methodologies for researching the (role of the) digital in higher and regular education (policy), open education and education for sustainable development. Furthermore, the role and position of (sociomaterial and sociotopological) theories in qualitative research methods, and their embeddedness within contemporary sociologies of education, are a central focus.

Maria Fannin is Reader in Human Geography at the University of Bristol. Her research interests include cultural and ethical aspects of human tissue technologies and the histories and legacies of feminist social movements for health.

Norm Friesen is Professor in the College of Education, Boise State University. Dr. Friesen has written over 100 articles in journals ranging from *C-Theory* to AERA's *Educational Researcher*, and has published 10 books. He recently completed *The Textbook and the Lecture: Education in the Age of new Media*, a

monograph from Johns Hopkins University Press exploring how textbook and lecture remain preeminent in educational practice to this day. Professor Friesen is active in the areas of educational technology, philosophy of education and qualitative research. He studied German philosophy and critical theory at the Johns Hopkins University, and has worked as a visiting researcher at the Humboldt University (Berlin), the Leopold-Franzens-University (Innsbruck) and the University of British Columbia (Vancouver).

Annemarie Hahn is a research associate at the department for Art and Art Theory of the University of Cologne, Germany. She studied art education, German language studies and educational sciences in Cologne and also has a professional background in graphics and design. In her PhD thesis, she addresses issues of artificial creativity in the context of inclusive learning.

Kristin Klein is a research associate at the department for art and art theory at the University of Cologne, Germany. She studied cultural and educational sciences, German and art education at the Humboldt University of Berlin, the TU Dresden und Boston University. She recently published the *Workbook Arts Education* (myow.org) with Gila Kolb, Torsten Meyer, and Konstanze Schütze. In her PhD thesis, she addresses aspects of art after the internet and art education in the context of post-digital societies.

Frank Maet is a lecturer in philosophy of art and philosophy of technology at LUCA, School of Arts and special guest lecturer in the arts at KU Leuven (Belgium). Previously he held a position as lecturer at Rietveld Academy Amsterdam (the Netherlands). He published on contemporary art theory (Danto, de Duve, Fried), contemporary artists (Sikander, Murakami, Snibbe), and philosophy of technology (McLuhan, Latour, Stiegler, Nancy). Currently his research focuses on the question how art and aesthetics can contribute to the understanding as well as the development of the digitization.

Torsten Meyer is Professor of Art Education with a focus on contemporary media culture at the University of Cologne (Germany). His academic work focuses on next art education, post-internet arts education and the reform of schools and development of higher education in the 21st century. His publications include: *What's Next? Vol. 1: Kunst nach der Krise* (2013), *Next Art Education* (2013), *Subjekt Medium Bildung* (2014), *What's Next? Vol. 2: Art Education* (2015), *Where the Magic Happens – Bildung nach der Entgrenzung der Künste* (2016), *Arts Education in Transition* (2018). <http://medialogy.de>

Stefano Oliverio is senior lecturer of Education at the Department of Political Sciences of the University of Naples Federico II. He publishes and teaches in the areas of philosophy of education, philosophy for children, intercultural education, and educational theory. Over the last few years he has been

exploring, from a philosophical viewpoint, how new technologies appeal to a revision of our ways of thinking of and practicing education.

Nancy Vansieleghe is coordinator of the educational master in fine arts at LUCA School of Arts (Belgium). She is also special guest lecturer in the arts at KU Leuven. She publishes and teaches in the areas of educational theory, philosophy of childhood/children, art education, radical pedagogies, and the educational turn in the arts. She is mainly interested in issues such as thinking, seeing, speaking, teaching and learning in post-critical times with special focus on the impact of digital technologies. Over the last few years she has also co-edited two documentaries on inclusive education: *DIS_ORDER* (2011) and *BREEDHOEK* (2016).

Joris Vlieghe is an assistant professor of philosophy and theory of education at KU Leuven (Belgium). With Naomi Hodgson and Piotr Zamojski he recently published a *Manifesto for a Post-critical Pedagogy* (Punctum Books, 2018). He is also interested in the impact of digital technologies on education, and more specifically in how fundamental notions such as schooling, attention, community, transformation, literacy and creativity change when a culture of the screen is (rapidly) substituted for a culture of the book.

D.-M. Withers is currently a Research Fellow at the University of Sussex, working on the Leverhulme-funded project *The Business of Women's Words*. The research engages with the cultural heritage of feminist social movements and the politics and pedagogy of the archive. D.-M.'s 2015 book *Feminism, Digital Culture and the Politics of Transmission: Theory, Practice and Cultural Heritage* won the 2015 Feminist and Women's Studies Association book prize. D.-M.'s most recent book is *The Feminist Revolution: the Struggle for Women's Liberation*, published in 2018.

Manuel Zahn studied educational science, philosophy and psychology at the University of Hamburg and received his doctorate with a book on aesthetic film education. He is Professor of Aesthetic Education at the Institute for Art and Art Theory at the University of Cologne. He previously worked as Professor of Art Education at the Academy of Fine Arts Brunswick, and as a research assistant at the universities of Oldenburg and Hamburg. His fields of work are: philosophy of education; media pedagogy, especially film education; and arts education in digital media culture.

Introduction

Joris Vlieghe, Nancy Vansieleghe and Manuel Zahn

One of the most salient changes in the contemporary world is the increasing digitization of our lives. Digital media, and screen technologies more generally, are ubiquitous and seem to have become indispensable (cf. Introna, Ilharco 2006; Vlieghe 2015). This evolution has major consequences for the issue that is central to this book: how to conceive of and to give shape to the education of the young – and future – generation. Indeed, digital devices and techniques (e.g., interactive whiteboards, tablets, smart phones, social media platforms, search engines, translation software, automatic text completion, collaborative online learning tools) are rapidly, if not in a rampant manner, and on an ever larger scale, also introduced and deployed in the contemporary classroom. In the case of open education initiatives, such as MOOCs, it could even be argued that classrooms, or more generally schools and universities, might disappear one day: if, in the (near) future, learning (and teaching) becomes an entirely onscreen enterprise, there is no longer the need for leaving our homes behind and moving ourselves into specific architectural settings, such as school buildings or university campuses. Also, this allows pupils and students to study alone, driven by their own interests and according to their own life rhythm, and to actually study whatever they prefer – anywhere and at any time.

Therefore, the main idea behind this book is that the rise in digital technologies challenges *in a fundamental way* what it means to educate and to be educated, as well as the concrete ways in which education takes shape. This is, digitization might impact ways of thinking about education (and how it is organized) that have existed for a long period of time, such as the often taken for granted assumption that education is by definition *school* education. Or, that it is only possible to gain an academic understanding of the world thanks to an introduction into a tradition and a canonic (fixed and limited) set of knowledge, or as the result of studying (text)books (and learning by heart the facts, insights, and formulae contained in them). In view of recent developments, however, these are no longer self-evident claims. Hence, the future of education becomes a pressing question for which we first need to develop an adequate theoretical language and approach to be able to respond accurately. And responding here may first of all mean to observe closely or to pose the ‘right’ questions about current media culture and their effects on us. This is the focus of this edited volume.

Of course, there is no shortage as far as educational literature on this shift towards the digital is concerned. This book, however, is different from these accounts, which often take a purely instrumental and didactical stance. By this we mean that these studies are predominantly interested in applying new technologies to the field of education, as well as in optimizing learning outcomes. This testifies to a ‘what works’ approach that compares the efficacy and efficiency of old and new ways of doing education. Questions that arise are for instance: have we really become less literate and have our attention levels dropped now that we no longer read ‘real’ books? Is it true that e-learning platforms are engaging youngsters and stimulating their intrinsic motivation much more than traditional school settings ever can? Although these questions, and many others, are valuable ones, they presume that essentially nothing has changed except for the technologies we use. And this entails that the relevant question for educationalists is finding out what technology works best.

In this book, we want to take a step further and explore the idea that, maybe, the very meaning of education *itself* is transformed when we enter the era of screen-based digital media. As such, we set about a broader view of education, viz., education as a cultural and societal phenomenon (rather than merely individual processes of learning). This means that education is to be understood against the background of wider conditions that define a particular culture and society. For instance, learning and teaching in Ancient Greece and in the Late Modern European world are, most likely, *not* the same phenomenon. Hence, education is subject to broader (technological, social, and cultural) evolutions, and today digitization comes in the picture as setting new social conditions (cf. Stiegler 2010; Hörl 2011, 2015).

By social conditions, we mean historically situated parameters within which we commonly think, experience, speak, and act and which determine (to a large extent) what we can think, feel, say, and do. A condition is, more specifically, a background to which one must relate and in view of which our subjectivities get defined. A good example of a change in conditions is the invention of the printing press. Due to the dissemination and ubiquity of printed books, life changed drastically: being illiterate became as enormous a disadvantage, or even impairment, as lacking hearing or vision was before (Eisenstein 1979). Therefore, being able to read and write defines who we are. Obviously, one is not forced to become literate, but even if one might prefer not to learn how to read and write, one can only make this choice negatively: as a response to the fact that one lives in an era of the book. Analogously, one can refuse today to use digital means, but only as a choice against an inescapable condition (cf. Fogel, Patino 2013).

In much contemporary media theory, it is also a commonplace that technological and media-cultural transformations change the ways in which people experience and understand the world and communicate with one another. This assumption is all the more true from an educational perspective, from which it makes sense to defend the following thesis: changes in mediality come with changes in subjectivity (cf. Jörissen, Meyer 2015). Hence, nothing is as

important for the self-understanding of a society and its subjects as the leading media technologies. From this perspective, digitization is a process that deeply intervenes in social conditions and thus in the ways people relate to the world, to others, and to themselves. This is the result of modifications in subject configurations, identity building, memory practices, ways and means of communication, and critical references to culture, to name just a few examples.

Therefore, the first series of contributions to this book (Norm Friesen, Joris Vlieghe, Stefano Oliverio) attempt to analyze these *conditions*, and focus – more specifically – on shifts in culturally and societally dominant technologies, which bring about new and unforeseen ways of understanding ourselves and the world (and hence of how education gives the new generation access to this world). Actually, the impact of the (old and new) technologies we use on how we understand and give shape to education constitutes a thread running through the whole of this book.

It is our claim that the conditions we face today are so novel and so complex that we currently don't possess an adequate understanding of what is happening in front of our eyes, let alone that we would have a vocabulary at our disposal to come to terms with the consequences of digitization for the domain of education. This book wants to take a first step in the direction of a theorization of education in the age of the screen. In order to achieve this, we must also take stock of the concrete situation we are in and therefore, in the second part of this volume (Samira Ali Reza Beigi and Mathias Decuyper, Annemarie Hahn and Kristin Klein, Manuel Zahn and Torsten Meyer), we have gathered contributions that aim at *mapping* our digital educational present. These chapters articulate what is new about digital screen media and media education today, by zooming in on detailed examples of aesthetic practices in the current media culture, and on concrete digital learning and teaching initiatives.

But, taking an educationalists' perspective, it is also important to give answers to the challenges that are coming our way. This is, we are called on to relate to the changes that present themselves as in need of an educational answer. Hence, in the third part, we have brought together contributions (Anna Caterina Dalmaso, D.-M. Withers and Maria Fannin, Nancy Vansielegem and Frank Maet) that discuss concrete responses to the new societal, cultural, and technological conditions of our time. These could be called educational *interventions* in that they present, analyze, and discuss in a detailed manner ideas of how educators can deal with particular issues that arise today.

These analyses of conditions, mapping exercises, and presentations of interventions are closely connected as they all aim at coming to terms with education in the age of the screen. And yet this book covers a large variety of chapters that draw from many different (theoretical) resources, that apply a variety of methods, and that are diverse in style. Rather than trying to reach one overarching perspective, these chapters are themselves illustrations of certain unresolved tensions that come with theorizing education in digital times.

First, some contributions to this book aim at developing general theorizations, which entail claims about digital technology *as such* or *the* screen as a universal category. Other contributors, in turn, emphasize the importance of distinguishing between various digital *technologies* and between different forms of *screens* – always in plural. Furthermore, in some chapters, it is argued that we need to disclose the meaning of the digital by remaining at the surface of the screen (and what appears on it), whereas other authors in this book hold that we need to come and see what is happening ‘behind’ or ‘beyond’ the screen (and which often goes unnoticed), i.e., data (digital objects), software (digital code), and the whole digital network (of networks) in which the screen devices are embedded.

