



# DIGITAL DEAD END

FIGHTING FOR SOCIAL JUSTICE IN THE INFORMATION AGE



**VIRGINIA EUBANKS**

---

## Digital Dead End



---

# **Digital Dead End**

**Fighting for Social Justice in the Information Age**

**Virginia Eubanks**

**The MIT Press  
Cambridge, Massachusetts  
London, England**

---

© 2011 Massachusetts Institute of Technology

All rights reserved. No part of this book may be reproduced in any form by any electronic or mechanical means (including photocopying, recording, or information storage and retrieval) without permission in writing from the publisher.

For information about special quantity discounts, please email [special\\_sales@mitpress.mit.edu](mailto:special_sales@mitpress.mit.edu).

This book was set in Stone Sans and Stone Serif by Toppan Best-set Premedia Limited. Printed and bound in the United States of America.

Library of Congress Cataloging-in-Publication Data

Eubanks, Virginia, 1972–

Digital Dead End : Fighting for Social Justice in the Information Age / Virginia Eubanks.

p. cm.

Includes bibliographical references and index.

ISBN 978-0-262-01498-4 (hardcover : alk. paper)

1. Technology—Sociological aspects. 2. Technology—Sex differences.

3. Technology and women. I. Title.

HM846.E93 2011

303.48'34082—dc22

2010018810

10 9 8 7 6 5 4 3 2 1

---

To the women of the YWCA of Troy-Cohoes community.

Without your insight, generosity, and humor, this book would not exist.



---

## Contents

Author's Note ix  
Acknowledgments xi  
Introduction xv

<b>1</b>	<b>Four Beginnings</b>	<b>1</b>
<b>2</b>	<b>The Real World of Information Technology</b>	<b>23</b>
<b>3</b>	<b>Trapped in the Digital Divide</b>	<b>35</b>
<b>4</b>	<b>Drowning in the Sink-or-Swim Economy</b>	<b>49</b>
<b>5</b>	<b>Technologies of Citizenship</b>	<b>81</b>
<b>6</b>	<b>Popular Technology</b>	<b>99</b>
<b>7</b>	<b>Cognitive Justice and Critical Technological Citizenship</b>	<b>129</b>
	Conclusion: A High-Tech Equity Agenda	153
	Appendix A: Research Methodology	171
	Appendix B: WYMSM Sample Agendas	181
	Appendix C: Popular Technology Sample Exercises	193
	Appendix D: Popular Technology Projects Undertaken at the YWCA of Troy-Cohoes	215
	Notes	219
	References	239
	Index	259





---

## Author's Note

The author will donate half of the royalties from the sale of this book to the Popular Technology Workshops, a grassroots organization based in Troy, New York. The Popular Technology Workshops are dedicated to fostering a vibrant people's movement to promote economic equity, political participation, and social justice in the information age. More information about the organization can be found at <<http://www.digitaldeadend.com>>.



---

## Acknowledgments

This book was inspired and enriched by the work of countless people, and I am deeply indebted to the rich and vibrant community of research and activism that grew up around it. It goes without saying that this work would be inconceivable without the remarkable generosity and resourcefulness of the women of the YWCA of Troy-Cohoes community. I would especially like to thank my research collaborators in WYMSM, including Nancy D. Campbell, Coffee, Jessica Constantine, Cuemi Gibson, Ruth Delgado Guzman, Cosandra Jennings, Chitsunge Mapondera, Patty Marshall, Christine Nealon, Zianaveva Raitano, Jennifer Rose, and Julia Soto Lebentritt. I hope I have represented our collective work faithfully. Special thanks to Isaac and Mark, who kept us smiling through long afternoon meetings.

Thanks to Pat Dinkelaker, an early and steadfast champion of this project, and executive director of the YWCA for its duration. Her leadership, vision, and kindness enriched the lives of thousands of women at the YWCA and started me on a new path. Thanks to the wonderful staff of the YWCA during my time there: Sue Alberino, Bonnie Benson, Jes Constantine, Ronnie Cush, Liz Girolami, Sue Kemnitzer, Kelly Klein, Christine Nealon, Joni Richter, Sarah Smiley, and Andrea Walters. My thanks also go to interviewees, participants in public programs, tech lab and Resource Center users, residents, and other members of the YWCA community for the honesty and generosity with which they shared their experience. They have been identified only by pseudonyms, so I won't blow their cover here. You know who you are.

