

Feminist Interventions in Participatory Media

Pedagogy, Publics, Practice

**Edited by Lauren S. Berliner
and Ron Krabill**



Routledge
Taylor & Francis Group

LONDON AND NEW YORK

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

and by Routledge
711 Third Avenue, New York, NY 10017

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

© 2019 selection and editorial matter, Lauren S. Berliner and Ron Krabill; individual chapters, the contributors

The right of Lauren S. Berliner and Ron Krabill 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

A catalog record for this book has been requested

ISBN: 978-0-8153-7580-7 (hbk)

ISBN: 978-1-351-23898-4 (ebk)

Typeset in Times New Roman
by Apex CoVantage, LLC

Contents

| | |
|---|-----|
| <i>List of figures</i> | ix |
| <i>List of contributors</i> | x |
| <i>Acknowledgments</i> | xii |
| | |
| Introduction. We have the tools we've been waiting for: centering feminist media pedagogies in a time of uncertainty | 1 |
| LAUREN S. BERLINER AND RON KRABILL | |
| | |
| 1 Intervening in Wikipedia: feminist inquiries and opportunities | 18 |
| MONIKA SENGUL-JONES | |
| | |
| 2 Is a feminist lens enough? The challenges of “going mobile” in an intersectional world | 28 |
| NANCY CHANG AND LAURA E. RATTNER | |
| | |
| 3 Feminist perspectives and mobile culture(s): power and participation in girls' digital video making communities | 34 |
| NEGIN DAHYA AND W.E. KING | |
| | |
| 4 Pop-Up Public: weaving feminist participatory media into public radio | 43 |
| JESIKAH MARIA ROSS | |
| | |
| 5 Teaching across difference through critical media production | 52 |
| CARMEN GONZALEZ | |

| | | |
|----------|---|-----------|
| 6 | Immediacy, hypermediacy, and the college campus: using augmented reality for social critique | 60 |
| | LEAH SHAFER AND ISKANDAR ZULKARNAIN | |
| 7 | On feminist collaboration, digital media, and affect | 70 |
| | KATHLEEN WOODWARD | |
| | <i>Index</i> | 91 |

Figures

| | | |
|-----|---|----|
| 4.1 | Concept drawing for <i>Pop-Up Public</i> | 45 |
| 7.1 | Beverly Henry deconstructing the flag in “Pledge” | 77 |

7 On feminist collaboration, digital media, and affect

Kathleen Woodward

“Collaboration” has emerged as a keyword in higher education today, not so much supplanting the decades-long emphasis on “interdisciplinarity” as absorbing it. Recently collaboration has been enthusiastically endorsed by professional disciplinary societies in the humanities – the Modern Language Association and the American Historical Association, among them – as a critical skill sought by employers in virtually all sectors. I applaud this recommendation. But one of the unfortunate if unintended consequences of these professional calls for collaboration has been a one-dimensional instrumentalization of collaboration, flattening the ideals it seems to promise.¹ In contrast, I find that many students, faculty, and members of the community are inspired by practices of collaboration as it is embodied in feminist principles of pedagogy, research, and engagement, with collaboration understood as essential to our work in the classroom and beyond it, offering ways of acting together that can be deeply satisfying and productive of new knowledge.

Why has the emphasis on collaboration emerged at this moment? What might be its relationship to digital media? What has galvanized this paradigm shift in the humanities from a focus on the single teacher, student, and scholar working on essays and monographs to collaboration, both in general and in cultural studies and digital media studies in particular? In what follows I consider these questions, discuss three inspiring examples of feminist collaboration involving digital media, and suggest, following the impulse of feminist pedagogy in which embodiment is key, that low-tech, as opposed to high-tech, has much to offer us, including easing barriers to participation and facilitating repair, among many other things. Finally, I consider the key role that affect in its many manifestations plays in the creation, purpose, and sustainability of these three digital projects, arguing that the public feelings catalyzed by them in and of themselves constitute important contributions to our worlds, our publics.

Why are we seeing such a widespread emphasis on the importance of collaboration in the academy today? I wish I could claim it is in great part the effect of the feminist focus on collaboration. That would, however, be naïve. But I can point with confidence to the hegemony of the model of research in the sciences, engineering, and related domains as a major reason. Yet, more pertinent for my purposes in a volume devoted to participatory media is that in the humanities and humanistic social sciences, digital technologies are invariably singled out as prime movers in enabling collaborative modes of scholarly inquiry and communication. A digital research project is heralded as by nature collaborative, requiring, for example, technologists, designers, project managers, and librarians in addition to scholars and hourly help. The predominant affect has been openly utopian.² As David Weinberger puts it in his provocative book *Too Big to Know*, many envision “collaborative castles” rising high “in the air” (2011, 173). But what is entailed by collaboration? We don’t so much discuss this question as default to the shorthand of numbers, as in: a single scholar equals a book (print and ebook), whereas a team, perhaps even a multitude (for crowdsourcing, for instance), is required for a digital project. If I may have recourse to an analogy, this way of thinking is additive, not intersectional.

Collaboration is also often defined in positive terms by reference to its supposed negative opposite – the single scholar, whom I have seen referred to as the isolated scholar, or, in one heavy-handed metaphor pervading a blog post in *The Chronicle of Higher Education*, as a solitary animal who prefers to stalk his prey alone.³ I do not accept this negative description of the single scholar, a figure that in any case does not exist in the real world. I also do not accept this stark duality; for if digital technologies enable collaboration, they also enable stand-alone work where before a team was required, with news reporting a case in point. And indeed communications theorist Manuel Castells has referred to Web 2.0 as enabling what he aptly calls mass-self-communication (2009, 70).

In naming collaboration as a good, we are implicitly invoking certain values. But digital technologies themselves do not inherently produce collaboration as a positive force any more than they are inherently democratic, as some have argued.⁴ If digital technologies enable collaboration in a positive vein, they also enable surveillance and deception. Collaboration, as we know, has two meanings: “the act of working together with one or more people to achieve something” and “the betrayal of others by working with an enemy” (Encarta Dictionary online). My point is that we need to articulate what is meaningful to us about collaboration as a practice, and to do so we need to look closely at particular practices themselves. What does collaboration produce that we value? Intellectually? Socially? Affectively? What is the deep structure of collaboration? In what follows, I regard collaboration

not in terms of the number of people necessary to launch and sustain a digital project – its paradigital dimensions, if you will – but rather in terms of the deep purpose and methods of feminists in the academy who are involved in collaborative digital projects. My touchstones are three inspiring projects in digital media by women, all of them animated by feminist principles and goals (pedagogical and otherwise), including the pursuit of social justice (as well as what I call “cultural justice”) in the context of structural inequities; the theoretical commitment to intersectionality; dedication to non-hierarchical and reciprocal relationships in the practice of teaching, scholarship, and the arts; and the creation of spaces for multiple voices to express themselves in dialogue with each other as well as spaces in which these voices can be heard by others. All three projects are expansively multivocal.

