

The Participatory Cultures Handbook

Edited by Aaron Delwiche and Jennifer Jacobs Henderson

THE PARTICIPATORY CULTURES HANDBOOK

How did we get from Hollywood to YouTube? What makes Wikipedia so different from a traditional encyclopedia? Has blogging dismantled journalism as we know it?

Our media landscape has undergone a seismic shift as digital technology has fostered the rise of "participatory culture," in which knowledge is originated, created, distributed, and evaluated in radically new ways. *The Participatory Cultures Handbook* is an indispensable, interdisciplinary guide to this rapidly changing terrain. With short, accessible essays from leading geographers, political scientists, communication theorists, game designers, activists, policy makers, physicists, and poets, this volume will introduce students to the concept of participatory culture, explain how researchers approach participatory culture studies, and provide original examples of participatory culture in action. Topics include crowdsourcing, crisis mapping, grid computing, digital activism in authoritarian countries, collaborative poetry, collective intelligence, participatory budgeting, and the relationship between video games and civic engagement.

New essays by:

Daren C. Brabham, Helen Burgess, Clay Calvert, Mia Consalvo, Kelly Czarnecki, Aaron Delwiche, David M. Faris, Dieter Fuchs, Owen Gallagher, Clive Goodinson, Alexander Halavais, Cynthia Hawkins, John Heaven, Jennifer Jacobs Henderson, The Janissary Collective, Henry Jenkins, Barry Joseph, Christopher M. Kelty, Pierre Lévy, Sophia B. Liu, Rolf Luehrs, Alice Mattoni, Patrick Meier, Jason Mittell, Sarah Pearce, Donatella della Porta, W. James Potter, Howard Rheingold, Suzanne Scott, Benjamin Stokes, Thomas Swiss, Paul A. Taylor, Will Venters, Jen Ziemke.

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CONTENTS

	ntributors knowledgments	xi xvii
	RT I troducing Participatory Cultures	1
1	Introduction: What is Participatory Culture? Aaron Delwiche and Jennifer Jacobs Henderson	3
2	The New Left and the Computer Underground: Recovering Political Antecedents of Participatory Culture Aaron Delwiche	10
3	From Participation to Power Christopher M. Kelty	22
	RT II nderstanding Participatory Fan Cultures	33
4	Wikis and Participatory Fandom Jason Mittell	35
5	Who's Steering the Mothership? The Role of the Fanboy Auteur in Transmedia Storytelling Suzanne Scott	43
6	The Guiding Spirit and the Powers That Be: A Response to Suzanne Scott Henry Jenkins	53

viii Contents

7	A Localization Shop's Tale: Bringing an Independent Japanese Role-playing Game to North America Mia Consalvo	59
	रा ॥ veraging Participatory Creativity	71
8	Collaborative New Media Poetry: Mixed and Remixed Thomas Swiss and Helen Burgess	73
9	Collaborative Comics: The Story Behind Pixton Clive Goodinson	82
10	The Assault on Creative Culture: Politics of Cultural Ownership Owen Gallagher	86
	RT IV ilding Cultures of Knowledge	97
11	The Creative Conversation of Collective Intelligence Pierre Lévy; Translation by Phyllis Aronoff and Howard Scott	99
12	Blogging as a Free Frame of Reference Alexander Halavais	109
13	Crowdsourcing: A Model for Leveraging Online Communities Daren C. Brabham	120
14	How Particle Physicists Constructed the World's Largest Grid: A Case Study in Participatory Cultures Sarah Pearce and Will Venters	130
	RT V stering Participatory Civic Cultures	141
15	Restructuring Civic Engagement: Meaningful Choice and Game Design Thinking Benjamin Stokes	143
16	The Future of Participatory Budgeting: Political Participation and Practicable Policy Rolf Luehrs and John Heaven	153
17	Participatory Democracy Dieter Fuchs	163

		Contents ix
18	Cultures of Participation in Social Movements Donatella della Porta and Alice Mattoni	171
	रा v। couraging Participatory Activism	183
19	From Cultures of Participation to the Rise of Crisis Mapping in a Networked World Sophia B. Liu and Jen Ziemke	185
20	Digital Activism in Authoritarian Countries David M. Faris and Patrick Meier	197
21	Activism on the Ground: Habitat for Humanity Cynthia Hawkins	206
	RT VII thinking Education in the Age of Participatory Culture	213
22	Participative Pedagogy for a Literacy of Literacies Howard Rheingold	215
23	Leveraging Digital Media to Create a Participatory Learning Culture among Incarcerated Youth Barry Joseph and Kelly Czarnecki	220
24	The Expanding Role for Media Literacy in the Age of Participatory Cultures W. James Potter	232
	RT VIII allenging the Boundaries of Participatory Culture	245
25	Participation and the Technological Imaginary: Interactivity or Interpassivity? Paul A. Taylor	247
26	Participatory Culture and Media Life: Approaching Freedom The Janissary Collective: Peter Blank, Watson Brown, Mark Deuze, Lindsey Ems, Nicky Lewis, Jenna McWilliams, and Laura Speers	257
27	Legal Constraints on Participatory Cultures in the United States: Anonymity, Concealment, and Revelation Clay Calvert	266

X	Contents	

28 Toward an Ethical Framework for Online Participatory Cultures	272
Jennifer Jacobs Henderson	
Index	281

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PART I Introducing Participatory Cultures

INTRODUCTION

What is Participatory Culture?