A further point of discussion that arises is that it is not decided whether we can and should start from established concepts and ways of thinking, or whether we have to forge completely new ways of thought and develop an original idiom. This is particularly the case when the issue of the school is concerned. On the one hand, one can just start from the idea that the school is a particular pedagogical form with well-defined and unique features, and that it forms the heart of what education is all about: the question is then whether or not it is still meaningful to have schools in the age of the screen (Masschelein, Simons 2013). On the other hand, one can also begin with an altogether different assumption and try to understand the educational without being concerned about the question of the school, and just look – and analyze – contemporary phenomena that are, at face value, connected with education. All this is related to a fourth opposition, viz., between merely descriptive and normative approaches, the last of which almost necessarily emerges when discussing the impact of the digital. It is easy to hold strong opinions about whether digitization will facilitate a bright future or lead us straight to a cultural abyss, and, hence, whether digitization is to the benefit or the detriment of (school) education. However, it is also possible to start from a more neutral and non-judgmental position, and hence to try and stay away from making normative claims. In sum, the chapters collected in this volume are not an attempt to bring a coherent analysis or theory. Rather, each tries to investigate and do justice to what is at stake today in education.

This book is the result of a three-part series of International Research Seminars ‘Making School in the Age of the Screen.’ This event was held in the academic year 2016–2017 at Liverpool Hope University (UK) and LUCA School of Arts Ghent (Belgium), and it was sponsored by the Philosophy of Education Society of Great Britain (PESGB) Large Grant Scheme. We are grateful for the institutional and financial support we received from these organizations, and we would likewise like to thank the many colleagues and students who participated to the seminar series, as well as the editorial team of Routledge we worked with.

The book consists of a selection of reworked keynotes and papers delivered during the seminars. However, during the research seminars we also read and discussed texts that gave an input to our further discussions and, eventually, to this book. Among others, we explored texts by Giorgio Agamben (2017), Erving Goffman (1981), Lucas Introna and Fernando

Ilharco (2006) and Lev Manovich (2001). Alongside this, we have watched and discussed films together, in particular *Father and Sons* (2014) by Wang Bing, *Lo and Behold* (2016) by Werner Herzog, *The Human Surge* (2016) by Eduardo Williams, *For Now* (2017) by Herman Asselberghs, and *Hyper-Reality* (2016) by Keiichi Matsuda. These collective exercises account for the consistency over the different chapters in terms of problems and issues that are discussed, and of authors/schools of thought that are referred to. One of the central issues taken up in these (film) seminars was the question of what it means to be involved with a subject matter when it appears on a screen: how can things be pointed at, how can attention be drawn, and how can something interesting be touched on under digital conditions? And, how can we as spectators be together with others and things when we look at a screen? The main aim of these exercises was to experience and to discuss ‘screen learning’ as an educational practice, and to focus on the forms of gathering and attention formation that (can) take shape. In other words, this exercise was an attempt to turn the screen into an issue: to make it visible and to experience the screen *as screen*. The selection of the films and the idea of watching these together was an attempt to provoke thinking: to draw the participants into the present, and to articulate our current digital condition. At the same time, it was an attempt to think about ways of how to make experience possible today. This is also what this book aims to be. An attempt to face the present and to call for attention. Provoking thinking, but also speaking about education in the age of the screen.

References

- Agamben, G. (2017). *From the Book to the Screen. The Before and the After of the Book*, translated by Lorenzo Chiesa, in *The Fire and the Tale*. Stanford, CA: Stanford University Press, pp. 83–108.
- Eisenstein, E. (1979). *The Printing Press as an Agent of Change: Communications and Cultural Transformations in Early Modern Europe* (2 vols.). Cambridge: Cambridge University Press.
- Fogel, J.F. and Patino, B. (2013). *La condition numérique. Comment internet bouleverse nos vies*. Paris: Grasset et Fasquelle.
- Goffman, E. (1981). The Lecture, in *Forms of Talk*. Philadelphia, PA: University of Pennsylvania Press, pp. 160–195.
- Hörl, E. (2011) (Ed.). *Die technologische Bedingung. Beiträge zur Beschreibung der technischen Welt*. Berlin: Suhrkamp.
- Hörl, E. (2015). The Technological Condition, translated by Anthony Enns. *Parthesia: A Journal of Critical Philosophy*, 22/2015, 1–15.
- Introna, L.D. and Ilharco, F.M. (2006). The Meaning of Screens: Towards a phenomenological account of screenness. *Human Studies*, 29(1), 57–76.
- Jörissen, B. and Meyer, T. (2015) (Eds.). *Subjekt Medium Bildung*. Wiesbaden: VS Verlag.
- Manovich, L. (2001). The Screen and the User, in *The Language of New Media*. Cambridge, MA: MIT Press, pp. 94–115.

6 Introduction

- Masschelein, J. and Simons, M. (2013). *In Defence of the School. A public issue*. Leuven: E-ducation, Culture & Society Publishers.
- Stiegler, B. (2010). *Taking Care of Youth and the Generations*. Stanford, CA: Stanford University Press.
- Vlieghe, J. (2015). A Technosomatic Account of Education in Digital Times. Neil Postman's views on literacy and the screen revisited. *Studies in Philosophy and Education*, 35(2), 163–179.

Notes

Chapter 1

- 1 This article is loosely based on chapters 8 and 9 in Friesen, N. (2017). *The Textbook and the Lecture: Education in the Age of New Media*. Baltimore, MA: Johns Hopkins University Press.
- 2 For example, referencing audio tapes of Foucault's later lectures at the Collège de France, the editors of *Biopolitics* note: 'We have made use of the recordings made by Gilbert Burlet and Jacques Lagrange in particular [...] Suspension points [in the text] indicate that the recording is inaudible' (Foucault 2008, pp. xv, xvii).
- 3 Foucault sees the lecture simply as an instance of (mostly written) 'discourse.' Bourdieu views it in terms of (mostly unwritten) aspects of power, practice, and ritual. Derrida, for his part, sees the lecture as yet another instance of generalized forms of speaking, writing, and even thought – what he labels 'arche-writing.'

Chapter 2

- 1 This, at least is a thesis defended by Michel Melot (2004) who elaborates Panofsky's famous contention that linear perspective is not just a technological invention but a 'symbolic form'. This is a form that expresses a whole world view and that defines a way of thinking. For Melot the book is the symbolic form *par excellence* of western civilization.
- 2 Throughout this article I will use the terms *ontology* and *ontological* in a strictly phenomenological sense: reality *as it appears to us* changes substantially. The way I use these words also relates to the Foucaultian project of a historical ontology: throughout time the conditions of what counts as real shift (Cf. Hacking 2004 and footnote 7).
- 3 The approach I develop here could also be called post-phenomenological in the sense of the work of Don Ihde (2010), who tries to integrate phenomenological analysis with an interest in the historical conditions of technological objects in their full materiality.
- 4 In his genealogical endeavours to understand 'new media,' Manovich (2001) argues that digital media originated in the contingent event of coupling two already existing technologies, viz., the calculator and the screen. I would argue that this coupling is not enough, and we also have to add mirror technology as a precondition for digital media to come about.
- 5 In another text, Flusser (2000) actually criticizes the so-called reality effect that comes with photography. Too often we forget that the photo camera is a machine that takes a lot of decisions for us. It is a 'black box' that operates autonomously: the

- photographer only decides to press the button at a given moment, but she has no knowledge of the mechanical and optical processes that makes the image appear on the lens (whereas we can much more easily imagine how a painting is constructed).
- 6 In that sense, Dziga Vertov's experimental film *Man with a Movie Camera* would be a very good illustration of the point Flusser is making: the many different positions the camera can take discloses the world in new and unforeseen ways, substituting our natural eyes with a 'kino-eye' (cf. Manovich 2001). This is of course most ironical, as it are the techniques we owe to the invention of cinema (*Vorstellung*) that made possible the effects Flusser makes so much of (*Darstellung*).
 - 7 In this respect, Flusser is close to Michel Foucault's (2003) idea of the *historical a priori*: there are conceptual structures that, *a priori*, shape how the world appears, but these structures themselves change throughout history. Different eras come with different subjectification forms.
 - 8 A good illustration of this last point, moving on from television to digital screens, is what we experience when we communicate with friends and family using Skype-like technology, for instance, when we have moved house to a far-away country. In this case, it is not uncommon for digital natives to experience the meeting as a *real* encounter. It seems that conditions that used to be vital, such as physical presence or the possibility of touching one another, have become meaningless for them. The so-called virtual encounter doesn't feel in any way less meaningful and less real. Furthermore, it would make sense to claim that during such a conversation, one is literally in the presence of one's loved ones. This would go completely against any traditional notion of spatiality as articulated in Kant's philosophy. For Kant, being in space *means* being at point x and hence not being at any other location. One cannot be in two places at the same time. However, due to the invention of interactive screens it has become *possible to experience* exactly this. As a consequence, fundamental notions regarding what it means to be at home and to be abroad have radically changed – or, more exactly: they have become meaningless, they are no longer perceived as real (cf. Godart 2016).
 - 9 This is suggested by Zizek in the documentary *The Pervert's Guide to Cinema* (2006). Commenting on the famous scene in *The Conversation* (1974) where the surveillance expert tries to find out what is happening in the hotel room next door, when the toilet overflows with the blood of the victim of the killers he is trailing. This is a most unpleasant experience, Zizek holds, as our expectation is that what we flush away doesn't return. Zizek then goes on to argue that this is exactly what cinema does: repressing something that nevertheless can return.
 - 10 As Wellner (2014) argues, screen-based devices always appear as closely intertwined with our own bodies, in the sense that they address us as a face (or, more exactly, as a quasi-face). For instance, '[t]he screen of the cell phone, like a facade of a home, represents an exteriority which hides an interiority. The screen acts like a face that requires a response' (Ibid., p. 311). Therefore, in order to understand our rapports to the digital, we need to take into consideration bodily and emotional qualities that relate to the screen that always appears as something other (alterity) in the strong sense of that word.
 - 11 In a sense, this has been corroborated by the designers of the graphical operating systems of our computers. For a long time, the most popular of these was indeed called Windows (cf. Carbone 2013). However, for our smartphones we use now an interface that is fully based on touching virtual buttons. And indeed, the most recent versions of Microsoft Windows Software have started to imitate touch-based smartphone interfaces.
 - 12 This, of course, has been taken up by Lacan in his formulation of the mirror stage (Lacan 1953).
 - 13 Against this, it could be brought in that we do not know how our digital technologies will look like in, say, 30 years. Maybe they will become integrated in our bodies to such

an extent that they can no longer be called convincingly screens in a phenomenological sense. Nonetheless, if we try to make a representation of what this entails, it is difficult to get around the screen, as is shown in Keichi Matsuda's project of a hyper-realist view of the future (<https://www.youtube.com/watch?v=YJg02ivYzSs>).

- 14 Cf. the work of Till Heilmann (2010) on the digital. Loosely inspired by McLuhan, Heilmann holds that we have to understand the digital as a new cultural technique that is based on hitting keys with our fingers.

Chapter 3

- 1 It is hardly necessary to specify that, if this interpretation uses McClintock's volume as a source of inspiration, it cannot in any way be considered as the outcome of McClintock's argument.
- 2 Serres made this word play in an interview in which he presents his book. I am grateful to Dr. Joris Vlieghe for having drawn my attention to this interview.
- 3 I should specify that Gauchet does not use the word 'intelligence,' but I have found it helpful to maintain it, by exploring its etymological deposits through a Gauchetian lens, because it establishes an immediate relation to Serres.
- 4 Elsewhere (Oliverio, 2015), I used the expression 'convergence culture,' by re-adopting it from media studies (see Jenkins, 2006). I am grateful to Dr. Piotr Zamojski (University of Gdansk) for having drawn my attention to the fact that the phrase could risk smacking of Hegelianism, as if there were a sort of *Aufhebung* or synthesis of old and new media. I have to postpone until another occasion a more developed discussion of the many deep and insightful remarks that Dr. Zamojski has made about the question of convergence culture.
- 5 Due to space constraints, I cannot develop here in more detail this argumentative trajectory, in which I would appropriate some refined analyses of the Italian philosopher Mauro Carbone (2016), who has plausibly argued how the screen should not be read in terms of a 'window,' according to a metaphor that could be traced back to Leon Battista Alberti and refers to a space of 'representation' predicated on the subject/object separation and on the reference to a '*metaphysical "beyond"*' (in this sense the 'window' is the trope for Cartesian subjectivity and its search for meaning in Gumbrecht's sense). The screen, instead, inaugurates the domain of a '*mythical "elsewhere"*' (p. 115; emphasis in the original). It could be argued that this 'mythical elsewhere' could also be the site of presentification.
- 6 It is hardly necessary to highlight that a relevant epistemological challenge is implied in this 'somehow.'
- 7 It is appropriate to specify that I will reappropriate in an autonomous way and expand – in the wake of the argument of this paper – Giunta's remarks.