In addition, all three projects foreground the importance of relationships that are affective. In recent years scholarly work on the emotions, much of it feminist, has decisively called into question the dominant cultural narrative in the West that has constructed reason and emotion as antimonies, with reason claimed as the preferred term, figured as masculine, and emotion disparaged as feminine. Today many acknowledge – indeed, embrace – the understanding that emotions and feelings have a cognitive edge and should not be regarded as necessarily antithetical to thought and knowledge. In addition, it is recognized that the emotions are deeply social as well as individual, energies that circulate among us, possessing the force to draw us together – and also to divide us. Thus today, feminist pedagogy, with its focus on embodiment, at the level of both the individual and the social, often draws explicitly on the emotions and feelings as resources, both for understanding and as sources of strength in creating new models for pedagogy itself and in envisioning alternative futures. In sum, all three projects I consider here instantiate a feminist pedagogy, offering different models of the production of knowledge that are collaborative, with collaboration fundamentally underwritten not by hardware or software but rather animated by an ethos, by ideas and ideals that guide the work, and by relationships that are in great part affective:

- Sharon Daniel’s sobering and elegant *Public Secrets*, an activist art piece published online in 2007, with which I associate a radical optimism to create a subaltern counterpublic;
- *Women Who Rock: Making Scenes, Building Communities*, an ebullient large-scale popular music project initiated in 2011 and still ongoing at the University of Washington whose three major facets – pedagogical and curricular, community engaged, and archival – have been led by Michelle Habell-Pallán and Sonnet Retman, in collaboration with many students and members of the community, and constitute an enlivening ensemble of components, with which I associate the power of

a collective animated by the pursuit of cultural justice and buoyed by *convivencia*; and

- Anne Balsamo and Alexandra Juhasz’s exhilarating idea of creating a global network of women studying technology and feminism, an idea that quickly assumed the shape of FemTechNet, which sponsored its first course in higher education in the fall of 2013 under the title Dialogues in Feminism and Technology, a practice with which I associate what I call *distributed collaboration*, where distribution entails the *redistribution* of intellectual capital.

I could refer to many other digital media projects by women – Cathy Davidson, Kathleen Fitzpatrick, Julie Klein, Tara McPherson, and Bethany Nowviskie, to name a few, a pantheon of creative women in higher education in the US. But I trust that these three projects offer sites for speculation about the different forms feminist collaboration can take in tandem with digital media, broadly understood.

Collaboration as a cognate of a counterpublic

Public Secrets, by digital media artist and activist Sharon Daniel, first appeared in 2007 in the now-legendary online journal *Vectors* (its visionary co-founding editor is Tara McPherson). Focusing on incarcerated women in the Central California Women’s Facility in Chowchilla, the largest of such institutions in the United States, and brilliantly designed by Eric Loyer in collaboration with Daniel, *Public Secrets* constitutes a deep archive of the voices of these women behind bars. It is exemplary of a digital project that exists in a multi-modal open-access space where research and activism coincide, a new space where people can speak out and others can listen in.⁵ As Daniel says in voice-over,

There are secrets that are kept from the public and then there are “public secrets” – secrets that the public chooses to keep safe from itself . . . The public secret is an irresolvable internal contradiction between inside and outside, power and knowledge.

In *Public Secrets*, Sharon Daniel is *making public* what has remained a highly visible secret, where what is public and what is secret collapse into each other. Given the habit of Western thought of distinguishing the public from the private, it is striking that there is no distinction between the public and the private in a prison; there is only a perverted form of public space, a secretive public space. The website that is *Public Secrets* opens up that space to the public.

What form does collaboration take in *Public Secrets*? In a deeply collaborative spirit, Daniel seeks out the words and stories of these women. In and of itself, this was not easy. A ban on media in all of its facilities was imposed by California's Department of Corrections in 1993, forbidding face-to-face interviews and recording devices, among other things; Daniel was able to evade the ban by working with a human rights organization (she posed as a legal advocate, which in many respects she was!). In my mind's eye I see her speaking with these women separately, the imprisoned women divided from each other. Thus, on the one hand, collaboration *between* these imprisoned women is impossible. But the ethos of the documentary that is *Public Secrets* is participatory. Daniel creates an intimate public space, even if it is a space of *divided intimacy*, a precious space online where these women tell their stories of what literary critic Lauren Berlant has aptly called "the bad life."

In *Cruel Optimism*, Berlant tracks, in her words, "the emergence of a precarious public sphere, an intimate public of subjects who circulate scenarios of economic and intimate contingency and trade paradigms for how best to live on" (2011, 3). I see *Public Secrets* in this light, as an online public sphere where scenarios of injustice are circulated, an open space underwritten by a radical optimism in the hope that it, along with other projects, will help instantiate a subaltern counterpublic in the philosopher Nancy Fraser's sense.⁶ Thus, if collaboration between these imprisoned women is impossible (and while they are imprisoned they can't access the internet to see *Public Secrets*), on the other hand, collaboration is embodied in Daniel's witnessing of the experience of these women as well as in the piece that is *Public Secrets* itself – and in the dream of a new social order that subverts it. In her masterful 2011 essay "Collaborative Systems: Redefining Public Art," Daniel makes the important point that "when participants are allowed to contribute data to a system, it becomes a *collaborative system*" (74). Containing over six hundred recorded statements by 25 women behind bars, *Public Secrets* is such a collaborative system, with all of the women contributing to this important project understood as participants, creating a moving instance of participatory media.

I also see *Public Secrets* as a seminal experimental contribution to the emerging genre of the i-documentary. If the conventional documentary has come to assume the shape of a realist narrative with characters and a recognizable narrative arc – a story, in short – in *Public Secrets* we see no images of women behind bars, no rows of prison doors. Instead we hear and read their words in stylized rectangular black-and-blue and gray-and-white spaces bound by frames made of lines, shapes that open and close, that rise and fall, to the decisive sound of a gavel or the clang of a door closing shut.