Aaron Delwiche and Jennifer Jacobs Henderson

Before you lies cyberspace with its teeming communities and the interlaced ramification of its creations, as if all of humankind's memory were deployed in the moment: an immense act of synchronous collective intelligence, converging on the present, a silent bolt of lightning, diverging, an exploding crown of neurons.

(Pierre Lévy, 1997, p. 236)

In 2006, the MacArthur Foundation launched a \$50 million initiative exploring the ways digital media were transforming the lives of young people. As part of this project, a research team headed by Henry Jenkins (2006) mapped the rise of "participatory culture" in contemporary society. In Confronting the Challenges of Participatory Culture: Media Education for the 21st Century, Jenkins and his colleagues explain that participatory cultures are characterized by "relatively low barriers to artistic expression and civic engagement, strong support for creating and sharing one's creations, and some type of information mentorship whereby what is known by the most experienced is passed along to novices" (p. 7). "A participatory culture," they add, "is also one in which members believe their contributions matter, and feel some degree of social connections with one another (at least they care what other people think about what they have created)" (p. 7).

One only need visit a local coffee shop or public library to see that people of all ages and backgrounds are increasingly active and engaged in participatory networks. Citizens around the world create and distribute messages via online and interpersonal networks at a rapid and everaccelerating rate. Armed with inexpensive tools for capturing, editing, and organizing, people tap into a vast ocean of real-time data and multimedia content to promote personal and political interests. Functions once monopolized by a handful of hierarchical institutions (e.g. newspapers, television stations, and universities) have been usurped by independent publishers, video-sharing sites, collaboratively sustained knowledge banks, and fan-generated entertainment.

To date, communication scholars and media literacy educators have focused primarily on the implications of participatory creative cultures, but this is just one aspect of a much larger cultural movement. Our world is being transformed by participatory knowledge cultures in which people work together to collectively classify, organize, and build information—a phenomenon that the philosopher Pierre Lévy characterizes as the emergence of collective intelligence. In our daily life, we engage with this form of participatory culture each time we seek guidance from

4 Delwiche and Jacobs Henderson

collaboratively updated websites that review books, restaurants, physicians, and college professors. Participatory knowledge cultures flourish on the Internet each time we exchange advice on programming, cooking, graphic design, statistical analysis, or writing style. These knowledge cultures have become an integral part of our lives; they function as prosthetic extensions of our nervous system and we often feel crippled when our access to these networks is curtailed. It is hard to believe that, for most of recorded history, human beings were unable to instantly find answers to questions such as "How long can I safely store cooked chicken in the refrigerator" or "What should I do about a second-degree burn?"

We are also witnessing the accelerated growth of participatory economic and political cultures. According to Yochai Benkler (2006)—former co-director of Harvard's Berkman Center for Internet and Society—cooperative actions "carried out through radically distributed, nonmarket mechanisms that do not depend on proprietary strategies" are radically transforming the information economy (p. 3). Citizen journalists collect and share information to report on news affecting their local communities. Dissidents use distributed communication technologies to organize political opposition in repressive regimes. Humanitarian workers and activists around the globe use geomapping technologies to monitor elections, coordinate relief efforts, and identify looming environmental disasters. Proponents of information transparency have used websites such as WikiLeaks to disseminate formerly secret documents, sparking riots and toppling governments in the process.

These phenomena generate important questions. As individuals, have we lost the right to keep our personal lives and political opinions secret? What happens to anonymity and privacy in an age of ubiquitous connection? What about intellectual property laws that inhibit our ability to access and communicate within these networks? Is it possible that the illusion of participation in this brave new world cloaks fundamental passivity? What if people don't want to participate? Where is the checkbox that allows us to opt out?

Four Phases of Participatory Culture

Academics often think in terms of disciplinary boundaries, but participatory-culture studies are more properly thought of as an emergent, interdisciplinary project. As early tremors rippled across our global media and technology landscapes, scholars across disciplines noticed common patterns and began referencing each other's work. In fact, some of the most useful research on this topic never uses the phrase "participatory culture." For decades, researchers have been writing about contribution, collaboration, and collective knowledge. In an attempt to get a handle on recent scholarship that provides the foundation for this collection, we suggest that participatory culture studies can be divided into four distinct phases.