Chapter 4

- 1 The school's learning management system.

Chapter 5

- 1 See the latest case of Cambridge Analytica and its potential to influence people based on their collected data.
- 2 <http://new-aesthetic.tumblr.com/>.

- 3 The design of the character Hatsune Miku plays into Japanese gender stereotypes, and thus mirror a certain image of girls and women in Japan. This article cannot shed any further light on this problem at this point, but wants to point out that Yuji Sone explores this more closely (cf. Sone 2017).
- 4 <https://www.theverge.com/2014/10/9/6951375/david-letterman-hatsune-miku-a-nime>.
- 5 <http://mikuexpo.com/>.
- 6 <http://piapro.net/intl/en.html>.
- 7 Translated from German by the authors: 'Medien werden in dem skizzierten ökologischen Sinne als Infrastrukturen von Wahrnehmungen, Affekten, Handlungen von sowohl menschlichen als auch nichtmenschlichen Akteuren thematisch. Sie ermöglichen, erzwingen und verschließen Verbindungen, Relationen auf vielen Ebenen, wie beispielsweise auf bio- und soziotechnologischer Ebene, zugleich werden Wahrnehmungs- und Handlungsmöglichkeiten auf die an diesen Prozessen beteiligten Akteure verteilt und man spricht von einer *environmental agency*, die weder von Menschen noch von Technologien allein dominiert wird' (Zahn 2017, p. 78).
- 8 Translated from German by the authors: 'Bildschirme als "Knoten" einer weltweit vernetzten, digitalen Medienkultur' (Zahn 2017, p. 74).

Chapter 6

- 1 From a structural point of view the basic form of a screen also can be understood in concepts like 'frame' or 'framing,' which delimits and emphasizes an image from the visual field of perception (see Mersch 2014, p. 23).
- 2 "'Dennoch schwingt das [in jeder subjektiven Wahrnehmung, MZ] als Wunsch mit: sich der eigenen Wahrnehmung versichern als einer, die allen gemeinsam wäre. [...] Dieser Sehnsucht entspricht noch die in fast allen Unterrichtsräumen vorhandene, von allen sichtbare Projektionsfläche, die Tafel – Tafeln sowie das (mittelalterliche) Tafelbild, später die Leinwand und der Bildschirm tragen zur Ausstellung von Kunstwerken in einem öffentlichen Kontext bei. Sie fordern zur Bildung eines gemeinsamen Wahrnehmungsbestandes heraus.'
- 3 'Buchstäblich in ein multiskalares und verteiltes sensorisches Umfeld eingehüllt, erlangt unsere Subjektivität höherer Ordnung ihre Macht nicht, weil sie das, was außen ist, aufnimmt und verarbeitet, sondern vielmehr durch ihre unmittelbare Mitteilhabe oder Beteiligung an der polyvalenten Handlungsmacht unzähliger Subjektivitäten. Unsere ausgesprochen menschliche Subjektivität operiert demnach als mehrwertiges Gefüge größenvariabler Mikrosubjektivitäten, die je unterschiedlich, doch mit erheblichen Überschneidungen funktionieren.'

Chapter 7

- 1 This chapter is loosely based on the article Next Art Education: Eight theses future art educators should think about. *International Journal of Education through Art* 13(3), 369–384.
- 2 'Die Kunst der nächsten Gesellschaft ist leicht und klug. Sie weicht aus und bindet mit Witz. Ihre Bilder, Geschichten und Töne greifen an und sind es nicht gewesen.'
- 3 Thanks to Manfred Faßler for pointing this out.

Chapter 8

- 1 For an analysis of the contemporary screenscape and the theoretical implications of screens in contemporary techno-culture, see Casetti 2015; Mitchell 2015; Chateau

- & Moure 2016; Bodini & Carbone 2016; Bodini et al. 2016; Carbone. 2016a; Bodini et al. 2018; Monteiro 2018.
- 2 For a further exploration of the philosophical implications of this event see the Introduction to Bodini et al. 2016: 5–13.
 - 3 See ‘Circolare n. 14. Linee di indirizzo ed indicazioni in materia di utilizzo di “telefoni cellulari” e di altri dispositivi elettronici durante l’attività didattica’, March 15, 2007.
 - 4 Luciano Floridi suggests to speak of *onlife*, in order to characterize ‘the new experience of a hyperconnected reality within which it is no longer sensible to ask whether one may be online or offline,’ so avoiding to a narrow separation between our real or immediate experience and our virtual life within the media environment: Introduction to Floridi 2014.
 - 5 See also: Meirieu et al. 2012; Tisseron et al. 2013; Tisseron 2017.
 - 6 See also ground-breaking Pippo Delbono’s *La paura* (Italy-France, 2009). A crowdsourcing project like *Life in a Day* has been released in 2011.
 - 7 The first iPhone was released on June 29, 2007, whereas the first phones with built-in cameras became publicly available in 2002, including the Nokia 7650 featuring ‘a large 176x208 pixel colour display.’
 - 8 On this dynamic, see the fundamental classic essays: Bazin 2005: 41–52 and Francastrucchi 1983.
 - 9 Such as the Kouleshov’s or Pudovkin’s experiments. See Pinel 2001.
 - 10 For a phenomenological account of film experience, see Sobchack 1991 and 2016.
 - 11 After having acquainted myself with Andrea Caccia’s work because of my research interests in transmedial documentary cinema, I started a professional collaboration as a consultant with the executive production of the project *Roadmovie production*. Thereafter I had the chance to be involved with the production of *Vedozero*² as first assistant director. Therefore, the analysis I will develop will be partially biased by my internal and experience-based perspective on the project.
 - 12 The problematic notion of digital *innateness* is discussed in detail in Bennett et al. 2008; see also Small 2008; Battro and Denham 2010; Ferri 2011; Rivoltella 2011.
 - 13 For more on post-digital aesthetics, I refer to Berry and Dieter 2015.
 - 14 The survival mode or horde mode is a type of gameplay that can be either selected or in-built in the game interface, in which the player must continue playing without losing their ‘life’ in an uninterrupted session, while the game presents them with increasingly difficult and often unexpected challenges.
 - 15 About the use of the notion of performativity, I refer to Butler 1990 and 1993.

Chapter 9

- 1 We use the term Meta-Data (always hyphenated and capitalized) rather than the more common version ‘metadata’ to underscore the existence of ‘Meta’ as a distinct social location.
- 2 The founding documents of the Feminist Archive can be consulted in the Feminist Archive (South), Bristol: DM2123/1/Archive boxes 68.

Chapter 10

- 1 This chapter is part of the OOF research project: ‘The imaginative side of online learning: A MOOC to think with eyes and hands’ funded by the Association KU Leuven (2014–16). Hence it is the result of a process in which all the project members were involved. Special thanks goes to Jan Masschelein, the co-supervisor of the project, and Thomas Storme, researcher on the project. Their collaboration and input was of crucial importance for the development of this chapter.

- 2 I borrow the term dispositive from Michel Foucault, in order to refer to the presence of power apparatuses that are constituted through an assemblage of discourses and governing technologies, and that constitute a horizon against which people understand and govern themselves and others (see Bussolini, 2010)
- 3 See www.bMOOC.be. BMOOC is part of and one of the realisations of the OOF project mentioned in footnote 1. Researchers involved in the project are: K. Cardinaels (co-supervisor) M. De Blicq, T. De Greve, D. Deschrijver, S. Devleminck, R. Kerkhofs, J. Masschelein (co-supervisor), M. Simons, T. Storme and N. Vansielegheem (supervisor)

Chapter 11

- 1 A quick search on the internet, shows there are a lot of entries, listing the pros and contras of the use of tablets in school, e.g., <https://mastersed.uc.edu/news-resources/the-ipad-debate-are-ipads-truly-helping-with-education/>.
- 2 In relation to the digital future of educational institutions it is interesting to refer to France, where school students were banned to use mobile phones on school grounds from September 2018 onwards. See <https://www.theguardian.com/world/2018/jun/07/french-school-students-to-be-banned-from-using-mobile-phones>.
- 3 The critical method used by Kant is characterized as transcendental idealism: a search for the laws of the cognitive powers that structure the way people can have knowledge of the world. In 'the Critique of the Aesthetic Judgement' Kant (1987) defines the principles that occasion and prestructure the aesthetic judgement before we have a concrete experience of the beautiful.
- 4 We can think here of McLuhan's (2003) famous phrasing 'the medium is the message.' As McLuhan claims, the media influence our psychosocial behaviour. Verbeek, on his part, stresses the making of the media and refers among others to Langdon, Achterhuis, and Latour to defend that artefacts define our (social) behaviour (Verbeek 2012).
- 5 See, e.g., the manifesto of *Ars Industrialis*, an organization initiated by Bernard Stiegler: <http://www.arsindustrialis.org/node/1472>.
- 6 Weyns presented an analysis of the present human experience of time at the *University of Flanders*, which is an initiative that broadcasts (on the internet, radio and TV) short lectures of top scientists, aimed at a big audience. Weyns posed the question whether it is possible to destroy time. See <https://www.universiteitvanvlaanderen.be/college/kan-tijd-kapot/> or <https://www.youtube.com/watch?v=MFxLGBqEKfc>.
- 7 See <https://www.snibbe.com/>.
- 8 We can link this to postmodernism and the end of grand narratives, as described by Lyotard (1984). According to Lyotard, postmodernity is characterized by the loss of grand narratives, such as Catholicism, Marxism, modern utopianism, etc. that structure people's life from the beginning to the end. What is lost is the social givenness of a shared sense. Instead, we are confronted with a collection of many different small stories, existing opposed and next to each other.
- 9 See <https://www.universiteitvanvlaanderen.be/college/kan-tijd-kapot/> or <https://www.youtube.com/watch?v=MFxLGBqEKfc>.
- 10 See <https://www.snibbe.com/>.
- 11 See <https://www.snibbe.com/apps#/rework/>.
- 12 See <https://www.ted.com/about/our-organization>. The *University of Flanders* is a similar organization.

References

- Agamben, G. (2017). *From the Book to the Screen. The Before and the After of the Book*, translated by Lorenzo Chiesa, in *The Fire and the Tale*. Stanford, CA: Stanford University Press, pp. 83–108.
- Eisenstein, E. (1979). *The Printing Press as an Agent of Change: Communications and Cultural Transformations in Early Modern Europe* (2 vols.). Cambridge: Cambridge University Press.
- Fogel, J.F. and Patino, B. (2013). La condition numérique. Comment internet bouleverse nos vies. Paris: Grasset et Fasquelle.
- Goffman, E. (1981). The Lecture, in *Forms of Talk*. Philadelphia, PA: University of Pennsylvania Press, pp. 160–195.
- Hörl, E. (2011) (Ed.). *Die technologische Bedingung. Beiträge zur Beschreibung der technischen Welt*. Berlin: Suhrkamp.
- Hörl, E. (2015). The Technological Condition, translated by Anthony Enns. *Parrhesia: A Journal of Critical Philosophy*, 22/2015, 1–15.
- Introna, L.D. and Ilharco, F.M. (2006). The Meaning of Screens: Towards a phenomenological account of screenness. *Human Studies*, 29(1), 57–76.
- Jörissen, B. and Meyer, T. (2015) (Eds.). *Subjekt Medium Bildung*. Wiesbaden: VS Verlag.
- Manovich, L. (2001). The Screen and the User, in *The Language of New Media*. Cambridge, MA: MIT Press, pp. 94–115.
- Masschelein, J. and Simons, M. (2013). *In Defence of the School. A public issue*. Leuven: E-ducation, Culture & Society Publishers.
- Stiegler, B. (2010). *Taking Care of Youth and the Generations*. Stanford, CA: Stanford University Press.
- Vlieghe, J. (2015). A Technosomatic Account of Education in Digital Times. Neil Postman's views on literacy and the screen revisited. *Studies in Philosophy and Education*, 35(2), 163–179.
- Agarwal, A. (2013). In J.R. Young, *The New Rock-Star Professor: Should celebrities teach online classes?* *Slate*, 6. Accessed December 6, 2016. http://www.slate.com/articles/technology/futuretense/2013/11/udacity_courserashouldcelebrityteachmoocs.html.
- Arnheim, R. (1936). *Radio*. London: Faber & Faber.
- Bourdieu, P. (1982). A Lecture on the Lecture, in *In Other Words: Essays Toward a Reflexive Sociology*. Stanford, CA: Stanford University Press, pp. 17–19.
- Bowman, C. (2017). Johann Gottlieb Fichte (1762–1814). Internet Encyclopedia of Philosophy. Accessed February 6, 2017. <http://www.iep.utm.edu/fichtejg/>.