My thanks also go to the members of Our Knowledge, Our Power: Surviving Welfare, the grassroots antipoverty and welfare rights organization that grew out of the work recounted here, for providing continued insight and inspiration and for keeping me accountable. Members include Linda Adams, Aalim Ammar, Anne Bink, Devona Brown, Hee Jeong

“Robyn” Chung, Jes Constantine, Roberta Farrell, Mishel Filisha, Deborah Ford, Cuemi Gibson, Catherine Gordon, Kenneth and Kenny Harris, Kizzy Howell, Molly Hussey, Victoria Kereszi, Penny Lane, Nadya Lawson, Tiffany Lherisson, Andrew Lynn, Patty Marshall, Shihoko Nakagawa, Christine Nealon, Ibi Oduyemi, Mary Pimble, Denise Roe, Glen Taylor, Donna Tenney, Shaneeka Thrasher, Maggie Torres, Kristin Turano, Jennifer Vasquez, Dametriss Walker, and Kim Wheeler.

I owe a great debt to my editor at MIT Press, Marguerite Avery, who challenged me to produce a book that would appeal to both academic and popular audiences, providing me space to rediscover the joy of writing for a broad readership. Thanks to four anonymous reviewers, whose input greatly improved the book. I am grateful to the members of Rebecca Wolff’s Hybrid Writing Workshop at the New York State Writers’ Institute for giving me a much needed push early in my rewriting. Thanks are also due to various incarnations of the Ladies Writing League—Anne Bink, Jennifer Burrell, Amy Halloran, Alethia Jones, Patricia Strach, and Meisha Rosenberg—who fed me, supported me, and provided critique and encouragement throughout the process. Amy, Alethia, and Meisha read every word of the manuscript, sometimes several times, as I struggled to put the whole story together in the final year of writing, and I owe them more than I can say.

I am extremely grateful to the staff, interns, and visitors at the Highlander Research and Education Center in New Market, Tennessee, especially Kristi Coleman, Mónica Hernández, Pam McMichael, Jenny Paris, Rob Reining, Sheena Sood, Elandria Williams, and Susan Williams, who provided me sanctuary at two important times in this process. Thanks to Sanford Schram, who rode in like a knight in shining armor at a particularly tense moment, and to Joe Soss, one of my most enthusiastic and consistent supporters. Thanks to *Times Union* business writer Larry Rulison and feminist economists Drucilla Barker and Suzanne Bergeron for providing timely and provocative comments on chapter 4.

This project spanned my time at two unique academic institutions and extended over a period of intense change in my personal and professional life. I would not have made it through without my colleagues and friends at Rensselaer Polytechnic Institute and the University at Albany, State University of New York. At Rensselaer, I owe a debt of gratitude to my dissertation committee, who helped me start this project: Rayvon Fouché, Davydd Greenwood, David Hess, and Langdon Winner. I thank my lucky stars that Nancy D. Campbell, my dissertation chair, decided to take a chance on a “high-risk, high-yield” doctoral thesis, and stuck with me

through all the ramifications of that decision. I am proud and honored to call you a friend and mentor.

The Community Outreach Partnership Center (COPC) at Rensselaer—Frances Bronet, Nancy D. Campbell, Ron Eglash, Branda Miller, Barb Nelson, and Steve Pierce—provided funding and encouragement through the research stages of this project. I thank my colleagues in Science and Technology Studies at Rensselaer: Michael G. Bennett, Jean-Francois Blanchette, Camar Diaz-Torres, Nicole Farkas, Jill Fisher, Jenrose Fitzgerald, Kim and Michael Fortun, Art Fricke, Abby Kinchy, Torin Monahan, Dean Nieusma, Jason Patton, Hector Postigo, Erich Schienke, Jeanette Simmonds, and Alex Sokoloff. Your friendship and insight helped me figure out who I am as a scholar and an activist.