Although Daniel characterizes her work as database-driven documentary, *Public Secrets* resists the binary logic of the database; and yet it is visually modular: affect accretes through accumulation. There is no overarching narrative, but a series of statements that literally abut up against each other on the space of the screen, expanding and contracting. But if there is no dominant narrative, the context is clear: we are witnessing the prison-industrial complex in action, one that is gendered, one where women are at risk of being reduced to bare life.

Daniel has memorably said that she understands her role as offering predominantly *context*, not content. In “Collaborative Systems,” she writes,

I see myself as a context provider, stretching the concept of artistic creation from making content to making context. My goal is to avoid representation – not to speak for others but to provide them with the means to speak for themselves, to speak and be heard. Context provision is about decentering – making multiple spaces – not telling a truth but truths in the plural.

(2011, 81)

In “Collaborative Systems,” Daniel characterizes her position in undertaking this work as sharing less with that of an ethnographer and more with that of an immigrant.⁷ Given the fundamental design trope of *Public Secrets* – its arresting patterns of rectangles – I think of her practice as *framing*. I thus understand Daniel’s method as one of *collaborative framing*, where framing includes critical thought on bare life and utopia as she draws on the work of social theorists Angela Davis, Giorgio Agamben, and Fredric Jameson, among others. In *Public Secrets*, Daniel puts the statements of the women behind bars in dialogue with these thinkers. It is an enactment of feminist pedagogy; the multiplicity of voices – personal and theoretical – combine in a non-hierarchical way to create what I will call a “critical feeling,” dismay stretching to outrage at the structural forces that underwrite such horrific inequities and injustices.

In Daniel’s work, collaboration has all-important epistemological and ethical dimensions, with the epistemological and the ethical intertwined. The shape of *Public Secrets* resonates with its method, framing the testimony of these women, allowing feeling and thought, including critical thought, to come together. Aesthetically innovative, *Public Secrets* is poetic and elegant in design and form as well as severe and somehow restrained. At the same time, *Public Secrets* is to a great extent vernacular in speech – direct and immediate, with the words of these women compelling our attention.

One of these women – African American Beverly Henry – is named by Daniel as the co-author of an eloquent eight-minute video portrait of Henry herself. Entitled *Pledge*, made after Henry was released from prison and six years after *Public Secrets* was published, *Pledge* (2013) exemplifies the foundational importance of collaboration – as a principle and as a practice – in Daniel’s work. For it is altogether clear that *Pledge* could only have been created in the wake of Beverly and Daniel having established over time an affective and reciprocal relationship of trust, a feeling intangible and all-important.

In *Pledge*, Beverly Henry, who was sentenced to 15 years for selling heroin to an undercover policeman for 20 dollars, speaks of her harrowing experiences in what I find to be a remarkably measured voice. What work did Henry perform in the Central California Women’s Facility? She sewed American flags, making just a little over half a dollar an hour (this is, as Daniel pointedly notes in an essay published in *Intelligent Agent*, a cutting example of *symbolic labor*). As Beverly Henry speaks, *she tears apart an American flag*, undoing its stitches, with thoughtful restraint (Figure 7.1). Her words – the text of an op-ed piece she wrote on the occasion of the 254th anniversary of the birth of Betsy Ross – are embroidered on the very product she made in prison.

This brings me to the question of affect. Daniel conceives of her work as an interface between viewers and the people who populate it, one she hopes will help engage the public in matters of punishment and crime, calling into question the conviction on the part of many that the carceral state – the imprisoning of *individuals* – provides a solution to structural social problems. For viewers of *Public Secrets*, the digital affordances of the journal *Vectors* allow us to create our own paths through the testimonies of these incarcerated women and the analysis of critical social theorists, in a sense collaborating with them; the custom platform has been designed with feminist (and other) theories of difference to, in the words of Tara McPherson, resist the “compartmentalized logics of dominant computation design by flattening out the hierarchical structures of platforms such as WordPress” (2014, 185).⁸ Thus, here interaction – as viewers, we are interactors – means something purposeful, not perfunctory, in relation to digital media.⁹ Earlier I mentioned that in *Public Secrets* affect accretes through accumulation. What affect? Of course, many different emotions could be named. But I would single out shame, in particular the powerful feminist understanding Berenice Fisher has given to shame within the women’s movement(s) as a social and shared emotion, a catalyst of moral agency. For Fisher, shame is shame not in relation to a wrongdoing but rather in relation to an ideal – a just society – that we have failed to achieve; feminist shame is in this sense



Figure 7.1 Beverly Henry deconstructing the flag in “Pledge,” courtesy of the artist

enabling, not paralyzing.¹⁰ I would add that with regard to *Pledge* I suspect Beverly Henry's dignity and strength stirs *admiration* in many if not most of its viewers, with admiration also serving, like feminist shame, as a profoundly political emotion.¹¹

Collaboration across sectors and media as *convivencia*

Women Who Rock is a spirited multi-year, ongoing public scholarship project at the University of Washington dedicated to making visible – and wonderfully audible – “the role of women and popular music in the creation of cultural scenes and social justice movements in the Americas,” in the words of collective members Michelle Habell-Pallán, Sonnet Retman, and Angelica Macklin, a doctoral student in Gender, Women & Sexuality Studies (2014, 1). *Women Who Rock* is exemplary for its collaborative work across multiple sites – the feminist undergraduate team-taught classroom, the conference table where shared mentoring workshops for graduate students with faculty and popular music critics from around the country take place,¹² the yearly film festival, the digital repository of research, and the annual flexible-format “unconference” at Seattle Center (a celebration of community arts, it is participant driven and, in 2018, is in its eighth year). Feedback loops among all these sites amplify the force of *Women Who Rock* and integrate its various components in multiple ways.