- Clark, W. (2006). *Academic Charisma and the Origins of the Research University*. Chicago, IL: University of Chicago Press.
- Deem, R., Hillyard, S., and Reed, M. (2007). *Knowledge, Higher Education, and the New Managerialism: The Changing Management of UK Universities*. Oxford: Oxford University Press.
- Derrida, J. (2002). The University without Condition, in P. Kamuf (Ed.) *Without Alibi*. Stanford, CA: Stanford University Press, pp. 202–280.
- Ehrlich, A. (1977). *Fichte als Redner*. [Fichte as a Speaker]. Munich: tuduv-Verlagsgesellschaft.
- Fichte, J.G. (1993). Concerning the Difference between the Spirit and the Letter in Philosophy, in D. Breazeale (Ed.) *Fichte: Early Philosophical Writings*. Ithaca, NY: Cornell University Press, pp. 185–216.
- Foucault, M. (1970). *Folie, littérature, société. Interview with T. Shimizu and M. Wantanabe*. Accessed February 10, 2017. <http://1libertaire.free.fr/MFoucault351.html>.
- Foucault, M. (1981). The Order of Discourse, in R. Young (Ed.) *Untying the Text: A Post-Structuralist Reader*. London: Routledge, pp. 51–78.
- Foucault, M. (2008). *The Birth of Biopolitics: Lectures at the Collège de France, 1978–1979*. New York: Palgrave.
- Friesen, N. (2015). Dewey's Cosmic Traffic: Politics and Pedagogy as Communication, in M. Naser-Lather and C. Neubert (Eds.) *Traffic: Media as Infrastructures and Cultural Practices*. Leiden: Brill.
- Gallo, C. (2014). 9 Public-Speaking Lessons from the World's Greatest TED Talks. *Forbes*, March 4. <https://www.forbes.com/sites/carminegallos/2014/03/04/9-public-speaking-lessons-from-the-worlds-greatest-ted-talks/#2d833b4c4a9d>.
- Geminus. (1960). It seems to me. *New Scientist*, May 19, 1290.
- Goffman, E. (1981). *The Lecture*, in *Forms of Talk*. Philadelphia, PA: University of Pennsylvania Press, pp. 162–195.
- Humboldt-Universität zu Berlin (2016). Short History. https://www.hu-berlin.de/en/about/history/huben_html/huben_html.
- Ince, R. (2012). Bertrand Russell: The first media academic. Archive on 4. London: BBC Worldwide Limited, 2012. Accessed February 11, 2017. <http://www.bbc.co.uk/programmes/b019dzpp>.
- Introna, L.D. and Ilharco, F.M. (2006). On the Meaning of Screens: Towards a Phenomenological Account of Screenness. *Human Studies*, 29(1), 57–76.
- Karlsohn, T. (2014). On Humboldtian and Contemporary Notions of the Academic Lecture, in T. Karlsohn and P. Josephson (Eds.) *The Humboldtian Tradition: Origins and Legacies*. Leiden: Brill, (pp. 44–57).
- Kittler, F. (1990). *Discourse Networks: 1800/1900*. Stanford, CA: Stanford University Press.
- Kittler, F. (2013). *Philosophien der Literatur: Berliner Vorlesung 2002*. Berlin: Merve Verlag.
- Klass, G. (2000). Plato as Distance Education Pioneer: Status and Quality Threats of Internet Education. *First Monday* 5(7). Accessed February 7, 2017. <http://firstmonday.org/ojs/index.php/fm/rt/prinTFriendly/775/684>.
- Knoblach, H. (2012). *PowerPoint, Communication, and the Knowledge Society*. Cambridge: Cambridge University Press.
- Lawler, L.J. (1964). Lecturing by Television. *New Scientist*, July 16, 174.
- Nietzsche, F. (2016). *Anti-Education: On the Future of Our Educational Institutions*. New York: New York Review of Books.

- Prange, K. (2012). *Die Zeigestruktur der Erziehung: Grundriss der operativen Pädagogik*. Paderborn: Ferdinand Schöningh.
- Reisz, M. (2012). Bertrand Russell: The First Media Academic. *Times Higher Education*, January 12. <https://www.timeshighereducation.com/features/culture/the-pick-bertrand-russell-the-first-media-academic/418684.article>.
- von Humboldt, W. (1970). On the Spirit and Organisational Framework of Intellectual Institutions in Berlin. *Minerva* 8(2), 242–267.
- Wikipedia contributors. (2018). TED (conference), July 23. In *Wikipedia, The Free Encyclopedia*. Accessed July 28, 2018. [https://en.wikipedia.org/w/index.php?title=TED_\(conference\)&oldid=851646382](https://en.wikipedia.org/w/index.php?title=TED_(conference)&oldid=851646382).
- Young, J.R. (2013). The New Rock-Star Professor: Should celebrities teach online classes? *Slate*. Accessed July 28, 2018. <https://slate.com/technology/2013/11/uda-city-coursera-should-celebrities-teach-moocs.html>.
- Arendt, H. (1961). The Crisis in Education, in *Between Past and Future: Eight Exercises in Political Thought*. New York: Viking Press.
- Barthes, R. (1981). *Camera Lucida*, translated by Richard Howard. New York: Hill & Wang.
- Böhme, J. (2006). *Schule am Ende der Buchkultur. Medientheoretische Begründungen schulischer Bildungsarchitekturen*. Bad Heilbrunn: Klinkhardt.
- Carbone, M. (2013). La vie mouvementée des écrans. *Écrans*, 1(3), 21–33.
- Carbone, M. (2015). *The Flesh of Images. Merleau-Ponty between Painting and Cinema*, translated by M. Nijhuis. New York: SUNY.
- Cooley, H. (2004). It's All About the *Fit*: The Hand, the Mobile Screenic Device and Tactile Vision. *Journal of Visual Culture*, 3(2), 133–155.
- Dalmaso, C. (2013) Voir selon l'écran. Autour d'une rencontre entre visibilité et théorie filmique, in M. Carbone (Ed.) *L'empreinte du visuel*. Les Acacias: Metis-Presses, pp. 107–125.
- Eisenstein, E. (1979). *The Printing Press as an Agent of Change: Communications and cultural transformations in early modern Europe* (2 vols.). Cambridge: Cambridge University Press.
- Flusser, V. (2000). *Towards a Philosophy of Photography*, translated by Anthony Mathews. London: Reaktion Books.
- Flusser, V. (1997). Für eine Phänomenologie des Fernsehens, in S. Bollmann (Ed.) *Medienkultur*, = ftb 13386. Frankfurt am Main: Fischer Taschenbuch Verlag, pp. 103–123.
- Foucault, M. (2003). *Archaeology of Knowledge*, translated by. A.M. Sheridan Smith. London: Routledge.
- Friesen, N. (2017). *The Textbook and the Lecture. Education in the Age of New Media*. Baltimore, MA: Johns Hopkins University Press.
- Godart, E. (2016). *Je selfie donc je suis. Les métamorphoses du moi à l'ère du virtuel*. Paris: Albin Michel.
- Hacking, I. (2004). *Historical Ontology*. Cambridge, MA: Harvard University Press.
- Heilmann, T. (2010). Digitalität als Taktilität. McLuhan, der Computer und die Taste. *Zeitschrift für Medienwissenschaft*, 2, 125–134.
- Huhtamo, E. (2013). *Illusions in Motion. Media Archaeology of the Moving Panorama and Related Spectacles*. Cambridge, MA: MIT Press.
- Ilde, D. (2010). *Heidegger's Technologies: Postphenomenological Perspectives*. New York: Fordham University Press.

- Illich, I. (1996). Text and University. On the idea and history of a unique institution. Accessed May 29, 2018. http://www.davidtinapple.com/illich/1991_text_and_university.PDF.
- Introna, L. and Ilharco, F. (2006). On the Meaning of Screens: Towards a Phenomenological Account of Screenness. *Human Studies*, 29(1), 57–76.
- Lacan, J. (1953). Some Reflections on the Ego. *The International Journal of Psycho-Analysis*, 34(1), 11–17.
- Manovich, L. (2001). *The Language of New Media*. Cambridge, MA: MIT Press.
- Marin, L., Masschelein, J., and Simons, M. (2018). Page, Text and Screen in the University: Revisiting the Illich hypothesis. *Educational Philosophy and Theory*, 50(1), 49–60.
- Melot, M. (2004). Le Livre comme forme symbolique. Conférence tenue dans le cadre de l'École de l'Institut d'histoire du livre. Accessed May 29, 2018. <http://ihl.enssib.fr/le-livre-comme-forme-symbolique>.
- Merleau-Ponty, M. (1994). Eye and Mind, in A.G. Johnson (Ed.), translated by M.B. Smith. *The Merleau-Ponty Aesthetics Reader*. Evanston, IL: Northwestern University Press, pp. 121–149.
- Mollenhauer, K. (2013). *Forgotten Connections: On Culture and Upbringing*, translated by N. Friesen. London: Routledge.
- Postman, N. (1982). *The Disappearance of Childhood*. New York: Vintage Books.
- Rousseau, J.J. (1799). *Emile, or On Education*, translated by Allan Bloom. New York: Basic Books.
- Tisseron, S. (2010). *Cultures du livre et des écrans. La cohabitation indispensable*. Le Carnet PSY, 144.
- Serres, M. (2012). *Petite Poucette*. Paris: Editions le Pommier.
- Sobchack, V. (2004). *Carnal Thoughts: Embodiment and Moving Image Culture*. Berkeley, CA: University of California Press.
- Stiegler, B. (1998). *Technics and Time, 1*, translated by Richard Beardsworth and George Collins. Stanford, CA: Stanford University Press.
- Stiegler, B. (2002). The Discrete Image, in *Echographies of Television: Filmed Interviews*, translated by Jennifer Bajorek. Cambridge: Polity Press.
- Virilio, P. (1994). *The Vision Machine*, translated by Julie Rose. Bloomington, IN: Indiana University Press.
- Vlieghe, J. (2015). A Technosomatic Account of Education in Digital Times. Neil Postman's views on literacy and the screen revisited. *Studies in Philosophy and Education*, 35(2), 163–179.
- Wellner, G. (2014). The Quasi-Face of the CellPhone: Rethinking alterity and screens. *Human Studies*, 37(3), 299–316.
- Agamben, G. (2017). *The Fire and the Tale*. Stanford, CA: Stanford University Press.
- Blumenberg, H. (1986). *Die Lesbarkeit der Welt*. Frankfurt am Main: Suhrkamp.
- Böhme, J. (2006). *Schule am Ende der Buchkultur*. Bad Heilbrunn: Julius Klinkhardt.
- Bolter, J. D. and Grusin, R. (2000). *Remediation. Understanding New Media*. Cambridge, MA: MIT Press.
- Carbone, M. (2016). *Filosofia-schermi. Dal cinema alla rivoluzione digitale*. Milano: Raffaello Cortina editore.
- Dewey, J. (1988). Experience and Education, in J.A. Boydston (Ed.) *The Later Works of John Dewey, 1925–1953, vol. 13*. Carbondale and Edwardsville, IL: Southern Illinois University Press, pp. 1–62.
- Eco, U. (1964). *Apocalittici e integrati*. Milano: Bompiani.