I am thrilled that I found a home in the Department of Women's Studies at University at Albany, SUNY. I am inspired and encouraged by a wonderful group of colleagues in the department and across the campus: Chris Bose, Maia Boswell-Penc, Janell Hobson, Alethia Jones, Fernando Leiva, Vivien W. Ng, Gwen Moore, Marjorie Pryse, Loretta Pyles, Bonnie Spanier, Glenna Spitze, Patricia Strach, and Barbara Sutton. Special thanks go to Julie Novkov, my mentor and professional idol, for shepherding me through difficult times and evening my keel. Though there are too many to list here, I draw endless motivation and energy from all my wonderful students in the Women's Studies department. I am privileged to watch you become sharper thinkers, better advocates, and more fearless fighters for justice.

It is easier to be courageous in concert, so I draw great strength from the community of feminist activists in the Capital Region. Those I have not already mentioned include Jaclyn DeChiro, Q Diamond, Jackie Hayes, Nadya Lawson, Naomi Jaffe, Cricket Keating, Roxanne Ramlall, Carmen Rau, Barbara Smith, and Fiona Thompson. I owe my wonderful friends Nina Baldwin, Tanya Bastone, Celia DuBose, Adam Frelin, Jackie Goss, Amy Halloran, Rachel Havrelock, Niki Haynes, Alethia Jones, Penny Lane, Steve Rein, and Kate Sipher many phone calls, and thank them for helping me keep body and soul together. Thanks to Nick Matulis for putting a roof over my head, and for always asking how the writing's going. Thanks to my family—Carole Eubanks, Hardy Eubanks, David Deigan, Tommy and Brenda Eubanks, and Daphne, Patrick, and Elizabeth Haugh—for their support of this project and their endless patience with me.

Finally, I am especially and eternally grateful to Jason Martin, my first reader and closest friend, who teaches me daily how to live a life of courage, integrity, and honesty.

This research was funded in part by a HUD Community Outreach Partnership (COPC) grant and a National Science Foundation dissertation improvement grant (NSF 0322525). The manuscript was completed with the help of a Dr. Nuala McGann Drescher Leave Award from the Joint Labor-Management Committees of New York State and United University Professions. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author and do not necessarily reflect the views of the Department of Housing and Urban Development, the National Science Foundation, the Joint Labor Management Committees, or United University Professions.

---

## Introduction

In his first address to Congress, in February 2009, President Barack H. Obama called on the redemptive power of science and technology to help pull the nation out of its deepest economic crisis since the Great Depression. Even before his inauguration, in a January 15 summary of the American Recovery and Reinvestment Act (ARRA), the Committee on Appropriations argued forcefully, “We need to put scientists to work looking for the next great discovery, creating jobs in cutting-edge technologies, and making smart investments that will help businesses in every community succeed in the global economy” (Obey and Committee on Appropriations 2009). ARRA set aside \$16 billion, about 3 percent of proposed investment spending, for science facilities, research, and instrumentation, and to expand broadband access in rural and underserved areas. In his address, President Obama explained, “We have . . . made the largest investment in basic research funding in American history—an investment that will spur not only new discoveries in energy, but breakthroughs in medicine, science and technology” (Obama 2009). This commitment, he argued, is crucial to ensure American competitiveness and leadership on a global scale.

President Obama’s proposed investments in American education, infrastructure, sustainable energy, and health care are certainly well placed and long overdue. But I argue in this book that continued emphasis on the development of science and technology as *the* route to greater prosperity and equality for all Americans is a familiar but dangerously underexamined species of magical thinking. In psychology, magical thinking is the belief that merely thinking about an event in the external world can cause it to occur, a delusion often present in very young children and schizophrenics. Many of us in the United States have engaged in a massive, collective, consensual hallucination about the power of technology, particularly information technology (IT), to “level the playing field,” create



broad-based economic and social equality, and nurture transparency and accountability in democratic governance.

This magical thinking has its root in an incomplete picture of the impacts of IT and technology-driven economic development schemes in our communities, a myopia shaped by race, class, and gender inequality. This shortsightedness in turn skews our policy responses to issues of high-tech equity and, in many cases, creates policies and institutions that deepen inequality rather than alleviate it. We need to expand and clarify our vision of equity in an information age. Massive investment in science and technology without simultaneous investment in a more just society is an investment in *increasing* political and economic inequality. If robust democracy, broadly shared prosperity, human rights, and equity are important to us as a society, we must reject our magical thinking and look with clear and courageous eyes at the real world of IT, our shared technological present.