Phase One. Emergence (1985–1993)

During the second half of the 1980s, our global communication landscape was already beginning to manifest signs of impending transformation. Personal computers had found their way into the living rooms and offices of ordinary citizens, and networking these machines with one another was the next logical step. ARPANET (the precursor to the civilian Internet) grew exponentially on college campuses and military institutions, and virtual communities emerged in dial-up bulletin board systems (BBS), the Whole Earth 'Lectronic Link, and FidoNet. College radio stations, mix tapes, and independent record labels intersected with the underground music scene. Meanwhile, the advent of laser printers and page layout software put small-scale publishing in the hands of ordinary citizens, accelerating the growth of a vibrant zine subculture.

As these changes unfolded, a growing body of academic research challenged the traditional view of citizens and media audiences as largely passive. In the influential *Television Culture* (1987), John Fiske argued that television viewing audiences regularly resisted, subverted, and recoded the meanings of popular entertainment programs—a process he termed "semiotic democracy." Within Fiske's vision, "individuals can become both producers and creators, able to reinscribe and recode existing representations" in a public domain that invites everyone to participate "equally in the ongoing process of cultural production" (Katyal, 2006, p. 3). A similar vision of active audiences was articulated by a promising young scholar named Henry Jenkins—a graduate student who worked with Fiske. Analyzing the behaviors of mostly female Star Trek fan fiction writers, Jenkins (1988) argued that these women should be thought of as "textual poachers" who reshape the meanings of cultural products to serve their own needs. Deepening these arguments in his book Textual Poachers: Television Fans and Participatory Culture (1992), he became one of the most recognizable thinkers associated with fan culture studies. However, as Jenkins is quick to point out, he was part of a larger movement that included Ien Ang's (1985) Watching Dallas: Soap Opera and the Melodramatic Imagination, Janice Radway's (1984) Reading the Romance: Women, Patriarchy, and Popular Literature, and Camille Bacon-Smith's (1991) Enterprising Women: Television Fandom and the Creation of Popular Myth.

Meanwhile, journalists, scholars, and science fiction writers were taking note of the nascent computer subculture. Anticipating themes that would emerge in subsequent definitions of participatory culture, Steven Levy's Hackers: Heroes of the Computer Revolution (1984) argued that computer hobbyists and the technology industry itself were influenced by a "hacker ethic" that celebrated access to technology, the free flow of information, decentralized networks, creative expression, and self-actualization. Howard Rheingold—a technology writer and cultural critic who participated actively in the Whole Earth 'Lectronic Link-coined the term "virtual community" in a 1993 book of the same name that explained on-line computer networks to a general audience. In 1987, Microsoft Press published an updated version of Ted Nelson's Computer Lib/Dream Machines—a ground-breaking manifesto dedicated to the radical proposition that everyone is capable of understanding how to program their own computers.

Phase Two. Waking up to the Web (1994–1998)

Twenty-five years after the Defense Advanced Research Projects Agency began networking mainframe computers and military researchers, the American public began paying attention to what TIME magazine referred to as "the strange new world of the Internet." No longer shackled by a clumsy text interface, the advent of graphical web browsers such as Mosaic made it possible for people to easily search the Internet and create their own web pages. Netscape was the most well-known of the new web browsers, and the company's initial public stock offering was wildly successful, kick-starting a speculative technology bubble (the "dot-com bubble") that lasted five years. These transformative years witnessed the birth of the Internet Movie Database (1993), Yahoo (1994), web-based electronic mail (1994), the Linux operating system (1994), Amazon (1994), streaming audio (1995), Craigslist (1995), eBay (1995), and Google (1996).

The scope and speed of these transformations in our media landscape captured the attention of scholars across disciplines. Working at a macroscopic level, the sociologist Manuel Castells mapped the rapidly changing global infrastructure in The Rise of the Network Society (1996), The Power of Identity (1997), and End of the Millennium (1998). His core message—the notion that decentralized participatory networks were transforming the ways we work, learn, and play—was indirectly supported by a series of more locally focused case studies. Stephen Duncombe's (1997) Notes from Underground: Zines and the Politics of Alternative Culture argued that emerging networks of amateur

publishers represented a "crack in the seemingly impenetrable wall of the system" and could be interpreted as "a culture spawning the next wave of meaningful resistance" (p. 3). Nancy Baym (1985) appropriated ethnographic research methods from the field of anthropology to document the norms, behaviors, and conversational themes of soap opera fans who posted in Usenet forums. In *Life on the Screen: Identity in the Age of the Internet* (1995) the psychologist Sherry Turkle investigated the interactions of gamers in text-based virtual worlds, suggesting that these spaces could be used as tools for identity experimentation and personal growth. These seemingly disparate case studies were united by their authors' bold insistence that seemingly frivolous social networks were worthy of serious scholarly analysis. Duncombe, Baym, and Turkle demonstrated that the practices and cultural expressions of these amateur publishers, soap opera fans, and computer gamers were both interesting and important. If the first wave of researchers had unlocked the door to participatory culture studies, this second wave kicked the door off its hinges entirely.