The ethos of collaboration characterizing this work is explicitly community-based, with these communities including performers, activists, undergraduates and graduate students, and scholars from the University of Washington as well as other sectors, including journalism and filmmaking. Collaboration is for them a keyword. But Habell-Pallán, Retman, Macklin, and Monica De La Torre also describe their way of working together as that of a *collective*, which, as we all know, is a demanding form of collaboration, one that requires working together closely, often intimately.¹³ Crucially, their work is buoyed by the platform and pulse that is popular music itself, sustained by the affective spirit of community, of *convivencia*, of working and building and performing together, binding women to each other through the co-creation of intellectual, pedagogical, and social spaces as well as live populist musical worlds that are multi-genre and multi-generational. A powerful kind of *public intimacy* is generated – and is scaled up, an affective antidote to the divisions wrought elsewhere. In particular, I love the multi-generational inflection of these musical worlds (I am smiling as I remember one panel at the conference in 2015 that was chaired by a 16-year-old and included women of various ages up to 80, with 8-year-old girls running up and down in the aisles of the crowded auditorium).

This public intimacy is both built through *convivencia* and creates *convivencia*, which carries with it the affective overtones of trust and vitality. Feeling alive and feeling a fundamental part of the social space – that is to say, belonging – are at stake. As described by Marisol Berríos-Miranda, Shannon Dudley, and Habell-Pallán, the co-authors of the splendid bilingual book *American Sabor: Latinos and Latinas in US Popular Music*, the idea of *convivencia* entails “the creation of social spaces where people can build personal and communal relationships” (2018, 287–289). In this context, the making of music is itself the sound of collaboration.

I am in great part emphasizing face-to-face collaboration; this is the primary way the project of *Women Who Rock* got its start. But from the beginning, digital documentation was part of its life – in fact, I would say a way of life; as the musician Alice Bag (aka Alicia “Bag” Velasquez) has insisted, “Unless you document your work, it’s as though it never existed.”¹⁴ The digital archive of video interviews with women who rock – among them, women who make music and who write about music – was launched in 2013 at the University of Washington Libraries and continues to grow. It is a focal point for generating more feedback loops as the stories of these women in popular music are told not only in face-to-face sites but reverberate across various media – in film, online publications that offer multi-modal platforms, print publications, and radio, developing an ever-growing network and inspiring other projects. In fact, the explicit vision of the archive is to serve as a catalyst for making scenes and for building communities, including communities in the classroom. As Habell-Pallán, Retman, and Macklin describe it, the archive “is a platform for documenting and fostering the relationships and networks that drive music scenes, social justice movements, collaborative research and writing, art making and more.”

I would add that it is an injustice at the level of culture that the contributions of women, especially Latinas, to US popular music – hip hop, rock, punk – remain woefully under-researched and under-documented. The University of Washington Libraries *Women Who Rock Oral History Archive* addresses this cultural injustice. The archive thus embodies the conviction that *cultural justice*, if I may coin a term, requires cultural representation as well as, importantly, broad-based participation in the making of that knowledge. I would further add that this online archive is an impressive example of an important trend in recent research where the creation of digital databases and archives is understood as a form of research itself, not simply as the basis or ground or foundation for research. Importantly, at the University of Washington much of this research has been undertaken by students in an undergraduate class team-taught by Habell-Pallán and Retman.

Distributed collaboration

My third inspiring example is FemTechNet, a widely distributed network of predominantly women academics devoted to the study of feminism and technology, with one of its key goals being the writing of women into the history of technology – in great part through the teaching of courses throughout North America and elsewhere. The brainchild of Alexandra Juhasz and Anne Balsamo, FemTechNet's first project was the imaginative and ambitious college-level course launched in the fall of 2013 under the rubric of Dialogues in Feminism and Technology. The course was taught at a host of places, called learning nodes, across the US in tandem with a common intellectual catalyst underwriting the different stagings of content and pedagogical approaches – a curated series of videotaped dialogues between women (among them, Lisa Nakamura, Kim Sawchuk, Wendy Chun, Lynn Hershman-Leeson, and Donna Haraway) on such topics as race, machines, systems, and infrastructure that were made available to everyone on the FemTechNet website.¹⁵ The learning nodes of that first course included Brown and Yale, Ohio State and Penn State, Colby College and Bowling Green, with some offering courses for credit and others creating workshops for self-directed learners. Thus was generated a national intellectual and pedagogical network – soon to be global – of local places connected by flows of feminist dialogues in action. FemTechNet has emerged as a collective; it is decentralized and horizontally organized.¹⁶

The design of what the FemTechNet network calls a DOCC, a distributed open collaborative course (DOCC), explicitly and purposively departs from the massive open online courses (MOOC) about which we heard so much for several frenzied years, with the latter's conventional broadcast model being the hierarchical transmission from the one (or two) to the many online. At the heart of Dialogues in Feminism and Technology are principles of feminist pedagogy, including putting the needs of learners first and placing an emphasis on dialogue, which we see expressed in the videos themselves, and on embodied relationships, that is, on-the-ground relationships between faculty (some 50% of the instructors already knew each other, others joined as they learned about the project by word of mouth), between faculty and students, and among the students at the different nodes. Face-to-face learning and teaching are critical to the DOCC.¹⁷

What form does collaboration take? The notion of distribution itself is key (in focusing on distribution, I intend a resonance with today's profoundly undemocratic distribution of economic goods around the globe). On the one hand, collaboration is literally distributed geographically; this is the compelling surface structure of collaboration of the project. I turn

to an analogy. Distributed cognition, in brief, is the theory that the process of cognition takes place in an environment that is social rather than being bound to the psychological individual. Analogously, in this distributed online collaborative course, collaboration is scaled up across nodes, not bound to a single place; it is distributed, lending it imaginative force. But it is not force that comes from the dizzying numbers we have associated with MOOCs – 10,000 students, 30,000 students in a single course; in some of these nodal courses student numbers were capped at 8, at 15, at 20. The deep structure of collaboration is articulated in feminist principles of pedagogy and in the proliferating feedback loops among the professors across the country, becoming more profound throughout the semester, deepening in the evaluation that was held at conclusion of the course, with people participating from every course node. The model of collaboration is both embodied and distant. Finally, distribution suggests the importance of the *re-distribution of intellectual capital* to include feminist critical and theoretical work on the study of technology and its histories as well as the contributions of feminists – inventions and interventions – to media art.