In retrospect, the ongoing global financial crisis makes the “new economy” platitudes of the last decade—the high-tech economy is a rising tide that will lift all boats, the information age ushers in a new era in which knowledge triumphs over matter, globalization equalizes the playing field and flattens hierarchies around the world—seem delusional. But magical thinking is deeply infectious. Throughout the process of researching and writing this book, I found it difficult to separate myth from reality myself. A collection of newspaper clippings in my research files illustrates the schizophrenia that swept my home, the Capital Region of upstate New York, in the time between the peak of the dot-com bubble (2000) and the beginning of the worldwide economic downturn (2008). The headlines make for some interesting pairings. “Tech Valley Firms Poised for Growth” is right before “Gap between Rich and Poor Grows Statewide.” “High-Tech Hopes Increase Optimism” is close to “Nearly 800,000 People Will Lose Benefits after Christmas.” “Education Engine Helps Power the Capital Region” is chastened by “Colleges Cut Budgets as Market Erodes Endowments.” The most compelling article sums it all up in a single 2003 headline, “Optimism on Rise in Tech Valley, Hiring Remains Flat.”

This is a book about the myths and realities of the high-tech global economy for people who live in persistent poverty in the United States. More specifically, it is about how magical thinking led to increased economic, social, and political inequalities during a regional effort to create Tech Valley here in the Capital Region of New York. As a corrective against magical thinking, I have labored to keep myself grounded in national, state, and local economic reality and in the day-to-day experiences of

women and families struggling to meet their basic needs in my hometown of Troy. The story I tell is multifaceted, partially because it responds to the dualisms of the information age. But it is also multivocal because the kind of research I engaged in—a collaborative, long-term approach called participatory action research—included the input and analysis of dozens of people from a wide variety of backgrounds, cultures, and experiences. One way to guard against magical thinking, to get out of the habit of denial, is to compare your perceptions with those of others around you, especially those who do not share your social experience of the world. I used participatory methods so that it would be harder to maintain any kind of convenient fiction, testing theories and policy models collectively through practical community action.

Most of the collaborative research that supports this book took place within a grassroots organizing group at the YWCA of Troy-Cohoes, an organization that is both home to ninety women seeking to craft the lives they want for themselves and part of a national membership movement to empower women and eliminate racism by any means necessary. The group was called WYMSM (Women at the YWCA Making Social Movement—we pronounced it *wim-sim*), and was made up of myself,



**Figure 0.1**

The first incarnation of Women at the YWCA Making Social Movement. From left to right: Nancy D. Campbell, Marva Ray, Jenn Rose, Coffee, Patty Marshall, Jes Constantine, Virginia Eubanks, and Chitsunge (Chris) Mapondera.

*Photo:* Christine Nealon

Nancy D. Campbell, “Coffee” (a pseudonym), Jes Constantine, Cuemi Gibson, Ruth Delgado Guzman, Cosandra Jennings, Julia Soto Lebentritt, Chitsunge (Chris) Mapondera, Patty Marshall, Zianaveva Raitano, and Jennifer Rose. Our mission statement read:

As an initiative of the YWCA of Troy-Cohoes community, *Women at the YWCA Making Social Movement* (WYMSM) seeks to use technology as a tool of social change. This community-building collaboration creates projects that help women build awareness of existing resources, knowledge, and experience; precipitate resource sharing and development; and provide supportive encouragement to learn from others’ experiences through technological tools and social network building.

WYMSM members’ voices—drawn from interviews, public events, meeting recordings, and written correspondence—animate this book and shaped my interpretation of additional data collected through public workshops, classes, and events, and in twenty-nine interviews with YWCA residents, staff, community members, and other Troy residents. There are many voices fighting to be heard in this account, and many different interpretations that vie for attention. I have attempted to be true both to my own analysis and interpretation as an author and to the voices of the incredible community of women I worked with throughout the project. I believe the result portrays the realities of living on the ground, with both eyes open, in the information age.

### A Roadmap

*Digital Dead End* began with my attempts to create technology training programs with women living in the YWCA community, efforts that were interrupted by their counterattempts to articulate ambivalence about technology, describe their everyday interactions with it, and express their hopes for a more just future. Their stories challenged my preconceptions, overturned the central tenets of digital divide policy, and shattered the familiar illusion that low-income people are somehow information or technology poor. Their insights forced me to reach beyond the most common model of high-tech equity in the United States—universal access—to explore the relationship among technology, politics, citizenship, and social justice.