- Flusser, V. (1995). *Gesten. Versuch einer Phänomenologie*. Frankfurt am Main: Fischer.
- Flusser, V. (2011). *Does Writing Have a Future?* Minneapolis, MN: University of Minnesota Press.
- Gauchet, M. (2010). Des savoirs privés de sens?, in M.-C. Blais, M. Gauchet, D. Ottavi, *Conditions de l'éducation*. Paris: Pluriel/Fayard, pp. 63–92.
- Giunta, C. (2017). *E se non fosse la buona battaglia? Sul futuro dell'istruzione umanistica*. Bologna: il Mulino.
- Gumbrecht, H.U. (2004). *Production of Presence: What Meaning Cannot Convey*. Stanford, CA: Stanford University Press.
- Gumbrecht, H.U. (2014). *Our Broad Present. Time and Contemporary Culture*. New York, NY: Columbia University Press.
- Jenkins, H. (2006), *Convergence Culture: Where Old and New Media Collide*. New York, NY: New York University Press.
- McClintock, R. (2012). *Enough. A Pedagogic Speculation*. New York, NY: The Reflective Commons.
- Morin, E. (1999). *La tête bien faite. Repenser la réforme, réformer la pensée*. Paris: Le Seuil.
- Oliverio, S. (2015). The Need for 'Connectedness in Growth'. Experience and education and the new technological culture. *Education & Culture* 31(2), 55–68.
- Postman, N. (1979). *Teaching as a Conserving Activity*. New York, NY: Dell.
- Postman, N. (1985). *Amusing Ourselves to Death: Public Discourse in the Age of Show Business*. New York, NY: Viking Penguin.
- Serres, M. (2012). *Petite Poucette*. Paris: Manifestes Le Pommier.
- Stiegler, B. (2008), *Prendre Soins: Tome 1, De la jeunesse et des générations*. Paris: Flammarion.
- Vlieghe, J. (2016). A Material and Practical Account of Education in Digital Times: Neil Postman's views on literacy and the screen revisited. *Studies in Philosophy and Education* 35(2), 163–179.
- Adams, C. and Thompson, T.L. (2016). *Researching a Posthuman World: Interviews with Digital Objects*. Springer Nature. <https://doi.org/DOI 10.1057/978-1-137-57162-5>.
- Carvalho, L., Goodyear, P., and de Laat, M. (2016). *Place-Based Spaces for Networked Learning*. <https://doi.org/10.4324/9781315724485>.
- Decuyper, M. and Simons, M. (2014). On the Composition of Academic Work in Digital Times. *European Educational Research Journal* 13(1), 89–106. <https://doi.org/10.2304/eej.2014.13.1.89>.
- Decuyper, M. and Simons, M. (2016a). Relational Thinking in Education: Topology, sociomaterial studies, and figures. *Pedagogy, Culture and Society* 24(3), 371–386. <http://doi.org/10.1080/14681366.2016.1166150>.
- Decuyper, M. Simons, M. (2016b). What Screens Do: The role(s) of the screen in academic work. *European Educational Research Journal* 15(1), 132–151. <https://doi.org/10.1177/1474904115610335>.
- Fenwick, T. (2011). Reading Educational Reform with Actor Network Theory: Fluid spaces, otherings, and ambivalences. *Educational Philosophy and Theory* 43(SUPPL. 1), 114–134. <https://doi.org/10.1111/j.1469-5812.2009.00609.x>.
- Fenwick, T. (2014). Knowledge Circulations in Inter-para-professional Practice: A socio-material enquiry. *Journal of Vocational Education & Training* 66(3), 264–280. <https://doi.org/10.1080/13636820.2014.917695>.
- Fenwick, T., Edwards, R., and Sawchuk, P. (2011). Emerging Approaches to Educational Research: Tracing the socio-material. *Emerging Approaches to Educational Research: Tracing the Sociomaterial*, 232. <https://doi.org/doi:10.4324/9780203817582>

- Latour, B. (2005). *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford: Oxford University Press.
- Law, J. (2002). Objects and Spaces. *Theory, Culture & Society* 19(5–6), 91–105. <https://doi.org/10.1177/026327602761899165>.
- Law, J. (2007). Making a Mess with Method. *Centre for Science Studies* March, 1–12. <https://doi.org/http://dx.doi.org/10.4135/9781848607958.n33>.
- Massey, D. (2005). For Space. *America*. <https://doi.org/10.1016/j.futures.2009.04.019>
- McGregor, J. (2003). Making Spaces: Teacher workplace topologies. *Pedagogy, Culture and Society* 11(3), 353–377. <https://doi.org/10.1080/14681360300200179>.
- McGregor, J. (2004). Spatiality and the Place of the Material in Schools. *Pedagogy, Culture & Society* 12(3), 347–372. <https://doi.org/10.1080/14681360400200207>.
- Mifsud, L. (2014). Mobile Learning and the Socio-materiality of Classroom Practices. *Learning, Media and Technology* 39(1), 142–149. <https://doi.org/10.1080/17439884.2013.817420>.
- Mol, A. and Law, J. (1994). Regions, Networks, and Fluids: Anaema and social Topology. *Social Studies of Science* 24, 641–671.
- Nespor, J. (1994). *Knowledge in Motion – Space, Time and Curriculum in Undergraduate Physics and Management. Knowledge the Identity and School Life, vol. 2*. <https://doi.org/10.1017/CBO9781107415324.004>
- Nespor, J. (2002). Studying the Spatialities of Schooling. *Pedagogy, Culture and Society* 10(3), 483–491. <https://doi.org/10.1080/14681360200200155>.
- Paechter, C. (2004). Metaphors of Space in Educational Theory and Practice. *Pedagogy, Culture and Society*, 12(3), 449–466. <https://doi.org/10.1080/14681360400200202>
- Rißler, G., Bossen, A., and Blasse, N. (2014). School as Space: Spatial alterations, teaching, social motives, and practices. *Studia Paedagogica* 19(4), 145–160. <https://doi.org/10.5817/SP2014-4-7>.
- Roehl, T. (2012). From Witnessing to Recording – Material objects and the epistemic configuration of science classes. *Pedagogy, Culture and Society* 20(1), 49–70. <https://doi.org/10.1080/14681366.2012.649415>.
- Song, Y. (2014). ‘Bring Your Own Device (BYOD)’ for Seamless Science Inquiry in a Primary School. *Computers and Education* 74, 50–60. <https://doi.org/10.1016/j.comp.edu.2014.01.005>.
- Sørensen, E. (2009). *The Materiality of Learning: Technology and Knowledge in Educational Practice*. Cambridge: Cambridge University Press.
- Stevens, T. (2017). *Blending Learning and Technology: Degree Studies at Vocational Training College as a Case in Point*. Melbourne Graduate School of Education. Retrieved from <https://minerva-access.unimelb.edu.au/handle/11343/194878>. Adams, C. and Thompson, T.L. (2016). *Researching a Posthuman World: Interviews with Digital Objects*. Springer Nature. <https://doi.org/DOI.10.1057/978-1-137-57162-5>.
- Carvalho, L., Goodyear, P., and de Laat, M. (2016). *Place-Based Spaces for Networked Learning*. <https://doi.org/10.4324/9781315724485>.
- Decuyper, M. and Simons, M. (2014). On the Composition of Academic Work in Digital Times. *European Educational Research Journal* 13(1), 89–106. <https://doi.org/10.2304/eej.2014.13.1.89>.
- Decuyper, M. and Simons, M. (2016a). Relational Thinking in Education: Topology, sociomaterial studies, and figures. *Pedagogy, Culture and Society* 24(3), 371–386. <http://doi.org/10.1080/14681366.2016.1166150>.

- Decuyper, M., Simons, M. (2016b). What Screens Do: The role(s) of the screen in academic work. *European Educational Research Journal* 15(1), 132–151. <https://doi.org/10.1177/1474904115610335>.
- Fenwick, T. (2011). Reading Educational Reform with Actor Network Theory: Fluid spaces, otherings, and ambivalences. *Educational Philosophy and Theory* 43(SUPPL. 1), 114–134. <https://doi.org/10.1111/j.1469-5812.2009.00609.x>.
- Fenwick, T. (2014). Knowledge Circulations in Inter-para/professional Practice: A socio-material enquiry. *Journal of Vocational Education & Training* 66(3), 264–280. <https://doi.org/10.1080/13636820.2014.917695>.
- Fenwick, T., Edwards, R., and Sawchuk, P. (2011). Emerging Approaches to Educational Research: Tracing the socio-material. *Emerging Approaches to Educational Research: Tracing the Sociomaterial*, 232. <https://doi.org/doi:10.4324/9780203817582>
- Latour, B. (2005). *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford: Oxford University Press.
- Law, J. (2002). Objects and Spaces. *Theory, Culture & Society* 19(5–6), 91–105. <https://doi.org/10.1177/026327602761899165>.
- Law, J. (2007). Making a Mess with Method. *Centre for Science Studies* March, 1–12. <https://doi.org/http://dx.doi.org/10.4135/9781848607958.n33>.
- Massey, D. (2005). For Space. *America*. <https://doi.org/10.1016/j.futures.2009.04.019>
- McGregor, J. (2003). Making Spaces: Teacher workplace topologies. *Pedagogy, Culture and Society* 11(3), 353–377. <https://doi.org/10.1080/14681360300200179>.
- McGregor, J. (2004). Spatiality and the Place of the Material in Schools. *Pedagogy, Culture & Society* 12(3), 347–372. <https://doi.org/10.1080/14681360400200207>.
- Mifsud, L. (2014). Mobile Learning and the Socio-materiality of Classroom Practices. *Learning, Media and Technology* 39(1), 142–149. <https://doi.org/10.1080/17439884.2013.817420>.
- Mol, A. and Law, J. (1994). Regions, Networks, and Fluids: Anaema and social Topology. *Social Studies of Science* 24, 641–671.
- Nespor, J. (1994). *Knowledge in Motion – Space, Time and Curriculum in Undergraduate Physics and Management. Knowledge the Identity and School Life, vol. 2*. <https://doi.org/10.1017/CBO9781107415324.004>
- Nespor, J. (2002). Studying the Spatialities of Schooling. *Pedagogy, Culture and Society* 10(3), 483–491. <https://doi.org/10.1080/14681360200200155>.
- Paechter, C. (2004). Metaphors of Space in Educational Theory and Practice. *Pedagogy, Culture and Society*, 12(3), 449–466. <https://doi.org/10.1080/14681360400200202>
- Rißler, G., Bossen, A., and Blasse, N. (2014). School as Space: Spatial alterations, teaching, social motives, and practices. *Studia Paedagogica* 19(4), 145–160. <https://doi.org/10.5817/SP2014-4-7>.
- Roehl, T. (2012). From Witnessing to Recording – Material objects and the epistemic configuration of science classes. *Pedagogy, Culture and Society* 20(1), 49–70. <https://doi.org/10.1080/14681366.2012.649415>.
- Song, Y. (2014). ‘Bring Your Own Device (BYOD)’ for Seamless Science Inquiry in a Primary School. *Computers and Education* 74, 50–60. <https://doi.org/10.1016/j.comp.edu.2014.01.005>.
- Sørensen, E. (2009). *The Materiality of Learning: Technology and Knowledge in Educational Practice*. Cambridge: Cambridge University Press.
- Stevens, T. (2017). *Blending Learning and Technology: Degree Studies at Vocational Training College as a Case in Point*. Melbourne Graduate School of Education. Retrieved from <https://minerva-access.unimelb.edu.au/handle/11343/194878>.

- Baecker, D. (2007). *Studien zur nächsten Gesellschaft*. Berlin: Suhrkamp Verlag.
- Berry, D. (2014). Post-Digital Humanities. Computation and cultural critique in the arts and humanities. *Educause Review*. Accessed April 30, 2018: <https://er.educause.edu/articles/2014/5/postdigital-humanities-computation-and-cultural-critique-in-the-arts-and-humanities>.
- Berry, D. and Dieter, M. (2015). *Post-Digital Aesthetics. Art, Computation and Design*. New York, NY: Palgrave Macmillan.
- Bosma, J. (2013). Post-Digital is Post-Screen: Arnheim's visual thinking applied to art in the expanded digital media field. *A peer reviewed journal about (Aprja)*. Accessed September 28, 2017. <http://www.aprja.net/post-digital-is-post-screen-arnheims-visual-thinking-app lied-to-art-in-the-expanded-digital-media-field/>.
- Bourriaud, N. (2002). *Postproduction. Culture as Screenplay: How Art Reprograms the World*. New York, NY: Lucas & Sternberg.
- Bravo, D. (2003). *Screen (1)*. Accessed April 30, 2018. <https://lucian.uchicago.edu/blogs/mediatheory/keywords/screen-1/>.
- Bridle, James (2013). *The New Aesthetic and its Politics*. Accessed April 30, 2018. <http://booktwo.org/notebook/new-aesthetic-politics/>.
- Cascone, K. (2000). The Aesthetics of Failure: 'Post-digital' tendencies in contemporary computer music. *Computer Music Journal* 24(4), 12–18.
- Cramer, F. (2015). What Is Post-Digital? *A peer-reviewed journal about (Aprja)*. Accessed March 17, 2018. <http://www.aprja.net/what-is-post-digital/>.
- Contreras-Koterbay, S. and Mirocha, Ł. (2016). The New Aesthetic and Art: Constellations of the postdigital. Institute of Network Cultures. *Theory on Demand*, 20. Accessed April, 30, 2018. <http://networkcultures.org/wp-content/uploads/2016/07/TOD20-final.pdf>.
- Jörissen, B. and Meyer, T. (Eds.) (2015). *Subjekt Medium Bildung (Medienbildung und Gesellschaft 28)*. Wiesbaden: SpringerVS.
- Leeker, M., Schipper, I., and Beyes, T. (2017). Performativity, Performance Studies and Digital Cultures, in M. Leeker, I. Schipper, and T. Beyes (Eds.) *Performing the Digital. Performativity and Performance Studies in Digital Cultures*. Bielefeld: Transcript Verlag, pp. 9–20.
- Lovink, G. (2016). *Social Media Abyss: Critical Internet Cultures and the Force of Negation*. Cambridge: Polity Press.
- Meyer, T. (2015). Next Art Education. 9 essential theses. In T. Meyer and G. Kolb (Eds.). *What's Next? Band II: Art Education*. Munich: Kopaed.
- Negroponte, N. (1998). Beyond Digital. *Wired (December)*. Accessed April 30, 2018. <http://www.wired.com/wired/orchive/6.12/negroponte.html>.
- Pazzini, K.-J. (2015). *Bildung vor Bildern. Kunst – Pädagogik – Psychoanalyse*. Bielefeld: Transcript Verlag.
- Price, S. (2002). *Dispersion*. Accessed May 1, 2018. <http://www.distributedhistory.com/Disperzone.html>.
- Rainie, L. and Wellman, B. (2012). *Networked: The New Social Operating System*. Cambridge, MA: MIT Press.
- Seemann, M. (2018). *What Is Platform Politics? Foundations of a New Form of Political Power*. Accessed April 30, 2018: <http://www.ctrl-verlust.net/what-is-platform-politics-foundations-of-a-new-form-of-political-power/>.
- Sone, Y. (2017). *Japanese Robot Culture: Performance, Imagination, and Modernity*. New York, NY: Palgrave Macmillan.