Phase Three. Push-button Publishing (1999–2004)

Although it is relatively easy to create web pages with HTML, the mystique surrounding computer programming frightened many people away from creating their own web sites. The advent of user-friendly web publishing systems such as Blogger (1999), LiveJournal (1999), and Xanga (2000) almost completely obliterated remaining barriers to entry, increasing the number of potential participants by several orders of magnitude. During these transitional years, we witnessed the emergence of Napster (1999), the game EverQuest (1999), the iPod (2001), the BitTorrent protocol (2001), the social virtual world Second Life (2003), MySpace (2003), Flickr (2004), Yelp (2004), and Facebook (2004). Though some of these platforms have already crumbled or mutated beyond recognition, each represented a significant step forward in the ability of citizens to share, annotate, publish, and remix digital information.

On the academic front, there were two noticeable strands of research on participatory culture during this phase. The first strand was composed of mostly qualitative case studies. Shifting attitudes about what constituted legitimate research topics, combined with increasingly refined tools and methodologies for studying on-line communities, generated a tsunami of fandom studies on topics ranging from Buffy the Vampire Slayer (Hill & Calcutt, 2001) and Doctor Who (McKee, 2001) to Hello Kitty (McVeigh, 2000) and Pokemon (Willett, 2004). A second strand explored macroscopic patterns, interconnections, and technological underpinnings of participatory culture. In the English translation of Collective Intelligence: Mankind's Emerging World in Cyberspace (1999), the Canadian philosopher Pierre Lévy identified the existence of a "universally distributed intelligence, constantly enhanced, coordinated in real time, and resulting in the effective mobilization of skills" (p. 13). Pointing out that "no one knows everything" and "everyone knows something," Lévy argued that it was now possible to create democratic political structures in which people could participate directly as unique individuals rather than as members of an undifferentiated mass. Howard Rheingold drew similar conclusions in Smart Mobs: The Next Social Revolution (2002), predicting that "large numbers of small groups, using the new media to their individual benefit, will create emergent effects that will nourish some existing institutions and ways of life and dissolve others" (p. xiii). Though optimistic about the potential, he also highlighted such risks as the loss of privacy and the deterioration of private life that one might encounter in a world saturated with network connections.

Phase Four. Ubiquitous Connections (2005–2011)

Made possible as a result of widespread broadband Internet connections, the video-sharing site YouTube (2005) introduced global citizens to a meme-filled world of sneezing pandas, awkward

pre-teens, and piano-playing felines. Users immediately bent the platform to their own purposes, experimenting with new forms of citizen journalism, creating performance art projects, designing mash-up music videos, and sharing DIY tutorials on a wide range of topics. No longer constrained to print or audio, digital publishing became transmedia publishing. At roughly the same time, mobile phones were evolving into small hand-held computers with powerful multimedia capabilities. The iPhone (2007), the Android operating system (2008), and the iPad (2010) each played a part in this revolution.

During this most recent phase, researchers have tempered their hopes about the positive potential of participatory culture with an acknowledgment of the many challenges that characterize our increasingly networked existence. In Free Culture: The Nature and Future of Creativity (2004), the legal scholar Lawrence Lessig argued that a problematic conceptualization of intellectual property undergirds a draconian regulatory framework which stifles creativity, inhibits popular democracy, and limits the autonomy of the very people it is supposed to protect. Yochai Benkler (2006) made a similar case in The Wealth of Networks, hailing "new opportunities for how we make and exchange information, knowledge and culture," while calling on his readers to pay close attention to the laws and institutions that influence the "institutional ecology of the digital environment" (p. 2). During this period, Henry Jenkins's (2006) Convergence Culture further developed the author's ideas about the intersection of media convergence, participatory culture, and collective intelligence; a cross-over hit, the book helped make these ideas accessible to a general audience. However, noises of doubt emerged from unexpected quarters. In Alone Together (2011), Sherry Turkle argued that ubiquitous technology penetrates every nook and cranny of our lives, leaving us alienated and indifferent. "We expect more from technology," she writes, "and less from each other" (p. 113).

About This Book

As we begin dipping our big toe into Pierre Lévy's "knowledge space," we are confronted with exponentially expanding information, connections, and potential. What shall become of that potential is yet to be known. As many authors in this collection suggest, it might be an expansion of creativity, scientific knowledge, civic engagement, and activism. Or, if others are correct, it could spiral into incivility, passivity, and exclusion. While we cannot see the future clearly, we do know that grappling with these participatory cultures requires new ways of speaking about information, new methods of education, and a rethinking of traditional ownership structures.