This roadmap is intended to help readers chart their own path through the interlocking and complicated stories that make up this book. To begin, in chapter 1, I offer four different origin stories: a bit of my own history, a moment from a workshop at the YWCA that catalyzed major changes in my thinking, a description of a collaborative project undertaken at the

YWCA, and a reflection on love and social action. These points of entry should give the reader a clearer idea of why I approached this research the way I did, what it looked like in practice, and the challenges and advantages participatory research offers.

IT policy and activism often assume middle-class values and experiences, obscuring or neglecting the unique insights and struggles of poor and working-class people.<sup>1</sup> In chapter 2, I discuss the conceptual or theoretical stumbling blocks that keep scholars from understanding the relationship between technology and poverty more fully, including limited ideas about equity and justice, lack of attention to social location, narrow conceptions of citizenship, overly static definitions of technology, and inadequate methodology. In chapter 3, I discuss how these conceptual stumbling blocks have led to public policy that neither takes poor and working-class people's real-life experiences into account nor adequately provides for social justice in the information age. These oversights and omissions are particularly evident in policies directed toward bridging a presumptive digital divide, which, I argue, are trapped in a distributive paradigm that sees all high-tech equity issues as distributive issues.

As a corrective to the oversights described in chapters 2 and 3, I offer the stories and analysis of women living in the YWCA community. In chapter 4, I discuss their experiences of the information economy as our hometown of Troy, New York, seeks a place in a regional economic development initiative called Tech Valley. I also provide evidence that low-income women in Troy participate in the information economy in huge numbers, and I describe their experiences in both low-wage, high-tech jobs and in the service and caregiving industries that make high-tech growth possible. In chapter 5, I explore the interaction of women in the YWCA community with IT in the social service office and investigate the political lessons they learn when dealing with technologies of state administration. The experiences of women in the YWCA community with the information economy and technologies of state administration directly contradict the widespread belief that poor and working-class women lack access to technology. In fact, they describe their lives as characterized by technological ubiquity—technology shapes their workplaces, community institutions, and political experiences. But, unlike many of their middle-class counterparts, their encounters with IT and the high-tech economy tend to be exploitative and limiting, increasing their economic vulnerability and political marginalization.

In this context, the ambivalence women in the YWCA community sometimes expressed toward technology is both understandable and

reasonable. But this ambivalence is double-edged: as more economic, political, and cultural power is routed through IT networks, it is increasingly important to create technologies that integrate broad-based democratic participation and decision making. The second half of the book explores an approach to creating a broadly inclusive and empowering “technology for people,” an approach I call *popular technology*. Popular technology assumes that all people have a rich array of experiences with technology, shaped by their social location, and that these experiences provide a valuable resource for thinking collectively and critically about the relationship among technology, politics, citizenship, and social justice. Popular technology entails shifting from vocational approaches that teach technological skill to popular education approaches that focus on nurturing critical technological citizenship. This shift can have a significant impact on scholarly, policymaking, and social justice work, as well as improve the everyday lives of poor and working-class women and their families.

In chapter 6, I discuss the three models on which popular technology is based—popular education, participatory action research, and participatory design—and describe three popular technology projects undertaken at the YWCA between 2001 and 2004. In chapter 7, I explore the lessons learned in these projects and other WYMSM activities to develop a theory of cognitive justice for the information age. The concepts of cognitive justice and critical technological citizenship offer us a way out of the trap of the distributive paradigm because they broaden the scope of justice beyond access or distribution to encompass freedom from oppression of all kinds. In the conclusion, I synthesize the lessons of the rest of the book to offer a programmatic take on popular technology and to develop a high-tech equity agenda that serves *all* people.