- Stalder, F. (2018). *The Digital Condition*. Cambridge: Polity Press.
- Toffler, A. (1980). *The Third Wave*. London: Collins.
- Vierkant, A. (2010). The Image Object Post-Internet. Accessed April 30, 2018. http://jstchillin.org/artie/pdf/The_Image_Object_Post-Internet_us.pdf.
- von Bismarck, B. (2008). Display/Displacement. Zur Politik des Präsentierens, in J. John, D. Richter, and S. Schade (Eds.) *Re-Visionen des Displays. Ausstellungs-Szenarien, ihre Lektüren und ihr Publikum*. Zurich: JRP Ringier Kunstverlag, pp. 69–82.
- Zahn, M. (2017). Bildschirme. Medienökologische Perspektiven auf das (in)dividuelle Phantasma in der aktuellen Medienkultur, in T. Meyer, A. Sabisch, O. Wollberg, and M. Zahn (Eds.). *Übertrag. Schriftenreihe Kunst Medien Bildung, vol. 2*. Munich: kopaed, pp. 73–81.
- Agamben, G. (2009). *What is an Apparatus? and Other Essays*. Stanford, CA: Stanford University Press.
- Briz, N., Meaney, E., Menkman, R., Robertson, W., Satrom, J., and Westbrook, J. (Eds.) (2011). *GLI.TC/H READER[ROR].2011*. Tokyo: Unsorted Books.
- Foucault, M. (1978). Das Dispositiv, in *Dispositive der Macht. Michel Foucault über Sexualität, Wissen und Wahrheit*. Berlin: Merve, pp. 119–125.
- Foucault, M. (1992). *Was ist Kritik?* Berlin: Merve.
- Hansen, M.B.N. (2011) Medien des 21. Jahrhunderts, technisches Empfinden und unsere originäre Umweltbedingung, in E. Hörl (Ed.) *Die technologische Bedingung*. Frankfurt am Main: Suhrkamp, pp. 365–410.
- Horkheimer, M. (1952/1985). Begriff der Bildung, in *Gesammelte Schriften, vol. 8*. Frankfurt am Main: Fischer, pp. 409–419.
- Hörl, E. (Ed.) (2011). *Die technologische Bedingung*. Frankfurt am Main: Suhrkamp.
- Hörl, E.H. (2016). Die Ökologisierung des Denkens, in P. Löffler and F. Sprenger (Eds.) *Medienökologien. Zeitschrift für Medienwissenschaft 14*. Zurich, Berlin: Diaphanes.
- Hörl, E.H. and Hansen, M.B.N. (2013). Medienästhetik. *Zeitschrift für Medienwissenschaft 8*. Zurich, Berlin: Diaphanes.
- Lacan, J. (1987). *Die vier Grundbegriffe der Psychoanalyse, Seminar XI (3rd ed.)*, Berlin: Weinheim.
- Lacan, J. (2006). *Die Bildungen des Unbewussten, Seminar V (1957–1958)*. Vienna: Turia & Kant.
- Löffler, P. and Sprenger, F. (Ed.) (2016). *Medienökologien, Zeitschrift für Medienwissenschaft 14*. Zurich, Berlin: Diaphanes.
- Manovich, L. (2001). *The Language of New Media*. Cambridge, MA: MIT Press.
- Menkman, R. (2011). *Institute of Network Cultures | No. 04: The Glitch Moment(um)*. Amsterdam: Institute of Network Cultures. Accessed June 15, 2018. <http://networkcultures.org/blog/publication/no-04-the-glitch-momentum-rosa-menkman/>.
- Mersch, D. (2014). Sichtbarkeit/Sichtbarmachung. Was heißt 'Denken im Visuellen?', in F. Goppelsröder and M. Beck (Eds.). *Sichtbarkeiten 2: Präsentifizieren. Zeigen zwischen Körper, Bild und Sprache*. Berlin, Zurich: Diaphanes, pp. 19–71.
- Pazzini, K.-J. (2015). *Bildung vor Bildern. Kunst – Pädagogik – Psychoanalyse*. Bielefeld: Transcript Verlag.
- Ott, M. (2015). *Dividuationen. Theorien der Teilhabe*. Berlin: b_books.
- Perniola, M. (2009). *Über das Fühlen*. Berlin: Merve.
- Rothe, K. (2016) Medienökologie – Zu einer Ethik des Mediengebrauchs, in L. Sprenger (Ed.) *Medienökologien, Zeitschrift für Medienwissenschaft 14*, 46–57.

- Sterne, J. (2012). *MP3. The Meaning of a Format*. Durham, NC, London: Duke University Press.
- Stiegler, B. (2008). *Die Logik der Sorge. Verlust der Aufklärung durch die Technik und Medien*. Frankfurt am Main: Suhrkamp.
- Zahn, M. (2012). *Ästhetische Film-Bildung. Studien zur Medialität und Materialität filmischer Bildungsprozesse* (Theorie bilden). Bielefeld: Transcript Verlag.
- Zahn, M. (2015). Das Subjekt des Kinos, in B. Jörissen and T. Meyer (Eds.) *Subjekt Medium Bildung* (Medienbildung und Gesellschaft 28). Wiesbaden: SpringerVS, pp. 77–92.
- Baecker, D. (2007). *Studien zur nächsten Gesellschaft*. Frankfurt am Main: Suhrkamp.
- Baecker, D. (2008). Intellektuelle I, in D. Baecker, *Nie wieder Vernunft. Kleinere Beiträge zur Sozialkunde*. Heidelberg: Carl-Auer Verlag, pp. 74–81.
- Baecker, D. (2011). 16 Thesen zur nächsten Gesellschaft. *Revue für postheroisches Management* 9, 9–11.
- Baecker, D. and Hedinger, J.M. (2012). Thesen zur nächsten Kunst. *Schweizer Monat* 993, February. Accessed July 13, 2012: <http://www.schweizermonat.ch/artikel/the-sen-zur-naechsten-kunst>.
- Barlow, J.P (1996). *A Declaration of the Independence of Cyberspace*. Accessed March 28, 2013. http://w2.eff.org/Censorship/Internet_censorship_bills/barlow_0296.declaration
- Belting, H. and Buddensieg, A. (2013). Zeitgenossenschaft als Axiom von Kunst im Zeitalter der Globalisierung. *Kunstforum International* 220(March–April), 61–69.
- Bourriaud, N. (2002). *Postproduction. Culture as Screenplay: How Art Reprograms the World*. New York, NY: Lucas & Sternberg.
- Bourriaud, N. (2009a). *Altermodern Explained: Manifesto, Tate Gallery London 2009*. Accessed April 22, 2013. <http://www.tate.org.uk/whats-on/tate-britain/exhibition/altermodern/explain-altermodern/altermodern-explainedmanifesto>.
- Bourriaud, N. (2009b). *Radikant*. Berlin: Merve.
- Cahan, S. and Kocur, Z. (Eds.) (1996). *Contemporary Art and Multicultural Education*. New York, NY, London: Routledge.
- Christov-Bakargiev, C. (2011). Brief an einen Freund/Letter to a friend. Ostfildern-Ruit: Hatje Cantz (Documenta 13. 100 Notizen /100 Gedanken).
- Christov-Bakargiev, C. and Hohmann, S. (2012). Vielleicht gibt es Kunst gar nicht. Interview mit der Chefkuratorin der Documenta12. *Monopol. Magazin für Kunst und Leben* 6, 60–63.
- Czerski, P. (2012). *We, the Web Kids*. Accessed February 22, 2012 <http://boingboing.net/2012/02/22/web-kids-manifesto>.
- Debray, R. (1995). *Vie et mort l'image. Une histoire du regard en Occident*. Paris: Editions Gallimard.
- Debray, R. (1999). *Jenseits der Bilder. Eine Geschichte der Bildbetrachtung im Abendland*, Rodenbach: Avinus.
- Debray, R. (2004). Für eine Mediologie, in C. Pias, J. Vogl, and L. Engell (Eds.) *Kursbuch Medienkultur. Die maßgeblichen Theorien von Brecht bis Baudrillard*. Stuttgart: DVA, pp. 67–75.
- Düillo, T. and Liebl, F. (Eds.) (2005). *Cultural Hacking. Kunst des strategischen Handelns*. Vienna, New York, NY: Springer.
- Hubig, C. (1983). 'Genie' – Typus oder Original? Vom Paradigma der Kreativität zum Kult des Individuums, in E. Wischer (Ed.) *Aufklärung und Romantik. 1700–1830*. Berlin: Propyläen, pp. 187–210.
- Kant, I. (1790). *Kritik der Urteilskraft*. Stuttgart: Reclam 1963.

- Lévy, P. (2008). Menschliche Kollektivintelligenz bedeutet Symbolische Kollektivintelligenz. Ein Gespräch mit Klaus Neumann-Braun. *Kunstforum international Bd. 190*, 72–75.
- Lucarelli, F. (2012). *Documenta 13: Czechoslovak Radio 1968*, by Tamas St. Turba. Accessed April, 22, 2013. <http://socks-studio.com/2012/08/01/documenta-13-czechoslovak-radio-1968-by-tamas-st>.
- Mensvoort, K.V. (2013). *What is Next Nature?* Accessed April 22, 2013. <http://www.nextnature.net/about>.
- Mensvoort, K.V. and Grievink, H.-J. (2011). *Next Nature: Nature Changes Along With Us*. Barcelona, New York, NY: Actar.
- Meyer, T. (2010). Next Nature Mimesis, in D. Schuhmacher-Chilla, N. Ismail, and E. Kania (Eds.) *Image und Imagination*. Oberhausen: Athena, pp. 211–227.
- Meyer, T. (2014). Cultural Hacking als Kulturkritik?, in S. Baden, C. A. Bauer, and D. Hornuff (Eds.) *Formen der Kulturkritik*. Munich: Fink, pp. 157–176.
- Reckwitz, A. (2012). Der Künstlermythos zwischen Exklusivfigur und Generalisierungstendenzen, in C. Menke and J. Rebentisch (Eds.) *Kreation und Depression. Freiheit im gegenwärtigen Kapitalismus*. Berlin: Kadmos, pp. 98–117.
- Saltz, J. (2012a). Eleven Things That Struck, Irked, or Awed Me at Documenta 13. *Vulture on 15.6.2012*. Accessed April 22, 2013. <http://www.vulture.com/2012/06/documenta-13-review.html>.
- Saltz, J. (2012b). A Glimpse of Art's Future at Documenta. *Vulture on 16.6.2012*. Accessed April 22, 2013. <http://www.vulture.com/2012/06/documenta-13-review.html>.
- Seemann, M. (2013). *ctrl-Verlust*. Accessed April 22, 2013. <http://www.ctrl-verlust.net/glossar/kontrollverlust>.
- Aumont, J. (2012). *Que reste-t-il du cinéma?* Paris: Vrin.
- Avezù, G. (2016). Intersections between Showing and Concealment in the History of the Concept of Screen, in D. Chateau and J. Moure (Eds.) *Screens*. Amsterdam: Amsterdam University Press.
- Battro, A.M. and Denham, P.J. (2010). *Verso un'intelligenza digitale*. Milano: Ledizioni.
- Bazin, A. (2005). *What is Cinema?* Berkeley, CA, Los Angeles, CA, London: University of California Press.
- Bellour, R. (2012). *La querelle des dispositifs: Cinéma, installations, expositions*. Paris: POL.
- Benjamin, W. (2008). The Work of Art in the Age of Its Technological Reproducibility. in M.W. Jennings, B. Doherty, and T.Y. Levin (Eds.) *The Work of Art in the Age of Its Technological Reproducibility, and Other Writings on Media*. Cambridge, MA: Harvard University Press.
- Bennett, S., Maton, K., and Kervin, L. (2008). The 'Digital Natives' Debate: A critical review of the evidence. *British Journal of Educational Technology* 39(5), 775–786.
- Berry, D. and Dieter, M. (Eds.) (2015). *Postdigital Aesthetics. Art, Computation and Design*. Basingstoke: Palgrave Macmillan.
- Biserna, E., Dubois, P., and Monvoisin, F. (Eds.) (2010). *Extended cinema. Le cinéma gagne du terrain*. Pasion di Prato: Campanotto.
- Bodini, J. and Carbone M. (Eds.) (2016). *Voir selon les écrans, penser selon les écrans*. Paris: Mimesis.
- Bodini, J., Carbone M., and Dalmaso A.C. (Eds.) (2016). *Vivre par(mi) les écrans*. Dijon: Les presses du reel.
- Bodini, J., Carbone M., and Dalmaso A.C. (Eds.) (2018). *Des pouvoirs des écrans*. Paris: Mimesis.