Just as Lévy describes our current situation as the "knowledge space" set astride the "commodity space," we also see hybrid creator/consumers of media working alongside traditional media producers and the new theories arising from participatory culture (e.g. informationalism, collective intelligence, transmedia narrative) intersecting with traditional understandings of our postmodern condition. Few doubt that this is a time of transition. This book seeks to be both a snapshot of that transition and a speculative probe into possible futures.

When we recruited authors to participate in this collection, we emphasized three principles. First, these chapters are intended to be accessible to all readers, and therefore free of specialist jargon. This does not mean that the ideas are simple. Readers might occasionally need to look up unfamiliar words or references. However, all of the contributors to this collection share a desire to be understood. Second, to the extent possible, all the contributors have steered away from an emphasis on specific technological platforms. Technology ages quickly; today's buzzwords may be forgotten or laughable tomorrow. By the time this book reaches your hands, your technological landscape might look very different than that of 2012. Yet, the underlying principles, patterns, and challenges endure. Third, you will note that this collection synthesizes contributions from a wide range of disciplines. Geographers. Physicists. Economists. Poets. Game designers. Activists.

Computer pioneers. Cartoonists. The world around us is less constrained than ever by disciplinary boundaries, a condition reflected in this collection.

This book is organized into seven sections. These sections explore fan subcultures, participatory creativity, knowledge cultures, civic engagement, activism, and looming challenges on the boundaries of participatory culture. You are welcome to read the chapters in order, though we find it highly unlikely that most readers will do so. The advent of the web, with its decentralized hyperlinks and stream-of-consciousness lateral browsing, highlighted an unspoken truth about the relationship between authors and readers: we have absolutely no control over how you choose to use this book. You, the audience, are unpredictable, and may choose to consume and participate on your own terms.

At the broadest level, this book wrestles with the hopes, the stumbling blocks, and the potential pitfalls of participation in our rapidly changing world. It is both idealistic and realistic; it is both optimistic and cynical. While recognizing that we are hardly on the brink of Utopia, we agree with Pierre Lévy (1997) that "a new communication space is now accessible, and it is now up to us to exploit its most positive potential on an economic, political, cultural, and human level" (p. ix).

The following pages contain essays from some of our favorite thinkers. Many you know by name; others you may not yet have discovered. They are not housed in one discipline, and certainly not in one university. Their commonality lies in their ability to see a world where participation thrives—on-line and off. As a result, we hope that you will bump into ideas you didn't set out to find. All too often readers forget to browse the stacks, turning instead to recommendations, stars, tomatoes, and "likes." When was the last time you found a new favorite author because a book had been placed on the wrong shelf? When was the last time you picked out your next novel based solely on the beautiful lettering on its binding? We hope this volume reminds you of how wonderful it is to stumble across new concepts and beautiful language. And, of course, how important it is to participate.

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THE NEW LEFT AND THE COMPUTER UNDERGROUND

Recovering Political Antecedents of Participatory Culture

Agron Delwiche

January 1968: Hundreds of students from Caltech University march through the streets of Burbank. They wave banners, torches and picket signs. Some carry guitars. Their chants fill the streets. Young people raise their voices; they demand to be heard. Despite the emotional intensity, everyone is in a good mood. The crowd chants their demands, but they are also laughing. Bystanders smile as they pass. Today, there will be no tear gas. No salt pellets. No riot police. Just pointy ears.

Few in this crowd anticipate the bleak events that will unfold during the months ahead. Demonstrations will erupt around the globe. Three months from now, Martin Luther King Jr. will be slain on the balcony of the Lorraine Motel. Five months from now, not far from this very spot, Robert F. Kennedy will be killed moments after sweeping the California primaries. Tanks will roll into the streets of Paris, Warsaw, Mexico City, Tokyo, and Prague. In the streets of Chicago, riot police will gas protesters and beat journalists with truncheons. By all measures, it will be a very bad year.

At this moment, the students are more concerned with the fate of James T. Kirk, Spock, and the United Federation of Planets. NBC plans to cancel their favorite television program, and the students are outraged. "Draft Spock!" chants one student. "It is totally illogical to cancel Star Trek" proclaims another. And the good news is that—on this issue at least—the students will succeed. *Star Trek* will survive.

This apparently frivolous *Star Trek* demonstration in Burbank is an important moment of cultural history. If passionate fans had failed to save the program, a University of Wisconsin graduate student named Henry Jenkins (1988) might never have published "*Star Trek* rerun, reread, rewritten: Fan writing as textual poaching" in *Critical Studies in Mass Communication*. He wasn't the first communication scholar to challenge obsolete assumptions about passive media audiences, but Jenkins's essay became the basis for the book *Textual Poachers* (1992), sparking a wave of media fandom studies in the process.