And affect? I would put the emphasis on the intellectual exhilaration I find in the essay Alexandra Juhasz and Anne Balsamo contributed to the first issue of *Ada: A Journal of Gender, New Media, and Technology*, describing the process of imagining FemTechNet and getting it off the ground. It is itself an inspiring instance of feminist collaboration. Juhasz and Balsamo note that FemTechNet was launched in the spring of 2012 as a result of a series of “private conversations about our shared sense of longing for feminist scholarly and artistic community that deeply understood the histories of feminist work as they also focused on pushing the horizon of contemporary efforts.” I love knowing they initially met at a Starbucks for coffee and later met for lunch. I love the warm detail that it was “delightful to sit across the table from someone who saw the world in the same confused and yet inspiring way.” I love learning that not too long afterward the two of them gathered together some ten feminist academics from the US and Canada to explore the idea of an alternative learning infrastructure to the MOOCs, with the bedrock principles being that they would work only with “the scholars and artists who we admire, share our interests, and who feel they belong.” Plus, no divas allowed. And *boom*, it happened! I see FemTechNet as an exciting example of intellectual intimacy – distributed widely. As Alexandra Juhasz concluded, “my recent thinking about feminist possibilities online are driven by the certain knowledge that IRL relationships are the glue, inspiration, and solidification most of us need to stay committed to each other digitally.”

What is core to collaboration: digital tools? relationships?

Today in the academy, we routinely hear from offices of research that collaborative tools – a term ubiquitous in our digital moment – are necessary to support the research enterprise, with quantitative research and big data core to it. Similarly, the term “open collaboration” is pervasive in the academy, referring exclusively to digitally mediated communication. In contrast, the three projects in the arts and humanities I have cited are not computationally oriented; they do not deal with big data, never mind quantum computing.¹⁸ They all rely on digital media, and websites are key, although in different proportions, to the realization of their projects: to the articulation, preservation, and communication and dissemination of materials and of the projects themselves. Certainly, the very medium of the World Wide Web enables collaboration of different kinds. But to what extent could we say digital tools – especially high-tech, complicated tools – are essential to, or the core of, their kinds of collaboration?

Perhaps I am posing the question too starkly. Still, I have found that Virginia Eubanks’ book *Digital Dead End: Fighting for Social Justice in the Information Age* has provided me with a helpful way of thinking about the question of the relationship between collaboration and digital tools in the humanities and arts, or perhaps I should say, offers a methodological and sociopolitical parable about collaboration and technology, with the point being that we should not overvalue new and complex digital technologies and tools as the prime mover of collaboration or, more dramatically, as quintessential to the good life. Or to put it another way: We can resist the technological imperative; it is not a foregone conclusion that we must necessarily use the technologies that are available to us.

Digital Dead End is a study of the role of information technology in the lives of a group of low-income women who live in a YWCA in upstate New York, Troy to be specific – Eubanks’ own community, in fact. Eubanks describes her methods, in opposition to participant observation, as “collaborative discussion and reflection” and more strongly, as “collaborative action and reflection,” wanting to capture the truly reciprocal and conversational nature of the process of research, which resonates with the ethic of community-based action research (2011, 172–3). Marked by mutuality and reciprocity, collaboration itself became a feminist method for Eubanks as she pursued her research.

What is very important to me here is that as a result of thinking *with* these women, Eubanks fundamentally changed her thinking *about* the omnipresent discourse of digital divides and access to digital networks as both the problem and the solution. “Validity came from a deep connection and passionate engagement within my community – *my* community, my neighbors,

my friends – not from critical distance and neutrality,” she writes, explaining that collaboration entailed “collaborative analysis” (2011, 34). Collaboration enabled her to conceptualize her research differently and to come to far-reaching conclusions she hadn’t anticipated. While I can’t rehearse her argument here, I do want to underscore that Eubanks does not see the focus on the development of high-technology industries as the solution to contemporary inequities of all kinds. Rather, she advocates for what she calls popular technology, or vernacular technology; “popular technology,” she writes, “is an approach to critical technological citizenship education based on the insights of broadly participatory, democratic methods of knowledge generation” (2011, 104).¹⁹

Critical to the three feminist projects in the arts and humanities I’ve profiled is face-to-face interaction – a key tenet of feminist pedagogy – as an essential condition for collaboration to grow and to thrive, with feminist principles guiding the collaboration, the results of which may – or may not – be impressively scaled up and distributed far and wide.²⁰ These projects model the generation of intimacy – of different kinds – as itself an atmosphere in which collaboration can flourish. They model the conviction, formed through practice, that first and foremost knowledge is created and developed through relationships.

Thus, critical also, I would add, is the relatively low-tech nature of these three projects. The 2013 FemTechNet course on Dialogues in Feminism and Technology is a feminist intervention *par excellence* in the deployment of technological platforms in higher education. It is low-tech, not high-tech, rendering the bar to participation low, making it easy to join the network. The interviews in the *Women Who Rock Oral History Archive* were undertaken in a DIY spirit and with recording tools to match (following Ivan Illich 1973, we might call these low-cost video cameras “tools for conviviality”); the interviews are available to the general public on the University of Washington Libraries website (although they are not as straightforward to locate as they should be). Of the three projects, *Public Secrets* is the most sophisticated in terms of design – it was custom designed, not assembled on a template – but Sharon Daniel used simple recording devices in conducting her conversations behind bars, and the piece itself is easily accessible to the viewer on the web.

Science and technology studies scholar Langdon Winner’s seminal essay “Do Artifacts Have Politics?” is exceedingly helpful here. His argument is complex but, for my purposes, can be cast, by analogy, in terms of the different kinds of social relationships (of cost, of ease of use, of understanding, of potential risk, of repair) engendered by a bicycle, on the one hand, and a nuclear power plant, on the other. Intuitively we can clearly see that the bicycle is a low-cost, non-hierarchical form of transportation

while a nuclear power plant requires massive resources for construction and maintenance, poses extreme risk, and is strictly hierarchical in terms of the knowledge needed to administer it; as the economist E.F. Schumacher memorably said, small is beautiful. It is the deep dream of developers of the World Wide Web that the space be one that is democratic, non-hierarchical, and available to all, that the net be neutral, a dream that has widely been called into question by corporate practices of surveillance, recent policy initiatives, and hacking by rogue and state actors, among many other things.

Do websites have politics? That is an interesting question, one I can't, of course, address in any detail here, although I have implicitly been arguing that certain principles – ease of access and ease of functionality, for example, as well as low barriers to distribution – are critical to creating common goods. In addition, given my focus on collaboration and given the ubiquity of digital media in the landscape of our everyday life, it may be beside the point to focus on the medium itself. To repeat: I am putting the emphasis on the relational, not the technological; I am stressing relationship-rich collaboration that is not extractive but rather horizontal and non-hierarchical in practice – collaboration whose ethos is feminist. If five people were collaborating on a book, would we discuss their collaboration by first elaborating the affordances that the technology of the book offers?