- Bollmer, G. and Guinness K. (2017). Phenomenology for the Selfie. *Cultural Politics* 13(2), 156–176.
- Bolter, J.D. and Grusin, R.A. (1999). *Remediation: Understanding New Media*. Cambridge, MA: MIT Press.
- Borradori, G. (2018). De selfie en selfie. L'espace confessionnel du soi narrable. In J. Bodini, M. Carbone, and A.C. Dalmasso (Eds.). (2018). *Des pouvoirs des écrans*. Paris: Mimesis, pp. 221–237.
- Butler, J. (1990). *Gender Trouble*. New York, NY: Routledge.
- Butler, J. (1993). *Bodies that matter*. New York, NY: Routledge.
- Caccia, A. and Dalmasso, A.C. (2014). Intervista a Andrea Caccia. *Vedozero* in condotta. Interrogare la scuola e il futuro del cinema. *Materiali di Estetica* 1, 'Pensare nella caverna. Incontri tra cinema e filosofia,' 193–204.
- Carbone, M. (2016a). *Philosophie-écrans*. Paris: Vrin.
- Carbone, M. (2016b). Thematizing the 'Arche-Screen' through Its Variation,. In D. Chateau and J. Moure (Eds.) *Screens*. Amsterdam: Amsterdam University Press.
- Casetti, F. (2012). The Relocation of Cinema. *NECSUS*. Autumn2012 'Tangibility'.
- Casetti, F. (2015). *The Lumière Galaxy: Seven Key Words for the Cinema to Come*. New York, NY: Columbia University Press.
- Chateau, D. and Moure J. (Eds.) (2016). *Screens*. Amsterdam: Amsterdam University Press.
- Del Porto, D. (2016). Napoli, gara di selfie all'uscita da scuola. Ucciso un ragazzo mando la foto a casa. *La Repubblica*. http://napoli.repubblica.it/cronaca/2016/02/20/news/napoli_gara_di_selfie_all_uscita_da_scuola_ucciso_un_ragazzo_mando_la_foto_a_casa_-133829397/.
- Deleuze, G. (2004). *Difference and Repetition*. London: Bloomsbury.
- Eckel, J., Ruchatz, J., and Wirth, S. (Eds.) (2018). *Exploring the Selfie. Historical, Theoretical, and Analytical Approaches to Digital Self-Photography*. Basingstoke: Palgrave Macmillan.
- Eugeni, R. (2012). First Person Shot. New forms of subjectivity between cinema and intermedia networks. *Analisi, Quaderns de Comunicació i Cultura. Audiovisual* 2.0, 19–31.
- Ferri, P. (2011). *Nativi digitali*. Milano: Mondadori.
- Floridi L. (Ed.) (2014). *The Onlife Manifesto: Being Human in a Hyperconnected Era*. New York, NY: Springer.
- Foucault, M. (2012). *Discipline and Punish: The Birth of the Prison*. New York, NY: Knopf Doubleday Publishing Group.
- Fox, J. and Rooney, M.C. (2015). The Dark Triad and Trait of Self-Objectification as Predictors of Men's Use and Self-Presentation Behaviors on Social Networking Sites. *Personality and Individual Differences* 76, 161–165.
- Francastel, P. (1983). *L'image, la vision et l'imagination, L'objet filmique et l'objet plastique*. Paris: Denoël-Gonthier.
- Friedberg, A. (1994). *Window Shopping. Cinema and the Postmodern*. Berkeley, CA, Los Angeles, CA, London: University of California Press.
- Gaudreault, A. and Marion, P. (2015). *The End of Cinema? A Medium in Crisis in the Digital Age*. New York, NY: Columbia University Press.
- Grusin, R. (2010). *Premediation: Affect and Mediality After 9/11*. London: Palgrave Macmillan.
- Jaudon, R., Marchiori, D., and Vancheri, L. (Eds.) (2015). *Revue Écrans* 3, 'Expanded Cinéma'. Paris: Classiques Garnier.

- McCain, J., Borg, Z.G., Rothenberg, A.H., Churillo, K.M., Weiler, P., and Campbell, W.K. (2016). Personality and Selfies: Narcissism and the dark triad. *Computers in Human Behavior* 64, 126–133.
- Meirieu, P., Kambouchner, D., and Stiegler, B. (2012). *L'école, le numérique et la société qui vient*. Paris: Fayard.
- Mitchell, W.J.T. (2015). Screening Nature (and the Nature of the Screen). *New Review of Film and Television Studies* 13(3), 231–246.
- Monteiro, S. (2018) *The Screen Media Reader: Culture, Theory, Practice*. London: Bloomsbury.
- Pinel, V. (2001). *Le montage: l'espace et le temps du film*. Paris: Cahiers du cinéma.
- Prensky, M. (2011). Digital Natives, Digital Immigrants. *On the Horizon* 5.
- Rivoltella, P.C. (2011). *Neurodidattica. Insegnare al cervello che apprende*. Milano: Raffaello Cortina.
- Small, G. (2008). *iBrain: Surviving the Technological Alteration of the Modern Mind*. New York, NY: HarperCollins.
- Sobchack, V. (1991). *The Address of the Eye. A Phenomenology of Film Experience*. Princeton, NJ: Princeton University Press.
- Sobchack, V. (2004). *Carnal Thoughts. Embodiment and Moving Image Culture*. Berkeley, CA, Los Angeles, CA, London: University of California Press.
- Sobchack, V. (2016). The Active Eye (Revisited): Toward a phenomenology of cinematic movement. *Studia Phaenomenologica* 16, 63–90.
- Sorokowska, A., Oleszkiewicz, A., Frackowiak, T., Pisanski, K., Chmiel, A., and Sorokowski, P. (Eds.) (2016). Selfies and Personality: Who posts self-portrait photographs? *Personality and Individual Differences* 90, 119–123.
- Tisseron, S. (2017). 3–6–9–12. *Apprivoiser les écrans et grandir*. Paris: Erès.
- Tisseron, S., Virole, B., Givre, P., Tordo, F., and Triclot, M. (Eds.) (2013). *Subjectivation et empathie dans les mondes numériques*. Paris: Dunod.
- Verhoeff, N. (2012). *Mobile Screens. The Visual Regime of Navigation*. Amsterdam: Amsterdam University Press.
- Weiser, E.B. (2015). #Me: Narcissism and its facets as predictors of selfie-posing frequency. *Personality and Individual Differences* 86, 477–481.
- Youngblood, G. (1970). *Expanded Cinema*. New York, NY: Dutton.
- Agamben, G. (2017). *The Fire and the Tale*. Stanford, CA: Stanford University Press.
- Berry, D.M. (2016). The Post-Archival Constellation: The archive under the technical conditions of computational media, in Blom, I., Røssaak, E., and Bossom, F. (Eds) *Archive*. Accessed January 9, 2018. <https://www.francesbossom.com/single-post/2017/07/01/Archive>.
- Bossom, F. (Ed.) (2017). *Archive*. Accessed January 9, 2018. <https://www.francesbossom.com/single-post/2017/07/01/Archive>.
- Brown, N.M., Mendenhall, R., Black, M.L., Van Moer, M., Zerai, A., and Flynn, K. (2016). Mechanized Margin to Digitized Center: Black feminism's contributions to combatting erasure within the digital humanities. *International Journal of Humanities and Arts Computing* 10(1): 110–125.
- Cvetkovich, A. (2003). *An Archive of Feelings: Trauma, Sexuality, and Lesbian Public Cultures*. Durham, NC: Duke University Press.
- Day, R.E. (2014). *Indexing It All: The Subject in the Age of Documentation, Information, and Data*. Cambridge, MA: MIT Press.

- Dencik, L., Hintz, A., and Cable, J. (2016). Towards Data Justice? The ambiguity of anti-surveillance resistance in political activism. *Big Data & Society* 3(2). 1–12.
- Derrida, J. and Stiegler, B. (2002). *Echographies of Television*, translated by Jennifer Bajorek. Cambridge: Polity.
- do Mar Pereira, M. (2017). *Power, Knowledge and Feminist Scholarship: An Ethnography of Academia*. Abingdon: Routledge.
- Emejulu, A. (2014). Towards a Radical Digital Citizenship. Accessed January 9, 2018. <http://online.education.ed.ac.uk/showcase/towards-radical-digital-citizenship>.
- Evens, A. (2015). *Logic of the Digital*. London: Bloomsbury.
- Flinn, A. (2010). An Attack on Professionalism and Scholarship? Democratising archives and the production of knowledge. *Ariadne* 62. Accessed May 11, 2017. <http://www.ariadne.ac.uk/issue62/flinn>.
- Flusser, V. (2011). *Does Writing Have a Future?* Minneapolis, MN: University of Minnesota Press.
- Freer, J. (1986). Feminist Archive: Explanatory notes by the founder, Feminist Archive South DM2123/1/Archive boxes 68.
- Gruffydd Jones, B. (2017). Comrade, Committed, and Conscious: The anticolonial archive speaks to our times, in El-Malik, S. and Kamola, I.A. (Eds.) *Politics of African Anticolonial Archive*. London: Rowman Littlefield International, pp. 57–83.
- Hui, Y. (2016). *On the Existence of Digital Objects*. Minneapolis, MN: Minnesota University Press.
- Lean, T. (2016). *Electronic Dreams: How 1980s Britain Learned to Love the Computer Hardcover*. London: Bloomsbury.
- Leslie, E. (2017). Acts of Handwriting, in Hiller H. and Treister S., (Eds.) *Monica Ross: Ethical Actions A Critical Fine Art Practice*. Berlin: Sternberg Press, pp. 42–52.
- Ross, D. (2013). Pharmacology and Critique after Deconstruction, in Howells, C. and Moore, G. (Eds.) *Stiegler and Technics*. Edinburgh: Edinburgh University Press, pp. 243–259.
- Scott, J.W. (Ed.) (2008). *Women's Studies on the Edge*. Durham, NC: Duke University Press.
- Stiegler, B. (2008). *Technics and Time, 2: Disorientation*, translated by Stephen Barker. Stanford, CA: Stanford University Press.
- Stiegler, B. (2010). *Taking Care of Youth and the Generations*, translated by Stephen Barker. Stanford, CA: Stanford University Press.
- Stiegler, B. (2011). Distrust and the Pharmacology of Transformational Technologies, translated by Daniel Ross. In Zülsdorf, T., Coenen, C., Ferrari, A., Fiedeler, U., Milburn, C., and Wienroth, M. (Eds.) *Quantum Engagements*. Heidelberg: AKA Verlag, pp. 27–30.
- Tenen, D. (2017). *Plain Text: The Poetics of Computation*. Stanford, CA: Stanford University Press.
- Vriend, T. (2009). It's a Women's World in the Women's Thesaurus: On the history, development and use of the (European) Women's Thesaurus, in Fatma Türe D. and Talay Keşoğlu, B. (Eds.) *Women's Memory: The Problem of Sources: 20th Anniversary Symposium of the Women's Library and Information Centre Foundation*. Istanbul: Kadir Has University, pp. 1–12.
- Withers, D. (2015). *Feminism, Digital Culture and the Politics of Transmission: Theory, Practice and Cultural Heritage*. London: Rowman Littlefield International.
- Withers, D. (2016). Meta-Data Diaries: Collective annotation. Workshop given at the Centre for Contemporary Arts, Glasgow. <http://www.cca-glasgow.com/programme/invisible-knowledge-metadata-diaries>.