The *Star Trek* demonstration is also a useful marker for thinking about the differences between the early and late stages of the 1960s youth movement. The students marching on NBC Universal expressed earnest optimism, cosmopolitan open-mindedness, and peaceful determination. These traits were closely associated with *Star Trek*'s unique brand of liberal futurism, and they were also core values of the early New Left before movement leaders took their eyes off the prize.



FIGURE 2.1 Caltech students protest the cancellation of Star Trek in January 1968 Source: photo by Harry Chase/Los Angeles Times Archive/UCLA.

The most exciting thing about this anecdote is the reminder that the grassroots activism and participatory practices expressed by Star Trek fans were firmly situated within the cultural and political climate of the 1960s. This is not a coincidence. The values and technologies that characterize contemporary fan subcultures are the direct outgrowth of participatory ideals articulated by the New Left and youth counterculture.

For several decades, researchers have explored fan communities that use social media and online forums to celebrate, decode, and transform beloved media texts (Jenkins, 1992; Mittell, 2003; Gray, 2010). As this area of study emerged, scholars articulated common understandings about participatory culture's characteristics and origins. Working inductively from a rich collection of case studies and local ethnographies, researchers have demonstrated that participatory cultures are characterized by commitment to access, expression, sharing, mentorship, the need to make a difference, and the desire for social connections (Jenkins, et al., 2009). Scholars have also attempted to sketch the recent history of these social groupings. According to the most widely accepted narrative, participatory subcultures became increasingly visible in the 1980s as a result of three intersecting factors: 1) the horizontal integration of media conglomerates, 2) the emergence of technologies enabling the archival, annotation, and recirculation of media content, and 3) the influence of subcultures that celebrate a do-it-yourself (DIY) ethic.

This explanation is compelling and well argued, but it raises certain questions. Why this particular constellation of values? Why does access go hand in hand with expression? How are these terms linked to social connection, sharing, and the desire to make a difference? Where did all of this energy come from?

The established narrative lacks a crucial component: it has no beginning. It is a superhero comic book without an origin story. This absence is remarkable; the missing bits are fascinating. Just as Peter Parker's fate was determined by a bite from a radioactive spider, and just as Clark Kent's future was shaped by his parents' decision to hurl him across the galaxy, the most exciting elements of our contemporary media landscape are at least partially indebted to a handful of young activists who gathered for a summer retreat at the FDR Camp in Port Huron, Michigan, in 1962.

A Democracy of Individual Participation

Approximately five dozen members of Students for a Democratic Society (SDS) met in Port Huron in 1962 with the goal of producing a searching critique of contemporary politics and culture. Working from a detailed draft authored by Tom Hayden, they produced the *Port Huron Statement*. Eloquent and politically sophisticated, this "unabashedly middle class" document "thoroughly plumbed and analyzed the conditions of mid-century American society" and "shaped the spirit of the new student mood" (Sale, 1973, p. 50).

Authored at the peak of the "American Century" by privileged, well-educated, and mostly white college students, the statement blended familiar political topics (the military industrial complex, racial discrimination, and poverty) with humanistic musings on loneliness, isolation, and dehumanization (Roszak, 1995). In one of the most well-known passages, the authors placed participatory democracy at the center of their analysis:

We seek the establishment of a democracy of individual participation, governed by two central aims: that the individual share in those social decisions determining the quality and direction of his life; that society be organized to encourage independence in men [sic] and provide the media for their common participation.

(Sale, 1973, p. 52)

Of course, this dream was not entirely new. Participatory democracy was not invented by a handful of college students in 1962. What was original about the *Port Huron Statement* was the way that Hayden and his co-authors stitched together strands from multiple theoretical traditions; these included John Dewey's vision of active publics (Berman, 1996), C. Wright Mills's (1958) celebration of free associations as the lifeblood of authentic democracy, and community organizing practices pioneered by the Student Nonviolent Coordinating Committee (SNCC) and the civil rights movement (McMillian, 2011). Taken as a whole, it was a bold new vision.

The audacity of this vision was evident in the statement's approach to emerging technologies. Just two years earlier, in his farewell address to the nation, President Dwight D. Eisenhower had warned against the domination of public policy decisions by a scientific-technological elite. SDS leaders shared this concern, but they were hardly Luddites. Recognizing that the problem was technocracy—not technology—they carefully distinguished machines themselves from the "regime of experts" that deployed them. Anticipating the critique that the statement's demands were idealistic and far-fetched, they explained that new technologies were a plausible mechanism for achieving their objectives. Decades before the advent of the Internet, personal computers, and online forums, they called for mechanisms of voluntary association, civic participation, and public information dissemination. They also advanced the radical suggestion that governments could be made more accountable to citizens through the use of decentralized technological structures "based on the vision of man as master of his machines and society."