In addition to the central narrative of the book, I have included a wealth of extra information to give readers a sense of how participatory research works, and to encourage readers to give popular technology a try in their own communities. Appendix A is a thorough account of our research methodology, which clearly lays out how the research project was designed, how data were collected and analyzed, and how my collaborators’ insights and analyses were integrated into the final book. Appendix B focuses more narrowly on WYMSM’s meetings, providing agendas and supporting materials to give the reader a rich sense of what the group did on a week-to-week basis. In addition, the reader is introduced to WYMSM throughout the book in member profiles: brief, mostly first-person narratives that WYMSM members and I co-wrote in 2009. Appendix C provides agendas and sup-

porting information for three popular technology workshops offered in different contexts between 2001 and 2009. This information is included in the hope that readers will be sufficiently intrigued to offer the workshops—focused on the self-sufficiency wage, the social service system, and the relationship between technology and social justice activism—in their own communities. Finally, appendix D briefly lists all the popular technology projects we undertook at the YWCA of Troy-Cohoes in order to give readers a sense of activities that did not make it into the book because of space limitations.

I have provided this information because I hope the book will reach a wide audience of scholars, activists, and policymakers. Not all audiences will be equally interested in all chapters. Primarily academic audiences might be more interested in the theoretical work detailed in chapter 2, for example, while activist readers might go directly to the second half of the book and the appendices. I hope that my efforts to tell all these stories in the same book will stretch ideas of what a scholarly book is capable of achieving and provide space for knowledge and analyses that have been truly co-created by engaged academics, activists, community-building organizations, neighbors, and friends. I have tried to weave many threads into a single fabric, because what we lack in high-tech equity work is a holistic picture of the relationship between technology and inequality, one not shaped by the magical belief that simply wishing for justice makes it so.



---

## 1 Four Beginnings

I was born in Dallas, Texas, and brought up in Ho-Ho-Kus, New Jersey, an almost entirely white, middle-class suburb of New York City. Growing up, my experience of the wider world was pretty limited, but my mother, despite her attempts to downplay her working-class East Texas roots in the context of my dad's more patrician banking family, had a strong sense of social justice, equity, and fairness. One of her favorite stories about me concerns an incident that occurred when she was driving me to preschool in Austin, Texas. It was 1976. I was four, and she had recently become a subscriber to *Ms. Magazine*. On that day, I asked about a big building we were passing, one with huge columns like a temple. She told me that it was a Masonic Hall, slyly adding that Masons didn't allow women into their group. When she asked me what I thought about that, she swears that I yelled "That's not fair!" and demanded she pull the car over so that I could go in and talk some sense into them.

Despite my natural inclination toward speaking out, I was raised in a culture of silence. Middle class, white, suburban, and deeply affected by a family member's alcoholism, I always felt as though a secret lay simmering just below the surface of our outwardly calm and prosperous life. I have since found out that this is a pretty common experience for middle-class white people who become antiracist and antipoverty activists later in life. Many of us describe growing up as worried or angry kids, struggling against the shoddy logic and emotional repression that sustain illegitimate power relationships and underwrite white supremacy and economic exploitation.<sup>1</sup> My parents are deeply decent people; they vocally challenged discrimination, worked on political campaigns, and raised two strong-willed, independent daughters. But our family was caught in the web of color-blind racism and class-blind classism: while my parents would not have tolerated a racist or classist joke, they had no close friends of color, and our family never discussed the source—or the impacts—of our money or privilege.



- [download \*The Musical Instrument Desk Reference: A Guide to How Band and Orchestral Instruments Work\*](#)
- [click \*Sherlock Holmes: In His Own Words and in the Words of Those Who Knew Him\* for free](#)
- [download online \*My Dog Tulip\* \(New York Review Books Classics\) pdf, azw \(kindle\)](#)
- [read \*Measurement And Representation of Sensations\* \(Scientific Psychology Series\)](#)
- [click \*IniciaÃ§Ã£o Ã histÃ³ria da arte\*](#)
- [Body Dump: Kendall Francois, the Poughkeepsie Serial Killer book](#)
  
- <http://xn--d1aboelcb1f.xn--p1ai/lib/The-Spanish-Foreign-Legion--Men-at-Arms--Volume-161-.pdf>
- <http://cavalldecartro.highlandagency.es/library/Playboy--MX---January-2013-.pdf>
- <http://fortune-touko.com/library/My-Dog-Tulip--New-York-Review-Books-Classics-.pdf>
- <http://transtrade.cz/?ebooks/Measurement-And-Representation-of-Sensations--Scientific-Psychology-Series-.pdf>
- <http://cambridgebrass.com/?freebooks/Sept-comme-setteur.pdf>
- <http://thermco.pl/library/Body-Dump--Kendall-Francois--the-Poughkeepsie-Serial-Killer.pdf>