- Withers, D. (2018). Meta-Data Diaries 1: The Feminist Archive, in Johansson K.M., (Ed.) *Inscription*. Gothenburg: Regional State Archives, pp. 177–204.
- Barber, M., Donnelly, K., and Rizvi, S. (2013). *An Avalanche Is Coming: Higher Education and the Revolution Ahead*. London: Institute for Public Policy Research.
- Bussolini, J. (2010). What Is a Dispositive? *Foucault Studies* 10, 85–107.
- Coursera. (2018). Get started at Coursera (blog post) accessed online, October 5, 2018. <https://groups.google.com/forum/#!topic/me-heat-power-2014-15/wsyc4LwFLA8>
- Decoster, P.-J. (2016). *From Cinema Education to the Omnipresence of Digital Screens. Challenging the Assumptions in View of Educational Experiences*. Unpublished dissertation, Gent University.
- EDATU, Erasmus+. (2016). Output5 Score 2020. Instructional design models for different types and settings of MOOCs. Accessed October 5, 2018. https://oerknowledgecloud.org/sites/oerknowledgecloud.org/files/O5-Instructional_design_models_for_different_types_and_settings_of_MOOCs.pdf.
- European Commission. (2013). Opening up Education. Innovative teaching and learning for all through new technologies and open educational resources. Communication from the Commissions (COM 2013, 654, final), Brussels: European Commission.
- Flusser, V. (2011). *Into the Universe of Technical Images*. Minneapolis, MN, London: University of Minnesota Press.
- Groys, B. (1997). *Logik der Sammlung, Am Ende des musealen Zeitalters*. München, Vienna: Carl Hanser Verlag.
- Haggard, S. (2013). *The Maturing of the MOOC: Literature Review of Massive Open Online Courses and Other Forms of Online Distance Learning* (BIS Research Paper No. 130). London: Department for Business, Innovation and Skills. Accessed May 5, 2018. http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/240193/13-1173-maturing-of-themooc.pdf.
- Hetherington, K. (2011). Foucault, the Museum and the SDiagram. Accessed May 5, 2018. http://oro.open.ac.uk/29709/1/Foucault_the_Museum_and_the_Diagram_v611.pdf
- Illich, I. (1996). *Text and University. On the Idea and History of a Unique Institution*. Accessed May 5, 2018: http://www.davidtinapple.com/illich/1991_text_and_university.PDF.
- Ingold, T. (2015). *The Life of Lines*. London, New York, NY: Routledge.
- Koumi, J. (2006). *Designing Video and Multimedia for Open and Flexible Learning*. Oxford: Routledge.
- Knox, J. (2018). Beyond the ‘C’ and the ‘X’: Learning with algorithms in massive open online courses (MOOCs). *International Review of Education* 6(2), 161–178.
- Latour, B. (2005). *Reassembling the Social. An Introduction in Actor Network Theory*. Oxford: Oxford University Press.
- Lewis, T. (2012). Rousseau and the Fable. Rethinking the fabulous nature of educational philosophy. *Educational Theory* 12(3), 323–341.
- Lilley, S. (2001). The Language of Strategy, in Westwood, R. and Linstead, S. (Eds.) *The Language of Organization*. London: Sage.
- Manovich, L. (2001). *The Language of New Media*. Cambridge, MA: MIT Press.
- Manovich, L. (2010). *What Is Visualisation?* Accessed April 10, 2017. http://manovich.net/content/04-projects/064-what-is-visualization/61_article_2010.pdf.
- Marin, L., Masschelein, J. and Simons, M. (2018). Page, Text and Screen in the University: Revisiting the Illich hypothesis. *Educational Philosophy and Theory* 50(1), 49–60.

- Masschelein, J. and Simons, M. (2011). *Universitas Magistrorum et scholarium: A short history of profanation*, in Decuyper, M., Vlieghe, J., Simons, M., and Masschelein, J. (Eds.) *Curating the European University*. Leuven: University Press, pp. 81–89.
- Masschelein, J. and Simons, M. (2013). *In Defence of the School. A Public Issue*, translated by J. McMartin. Leuven: E-ducation, Culture & Society Publishers.
- Mazoue, J.-G. (2013). *The MOOC Model. Challenging Traditional Education*. Accessed May 5, 2018. <https://er.educause.edu/articles/2013/1/the-mooc-model-challenging-traditional-education>.
- Readings, B. (2011). *The University in Ruins*. Cambridge, MA: Harvard University Press.
- Rogoff, I. (2006). *Academy as Potentiality*, in Nollert, A. and Rogoff, I. (Eds.) *A.C.A. D.E.M.Y.*. Frankfurt am Main: Revolver, pp. 13–20.
- Shirky, C. (2012). *Napster, Udacity, and the Academy*. Accessed May 5 2018. <http://www.shirky.com/weblog/2012/11/napster-udacity-and-the-academy>.
- Stiegler, B. (2013). *The Aufklärung in the Age of Philosophical Engineering*, in Hildebrandt, M., O'Hara, K., and Waidner, M. (Eds.) *Digital Enlightenment Yearbook 2013*, translated by Daniel Ross. Amsterdam: IOS Press.
- Storme, T., Vansieleghem, N., Devleminck, S., Masschelein, J., and Simons, M. (2016). *The Emerging Pedagogy of MOOCs: The educational design of technology and practices of study*. *Journal of Computers in Education*. Advanced publication. <http://doi.org/10.1007/s40692-016-0070-5>.
- Tseng, S.F., Tsao, Y.-W., Yu, L.-C., Chan, C.-L., and Lai, R. (2016). *Who Will Pass? Analyzing learner behaviors in MOOCs*. Research and practice in technology enhanced learning. *Research and Practice in Technology Enhanced Learning*, 2–11. Accessed July 5, 2018. <https://telrp.springeropen.com/track/pdf/10.1186/s41039-016-0033-5>.
- Vlieghe, J. (2015). *Traditional and Digital Literacy. The literacy hypothesis, technologies of reading and writing, and the 'grammatized' body*. *Ethics and Education* 10(2), 209–226.
- Warrington Newsroom. (2018). *Making Learning More Personal*. Accessed October 25, 2018. <https://news.warrington.ufl.edu/faculty-and-research/making-learning-more-personal/>.
- Arendt, H. (1961). *Between Past and Future. Six Exercises in Political Thought*. New York, NY: Viking Press.
- Baudrillard, J. (1995). *Simulacra and Simulation*, translated by Sheila Faria Glaser. Michigan, MN: University of Michigan Press.
- Baudrillard, J. (2002). *The Spirit of Terrorism*, in Berberich, F. (Ed.) *Der Schock des 11. September und das Geheimnis des Anderen – Eine Dokumentation*. Berlin: Haus am Lützowplatz/Lette International, pp. 323–335.
- Buck, M.F. (2017). *Gamification of Learning and Teaching in Schools – A Critical Stance*. *Seminar.Net*, 13(1). Accessed <https://journals.hioa.no/index.php/seminar/article/view/2325>.
- Derrida, J. (1987). *The Truth in Painting*, translated by Geoff Bennington and Ian McLeod. Chicago, IL, London: University of Chicago Press.
- Drucker, J. (2014). *Graphesis. Visual Forms of Knowledge Production*. Cambridge, MA, London: Harvard University Press.
- Heidegger, M. (1966). *Discourse on Thinking*. (Translation of *Gelassenheit* by M. Anderson and E. Hans Freund.) New York, NY: Harper & Row.
- Heidegger, M. (1977). *The Question Concerning Technology and Other Essays*, translated and with an Introduction by William Lovitt. New York, London: Garland Publishing, Inc.

- Hesmondhalgh, D. and Meier, L.M. (2018). What the Digitalisation of Music Tells us about Capitalism, Culture and the Power of the Information Technology Sector. *Information, Communication & Society* 21(11), 1555–1570.
- Kalimtzis, K. (2018). *An Inquiry into the Philosophical Concept of Scholè. Leisure as a Political End*. London, New York, NY: Bloomsbury Academic.
- Kant, I. (1987) (1790). *Critique of Judgment*, translated by Werner S. Pluhar. Indianapolis, IN, Cambridge: Hackett Publishing Company.
- Kellner, D. (2015). Jean Baudrillard, in Zalta, E.N. (Ed.) *The Stanford Encyclopedia of Philosophy*. <https://plato.stanford.edu/archives/win2015/entries/ baudrillard/>.
- Krauss, R. (2004). Poststructuralism and Deconstruction, in Foster, H., Krauss, R., Bois, Y.-A., and Buchloh, B.H.D. (Eds.) *Art Since 1900*. London: Thames & Hudson, pp. 40–48.
- Liotard, J.-F. (1984) (1979). *The Postmodern Condition: A Report on Knowledge*, translated by Bennington and Massumi. Manchester: Manchester University Press.
- Masschelein, J. and Simons, M. (2013). *In Defence of the School. A Public Issue*, translated by Jack Mc Martin. Leuven: E-ducation, Culture & Society Publishers.
- McLuhan, M. (2003). *Understanding Media. The Extensions of Man*. (Critical edition, edited by W. Terrence Gordon.) Corte Madera: Gingko Press.
- Nancy, J.-L. (1997). *Technique du présent: essai sur On Kawara*. Villeurbanne: Nouveau Musée/Institut d'Art Contemporain.
- Nancy, J.-L. and Barrau, A. (2015). *What's These Worlds Coming To?*, translated by Travis Holloway and Flor Méchain. New York, NY: Fordham University Press.
- Shiner, L. (2001). *The Invention of Art. A Cultural History*. Chicago, IL, London: University of Chicago Press.
- Smith, T., Enwezor, O., and Condee, N. (Eds.) (2008). *Antinomies of Art and Culture. Modernity, Postmodernity, Contemporaneity*. Durham, NC, London: Duke University Press.
- Stiegler, B. (1998) (1994). *Technics and Time, 1*, translated by Beardsworth and Collins. Stanford, CA: Stanford University Press.
- Verbeek, P.-P. (2005). *What Things Do: Philosophical Reflections on Technology, Agency and Design*, translated by Robert P. Crease. Philadelphia, PA: Pennsylvania State University Press.
- Verbeek, P.-P. (2006). Materializing Morality: Design Ethics and Technological Mediation. *Science, Technology & Human Values* 31(3), 361–380.
- Verbeek, P.-P. (2012). *Politiek in het geding. Over kunst en de democratisering van de dingen*. *Open* 24, 18–29.
- Berry, D.M. and Dieter, M. (Eds.) (2015). *Postdigital Aesthetics. Art, Computation and Design*. Basingstoke: Palgrave Macmillan.
- Cavell, S. (1981). *Pursuits of Happiness; The Hollywood Comedy of Remarriage*. Cambridge, MA: Harvard University Press.
- Claes, G.J. and Debuysere, S. (2018) *Wang Bing. Filming a Land in Flux*. Amsterdam: Graficon, NV.
- Cramer, F. (2015). What Is Post-Digital? *APRJA*. Accessed February 19, 2019. <http://www.aprja.net/what-is-post-digital>.
- Frank, J. (2013). The Claims of Documentary: Expanding the educational significance of documentary film. *Educational Philosophy and Theory* 45(10), 1018–1027.
- Guarneri, M. (2015) *Shadows of the Opus Magnum: Wang Bing's 'Father and sons'*. Accessed February 19, 2019. <https://mubi.com/nl/notebook/posts/shadows-of-the-opus-magnum-wang-bings-father-and-sons>.

- Stiegler, B. (2009). The Carnival of the New Screen: From hegemony to isonomy, in Pelle, S. and Vondereau, P. (Eds.) *The YouTube Reader*. Vilnius: Logitopas, pp. 40–59.
- Wyns, Q. and Driesen, M. (2018). Vier camerabewegingen. De arme mise en scène van Wang Bing. *Sabzian*. Accessed February 19, 2019. <https://www.sabzian.be/article/vier-camerabewegingen>.