Collaborative inquiry, public universities, and public feelings

All three of the imaginative collaborative projects I have profiled were conceived by women at public universities.²¹ A central goal of all three is to reach out and involve people beyond the academic borders of our institutions. All three are contributing to the growing movement in the academy in the humanities to reclaim our work as a public good, expanding the reach of our research and teaching beyond the sphere of hyper-professionalization where, in terms of research in particular, academics engage only with other academics. As these projects attest, with the emergence of digital media, we have at our disposal new educational spaces and multi-modal forms of communication. Indeed, many people today conceptualize the internet itself as a public space, one that, if accessible in all senses, condenses geographical distance.²² What kinds of online public spaces do these three projects represent? *Public Secrets* exemplifies a subaltern counterpublic. The *Women Who Rock Oral History Archive* is a spirited instance of a university–community collaboration that makes public the multiple contributions that women have made to popular music. And the deeply collaborative collective (it is more than a network) that is FemTechNet reminds us that online – or distributed – collaboration is reliant on a foundation of personal relationships, one that

needs constantly to be renewed. FemTechNet also reminds us that “the public” is located inside the university – our students constitute our most important public – as well as beyond it.²³

I have called attention to the affective dimension of these three projects. Today the study of affect and the emotions – the affective turn, as it has been called – constitutes a thriving area of research across many disciplines and fields. But there is a kind of contradiction, or irony, here. Why? Because it is still a largely unexamined assumption that scholarship must carry a neutral tone, or worse, be flat in nature. However, for increasing numbers of us, pedagogy, scholarship, and advocacy are not antithetical; they go hand in hand; urgency requires a different tone. In addition, it is also a largely unexamined assumption that outcomes (that dispiriting term) must be measurable, calculable, quantifiable. But in stunning contrast, what I see in these compelling projects and practices is the enlivening effect of creating emotional bonds that have the potential to generate solidarity through feeling as well as thought and analysis. Among many other things, these projects offer us public feelings.²⁴

It is widely acknowledged that the goal of research and scholarship is to contribute to the storehouse of knowledge and to the public good. In *The Great Mistake: How We Wrecked Public Universities and How We Can Fix Them*, Christopher Newfield defines a public good as “a good whose benefit continues to increase as it approaches universal access.” He gives public health as an example. “Your ability to avoid a lethal virus,” he writes, “depends both on your own access to preventive measures *and* a similar access for as many other members of society as possible” (2018, 64). Analogously, I take seriously the idea that one of the goals of (some of) our teaching, research, and scholarship, as well as creative work, is to contribute to the invaluable storehouse of affirmative and democratic public feelings – among them, feelings of concern, friendship, and respect; they are in and of themselves public goods.²⁵ This invaluable storehouse of public feeling would also include feelings such as those I’ve called out in the three feminist projects I’ve cited: dismay, outrage, empathy, and admiration; *convivencia*, and feelings of vitality and belonging; and exhilaration sparked by intellectual intimacy and institutional creativity. We can understand dismay and outrage, for instance, as public goods whose benefit continues to increase as it is felt by more people in the service of justice of all kinds. And to this we might add the basic affect of collaboration itself: It is trust.

Note: An earlier version of this chapter was given in a session on Women, Collaboration, and New Media at the Modern Language Association Convention, Chicago, January 12, 2014. My thanks to the people on the panel – Kate Flint, Laura Mandell, and Jessica Pressman – and in the audience.

Notes

- 1 See *Pathways Through Graduate School and into Careers* from the National Council of Graduate Schools; *Advancing Research in Science and Engineering* from the American Academy of Arts and Sciences; *Report on Doctoral Study in Modern Language and Literature* from the Modern Language Association; and the *Career Diversity Initiative* of the American Historical Association. As the Executive Summary of *Pathways Through Graduate School and Into Careers* specifies: “In addition to requisite content knowledge, critical skills such as professionalism and work ethic, oral and written communication, collaboration and teamwork, and critical thinking and problem solving are consistently defined as important to job success.” Regarding the American Historical Association’s initiative, see Colleen Flaherty’s (2017) piece in *Inside Higher Ed*.
- 2 See Jeffrey Schnapp, Peter Lunenfeld, and Todd Presner, “Digital Humanities Manifesto 2.0”: “Digital Humanities have a utopian core shaped by its genealogical descent from the counterculture-cyberculture intertwinings of the 60s and 70s. This is why it affirms the value of the open, the infinite, the expansive, the university/museum/archive/library without walls, the democratization of culture and scholarship, even as it affirms the value of large-scale statistically grounded methods (such as cultural analytics) that collapse the boundaries between the humanities and the social and natural sciences.”
- 3 See Martin Sanders (2007), who writes: “Literary scholars tend to be solitary animals who prefer to stalk their prey alone. Most of us are as territorial as badgers. We mark our areas of expertise with peer-reviewed publications, we meet trespassers by gently nudging them off our turf, or, should somebody insist on encroaching, by hindering them in ways that range from passive aggression to active sabotage.”
- 4 As communications scholar Zizi Papacharissi (2015) clearly puts it, “the internet pluralizes but does not inherently democratize spheres of social, culture, political, or economic activity” (8).
- 5 See Julie Thompson Klein’s (2015) discussion of Sharon Daniel’s *Public Secrets* in terms of Patrik Svensson’s 5-part typology of digital humanities projects; Klein, drawing on Balsamo, emphasizes the hybrid and boundary-breaking mode of *Public Secrets* as an activist production, an artistic installation, an example of cultural critique, and an intervention (23).
- 6 As Fraser (1990) writes in her visionary essay, “members of subordinated social groups – women, workers, peoples of color, and gays and lesbians – have repeatedly found it advantageous to constitute alternative publics. I propose to call these subaltern counterpublics in order to signal that they are parallel discursive arenas where members of subordinated social groups invent and circulate counterdiscourses” (67).
- 7 In “Collaborative Systems,” Daniel (2011) writes, “As a context provider, I am more of an immigrant than an ethnographer, crossing over from the objective to the subjective, from the theoretical to the anecdotal, from authority (artist/ethnographer) to unauthorized alien” (82).
- 8 I also selected Sharon Daniel’s *Public Secrets* because it was published in *Vectors*, and it is out of *Vectors* that the flexible, ambitious, multi-modal platform for long-form, media-rich scholarship has emerged under the name of Scalar; McPherson (2014) addresses the capacities of Scalar in “Designing for Difference.”