The Long Sixties (1958–1974)

An opening shot across the bow of the established political order, the Port Huron Statement was one the most important developments during the early years of a period that historian Arthur Marwick (1998) terms "the long Sixties." Even from our vantage point on the other side of the millennium, this era is highly mythologized by those on all sides of the political spectrum. Some view the long Sixties as a hedonistic tragedy in which a disrespectful youth movement corrupted society's moral compass and initiated years of cultural decline. Some are more celebratory, arguing that popular uprisings ended an unjust war and made it possible for disenfranchised citizens to participate fully in American democracy. Others hover somewhere near the middle of these two caricatured perspectives.

However, for many people—certainly for most born after Watergate—the decade is shrouded in the grainy cinematography one might find in an old movie. All history is mediated, butperhaps due to the explosive growth of electronic communication technologies at the very same time—representations of the 1960s seem particularly prone to distortion. For younger, contemporary audiences, the decade is a hazy assemblage of decontextualized and improperly sequenced signifiers: peace signs, martini glasses, long hair, Hendrix at Woodstock, go-go boots, jungle helicopters, and pitched battles in the streets. Like the protagonist in Dylan's "Ballad of a Thin Man," we know something happened then. We just don't know what it was.

History textbooks used in American classrooms are not much help. For the most part, they subordinate intellectual foundations of the student movement to hyperbolic descriptions of "bad drug trips, sexually transmitted diseases, loneliness and violence" (Henretta et al., 2006, p. 893). These books rarely discuss the movement's textured demands, instead reducing the students' political message to the simplistic mantra "peace and love." This collective amnesia should be deeply troubling to serious students of politics and culture. After all, the core values that defined the early student movement—the insistence on authentic participation and humanized technology—were a potent call that echoed around the world.

Consider the global political struggles that erupted in 1968. From Warsaw to Prague, students and artists in the Eastern Bloc agitated for greater intellectual freedom. In France, student uprisings at the University of Nanterre and Sorbonne University triggered protests across all sectors of society, nearly toppling the De Gaulle administration. Medical students occupied the Yasuda Auditorium clock tower at Tokyo University, spreading student strikes and riots to almost 200 universities across Japan (Steinhoff, 1999). In Mexico City, a series of popular demonstrations in support of university autonomy culminated in the Tlatelolco Massacre of nearly four dozen protesters. These were all different struggles, to be sure, but they were all driven by the demand for authentic participation.

In hindsight, this transcendent yearning for political participation was just as important as the ideological polarities undergirding the Cold War during the second half of the 20th century. The philosopher Hannah Arendt (1970) concluded that the New Left's early emphasis on participatory democracy represented "the best in the revolutionary tradition" and "constituted the most significant common denominator of the rebellions in the East and the West" (p. 54). The global desire for meaningful participation is a thread connecting the struggles of 1968 with one another, but it also connects them to the Eastern Bloc upheavals of 1989 and to the more recent wave of protests throughout the Middle East.

Given its importance, one wonders how so many people could forget the deeper stakes that were linked to this moment in our political history. The psychological state known as "trauma" might have something to do with it. Amnesia is one response to deeply disturbing events, and the violent clashes of the late 1960s and early 1970s were nothing if not traumatic. When one



FIGURE 2.2 Students and teachers at the University of Mexico call for greater autonomy (August 1968)

scrutinizes photographs from global popular uprisings of this time, the images are depressingly uniform. Tanks. Tear gas. Riot police. Truncheons splitting skulls. Demonstrators hurling Molotov cocktails. Blood-drenched students mourning the loss of their friends. These signifiers transcend left-wing/right-wing binaries. The underlying message, the immutable truth, is brutal. These are pictures of naked violence; taken together, they constitute a tapestry of repression.

This is where the story takes an interesting turn. Confronted with increasingly intense repression by the state, a fragmented student movement lost its grip on the substantive and procedural aims that defined its early existence. If the state would not respond to demands of its citizens, a different strategy was needed. In 1969, a militant faction of SDS leaders proclaimed themselves the Weathermen, declared war on the United States government, and announced plans to "lead white kids into armed revolution" (Dohrn, 1970). Other factions followed a similar route. In his history of the SDS, Kirkpatrick Sale notes that, in the 1969–70 school year, there were "174 major bombings and attempts on campus, and at least 70 more off-campus incidents associated with the white left – a rate of roughly one a day" (p. 632). In May 1970, following the Kent State massacre, 16 states activated the national guard 26 times at 21 universities, and "30 ROTC buildings on college campuses were burned or bombed at the rate of more than four every single day" (p. 637).

President Nixon, the FBI, and the militant New Left disagreed on almost everything, but they shared a disturbing tendency to reduce political action and revolutionary change to a clash of physical forces. If one were to agree with this philosophical approach—if pitched battles in the streets would determine the ultimate victors of the long 1960s—the established order would seem destined for victory. After all, the state had a near monopoly on guns, tanks, bombs, prisons, and other tools of physical violence. Law and order candidates such as Ronald Reagan used

political unrest as a springboard to national power, and it seemed that the movement had truly lost.