- 9 In “Collaborative Systems,” Daniel (2011) notes that participants, interactors, and collaborators hold different subject positions (74); she associates participants with users of software. I have slightly altered her meaning, understanding participants in *Public Secrets* to be those she has interviewed who have thus become collaborators in *Public Secrets* itself.
- 10 For a discussion of different modalities of shame as well as Berenice Fisher’s feminist notion of shame, see my chapter in *Statistical Panic* on “Racial Shame, Mass-Mediated Shame, Mutual Shame” (2009, 79–108).
- 11 “Admiration” rings like a bell throughout literary and cultural studies scholar Doris Sommer’s (2014) *The Work of Art in the World*. As she writes, admiration “is the basic sentiment of citizenship, a term I use in the sense of participant rather than legal status” (6); admiration “animates civic life by expecting valuable participation from others. Toleration is lame by comparison; it counts on one’s own opinions while waiting for others to stop talking” (111).
- 12 See Lisa Costello (2015) on collaborative mentoring.
- 13 In their essay “Women Who Rock: Making Scenes, Building Communities (Convivencia and Archivist Praxis for a Digital Era),” Habell-Pallán, Retman, Angelica Macklin, and Monica De La Torre (2018) address the important issue of the many people who constitute the founding and ever-evolving collective of the “we” of Women Who Rock.
- 14 Alicia “Bag” Velasquez, epigraph, qtd. in Habell-Pallán, Retman, and Macklin (2014).
- 15 There is a precedent for this course in the world of print journalism with its core readings distributed by a legacy communication technology – the newspaper: The Fall 1973 and Fall 1974 Course by Newspaper, an experiment in national education originating with University Extension, University of California, San Diego, with support from the National Endowment for the Humanities. The title of the first course was America and the Future of Man; 263 newspapers, with a combined circulation of 22 million, participated, as well as 188 colleges and universities that carried the course for credit. The Fall 1974 course was entitled In Search of the American Dream; I taught the course for credit at the University of Wisconsin, Milwaukee at a site off-campus.
- 16 As an organization, FemTechNet rapidly evolved into a resilient network of women – artists, scholars, librarians, among them – with shared responsibility for its multiple projects, uncannily taking shape at the same time as the FemBot Collective which publishes *Ada*.
- 17 For an account of later FemTechNet DOCCs, see Karen Keifer-Boyd.
- 18 See Wouters and Beaulieu (2006), who argue that e-science is decisively shaped epistemologically by computer science, contrasting its practice with that of research in women’s studies, asking, “what would a non-computational e-science practice look like” (50).
- 19 Eubanks (2011) develops what she calls a theory of cognitive justice for the information age (129–152).
- 20 See Colleen Flaherty (2017), “Study,” who reports that a 2017 study of papers and patents associated with the Massachusetts Institute of Technology concluded that interdepartmental and crossdisciplinary collaboration is sparked by interaction that is face-to-face in shared spaces. In addition, anecdotally, Jeffrey Nesteruk (2017), a professor of Legal Studies at Franklin & Marshall College, has recently called attention to the importance of academic friendships for boundary-spanning work.

- 21 The exception is Alexandra Juhasz, who was at Pitzer College when she and Ann Balsamo came up with the idea for FemTechNet.
- 22 Sharon Daniel (2009) has explicitly referred to the internet as a public space; see “Hybrid Practices,” 154. The internet as an accessible and neutral public space is of course being called into question for many reasons in the US, not least because of the recent decision on net neutrality.
- 23 We need to elaborate further what we mean by collaboration in terms of the concepts of the public, publics, and counterpublics as well as community, audience, and network as they are aligned with the goals of social, cultural, and intellectual justice. It is clear, however, that all three of these projects embody notions of the public that distinguish them clearly from what Tarleton Gillespie and Kate Crawford call “calculated publics,” assembled by algorithms.
- 24 I am borrowing this perfect term from Ann Cvetkovich, whose important books include *An Archive of Public Feelings* and *Depression: A Public Feeling*.
- 25 I am here using the terms “affect” and “public feelings” very differently from Zizi Papacharissi (2015) in her wonderful book *Affective Publics: Sentiment, Technology, and Politics*. Papacharissi studies the generation, circulation, and amplification of affect through social media – Twitter is her case in point – with affect understood not in terms of emotional bonds but rather in terms of energy, with exchanges taking the shape of conversation and thus resembling interpersonal communication, seemingly connecting people and enabling them to, as she puts it, to feel “their way into the developing event” (5). “Affect is non-rational and non-directional,” she writes. “It does not possess an agenda but it does possess intensity, and intensity allows it to feel” (93).

Works cited

- American Academy of Arts and Sciences. 2013. “Advancing Research in Science and Engineering: The Role of Academia, Industry, and Government in the 21st Century (ARISE II).” www.amacad.org/multimedia/pdfs/ARISEII_Executive-Summary.pdf.
- American Historical Association. 2016. “Career Diversity Initiative.” www.historians.org/jobs-and-professional-development/career-diversity-for-historians/career-diversity-resources/five-skills.
- Berlant, Lauren. 2011. *Cruel Optimism*. Durham, NC: Duke University Press.
- Berrios-Miranda, Marisol, Shannon Dudley, and Michelle Habell-Pallán. 2018. *American Sabor: Latinos and Latinas in US Popular Music*. Seattle: University of Washington Press.
- Castells, Manuel. 2009. *Communication Power*. New York: Oxford University Press.
- Commission on Pathways Through Graduate School and into Careers. 2012. “Pathways Through Graduate School and into Careers.” *Educational Testing Service and the Council of Graduate Schools*. www.pathwaysreport.org.
- Costello, Lisa A. 2015. “Standing Up and Standing Together: Feminist Teaching and Collaborative Mentoring.” *Feminist Teacher* 26: 1–28.
- Crawford, Kate. “Can an Algorithm Be Agonistic: Ten Scenes from Life in Calculated Publics.” *Science, Technology, and Human Values* 41 (1): 77–92.

- Cvetkovich, Ann. 2003. *An Archive of Feelings: Trauma, Sexuality, and Lesbian Public Culture*. Durham, NC: Duke University Press.
- . 2012. *Depression: A Public Feeling*. Durham, NC: Duke University Press.
- Daniel, Sharon. 2006. "The Public Secret: Information and Social Knowledge." *Intelligent Agent* 6 (2).
- . 2007. "Public Secrets." *Vectors*. <http://vectors.usc.edu/projects/index.php?project=57>.
- . 2009. "Hybrid Practices." *Cinema Journal* 48 (2) (Winter): 154–159.
- . 2011. "Collaborative Systems: Redefining Public Art." In *Context Providers: Conditions of Meaning in Media Arts*, edited by Margot Lovejoy, Christiane Paul, and Victoria Vesna, 55–87. Bristol, UK: Intellect.
- . 2014. "Pledge." www.sharondaniel.net/#pledge.
- Eubanks, Virginia. 2011. *Digital Dead End: Fighting for Social Justice in the Information Age*. Cambridge, MA: MIT Press.
- Fembot Collective. 2018. <https://fembotcollective.org/>.
- Fisher, Berenice. 1984. "Guilt and Shame in the Women's Movement: The Radical Ideal of Action and Its Meaning for Feminist Intellectuals." *Feminist Studies* 10 (2): 185–212.
- Flaherty, Colleen. 2017. "Study: Proximity Still Matters to Collaboration." *Inside Higher Ed.*, July 11, 2017. www.insidehighered.com/quicktakes/2017/07/11/study-proximity-still-matters-collaboration.
- . 2018. "Historians Urge Departments to Enthusiastically and Substantively Prepare Grad Students for a Range of Careers." *Inside Higher Ed*, January 8, 2018.
- Flanders, Julia. 2012. "Collaboration and Dissent: Challenges of Collaborative Standards for Digital Humanities." In *Collaborative Research in the Digital Humanities*, edited by Marilyn Deegan and Willard McCarty, 67–81. Farnham: Ashgate.
- Fraser, Nancy. 1990. "Rethinking the Public Sphere: A Contribution to the Critique of Actually Existing Democracy." *Social Text* 25/26: 56–80.
- Habell-Pallán, Michelle, Sonnet Retman, and Angelica Macklin. 2014. "Notes on Women Who Rock: Making Scenes, Building Communities: Participatory Research, Community Engagement, and Archival Practice." *NANO: New American Notes Online* 5.
- Habell-Pallán, Michelle, Sonnet Retman, Angelica Macklin, and Monica De La Torre. 2018. "Women Who Rock: Making Scenes, Building Communities (Convivencia and Archivist Praxis for a Digital Era)." In *Routledge Companion to Media Studies and Digital Humanities*, edited by Jentery Sayers, 67–77. New York: Routledge.
- Illich, Ivan. 1973. *Tools for Conviviality*. New York: Harper & Row.
- Juhász, Alexandra, and Anne Balsamo. 2012. "An Idea Whose Time Is Here: FemTechNet – A Distributed Online Collaborative Course (DOCC)." *Ada: A Journal of Gender, New Media, and Technology* 1.
- Keifer-Boyd, K.T. 2017. "FemTechNet Distributed Open Collaborative Course: Performing Difference, Exquisite Engendering, and Feminist Mapping." In *Convergence of Contemporary Art, Visual Culture, and Global Civic Engagement*, edited by Ryan Shin, 278–296. Hershey, PA: IGI Global.

- Klein, Julie Thompson. 2015. *Interdisciplining Digital Humanities: Boundary Work in an Emerging Field*. Ann Arbor: University of Michigan Press.
- . 2018. "The Boundary Work of Making in Digital Humanities." In *Making Things and Drawing Boundaries: Experiments in the Digital Humanities*, edited by Jentery Sayers, 21–31. Minneapolis: University of Minnesota Press.
- McPherson, Tara. 2014. "Designing for Difference." *Differences: A Journal of Feminist Cultural Studies* 25 (1): 177–188.
- Modern Language Association. 2014. "Report on Doctoral Study in Modern Language and Literature." www.mla.org/Resources/Research/Surveys-Reports-and-Other-Documents/Staffing-Salaries-and-Other-Professional-Issues/Report-of-the-Task-Force-on-Doctoral-Study-in-Modern-Language-and-Literature-2014.
- Nesteruk, Jeffrey. 2017. "The Importance of Friendships for Furthering Scholarship (Opinion)." *Inside Higher Ed*, December 5, 2017. www.insidehighered.com/advice/2017/12/05/importance-friendships-furthering-scholarship-opinion.
- Newfield, Christopher. 2018. *The Great Mistake: How We Wrecked Public Universities and How We Can Fix Them*. Baltimore: Johns Hopkins University Press.
- Papacharissi, Zizi. 2015. *Affective Publics: Sentiment, Technology, and Politics*. New York: Oxford University Press.
- Sanders, Martin. 2007. "In the Spirit of Collaboration." *The Chronicle of Higher Education*, November 21, 2007.
- Scheiber, Jane L., and Robert C. Elliott, eds. 1974. *In Search of the American Dream: A Reader for the Second Course by Newspaper*. New York: New American Library.
- Schnapp, Jeffrey, Peter Lunenfeld, and Todd Presner. 2009. "Digital Humanities Manifesto 2.0." www.humanitiesblast.com/manifesto/Manifesto_V2.pdf.
- Schumacher, E.F. 1973. *Small Is Beautiful: A Study of Economics as If People Mattered*. New York: Harper & Row.
- Sommer, Doris. 2014. *The Work of Art in the World: Civic Agency and Public Humanities*. Durham, NC: Duke University Press.
- University of Washington Libraries. 2018. "Women Who Rock Oral History Archive." <http://content.lib.washington.edu/wwwweb/>.
- Weinberger, David. 2011. *Too Big to Know: Rethinking Knowledge Now That the Facts Aren't the Facts, Experts Are Everywhere, and the Smartest Person in the Room Is the Room*. New York: Basic Books.
- Winner, Langdon. 1980. "Do Artifacts Have Politics?" *Daedalus* 109 (1) (Winter): 121–136.
- Woodward, Kathleen. 2009. *Statistical Panic: Cultural Politics and Poetics of the Emotions*. Durham, NC: Duke University Press.
- Wouters, Paul, and Anne Beaulieu. 2006. "Imagining E-Science Beyond Computation." In *New Infrastructures for Knowledge Production: Understanding E-Science*, edited by Christine Hine, 48–70. London: Information Science Publishing.