Alienated by the violence, the movement's rank-and-file members headed in multiple directions. Many retreated from politics altogether. By 1976, Seymour Lipset was able to say of American college campuses that "students are working hard, are competitively concerned for grades, and pay little heed to politics" (p. xxvii). The New Left's critics welcomed these events as proof that the notion of participatory democracy was little more than a pipe dream. The movement activists had failed to make their vision permanent. In the pages of Time magazine, even Tom Hayden wondered "how could we accomplish so much and have so little in the end?" (1977, p. 67).

However, if the optimism that fueled the movement's most noble aspirations had sometimes been exaggerated, Hayden's pessimistic declaration of failure was equally overstated. The story was still unfolding. In understanding the nature of the movement's long-term accomplishments, we can restore the missing gaps in the history of participatory culture.

In suspense thrillers and action movies, one occasionally stumbles across the trope known as "the false protagonist." Throughout the story, the audience follows one protagonist toward his objective. In the final moments, the apparent hero stumbles and fails. As members of the shocked audience, we wonder if this story will surprise us with an unhappy ending. Then, we realize that the writer has tricked us. A secondary character—some friend of the protagonist—emerges from the periphery and saves the day. She casts the ring into the lake of fire. She smuggles the microfilm across the border. We realize that unsung sidekicks were the heroes all along.

Life is not a movie, and the path of cultural and political change is never clear cut. But history is just another story, and popular tropes can aid our interpretations—if only as thought experiments. The movement celebrities and leaders of the New Left played an important role in the struggle, but they were not the sole protagonists. Many years later, one of the founding members of the Weather Underground drew the same conclusion in an essay about the movement's tendency to idolize revolutionary figureheads:

We don't need great revolutionary heroes—they actually get in the way—but ordinary people taking countless small acts such as talking to their neighbors in order to create the mass movements we need for social change.

(Rudd, 2008, para. 43)

Indeed, the activists who made the most difference were those who fanned out across the nation, spreading the seeds of participatory culture and radically transforming the world in which we live. They created "free universities, free clinics, food conspiracies, the underground press, collectives, communes, tribal families, [and] alternate vocations" and "even the technology that was the dominant culture's pride came in for rethinking and remaking" (Roszak, 1995, p. xxvii). Personal computers and digital networks—technologies fueling the growth of participatory culture—were the direct outgrowth of these highly political efforts.

Participatory Culture under Our Skin

Stepping back for a moment, we can revisit the intellectual and strategic topography of the movement during the tumultuous years that followed the crackdowns of 1968. Clear-headed observers recognized that a full frontal assault on the establishment was doomed to failure. At the same time that high-profile radicals made headlines with prison breakouts, bank robberies, and bombings, many movement intellectuals adjusted their tactics to the new political reality.

TABLE 2.1 Subversive Power of New Media

Repressive use of media	Emancipatory use of media
Centrally controlled program	Decentralized program
One transmitter, many receivers	Each receiver a potential transmitter
Immobilization of isolated individuals	Mobilization of the masses
Passive consumer behavior	Interaction of those involved, feedback
Depoliticization	A political learning process
Production by specialists	Collective production
Control by property owners or bureaucracy	Social control by self-organization

Source: Enzensberger, Hans Magnus. 1970. "Constituents of a theory of media," New Left Review, I(64).

In a prescient article for *New Left Review*, Hans Magnus Enzensberger (1970) mercilessly dissected the left's traditional skepticism of electronic media. "For the first time in history," he argued, "the media are making possible mass participation in a social and socialized productive process, the practical means of which are in the hands of the masses themselves" (p. 15). "Every transistor radio is, by the nature of its construction, at the same time a potential transmitter" but this is "consciously prevented for understandable political reasons" (p. 15). A truly revolutionary plan, he explained "should not require the manipulators to disappear; on the contrary, it must make everyone a manipulator" (p. 20). Although he did not use the phrase "participatory culture," a more concise definition of the term is difficult to imagine.

The Yippie activist Abbie Hoffman (1980) also realized that culture and communication were crucial vehicles for political transformation. Reflecting on this insight several years later, he wrote:

A modern revolutionary group headed for the television station, not for the factory. Information was more than a news show; it was punches on an IBM card, scratches on magnetic tape, music, sex, family, schools, fashions, architecture. Information was culture, and change in society would come when the information changed. We would make what was irrelevant relevant. What was outrageous, commonplace. Like freaked-out Wobblies, we would build a new culture smack-dab in the burned out shell of the old dinosaur. (p. 86)

And so he did. Declaring that it was time to transform "improper control of communication in this country," Hoffman and Al Bell launched a newspaper called *Youth International Party Line (YIPL)* in 1971. In the first issue, Hoffman (1971a) made it very clear that this was a conscious political tactic. "We did *not* turn our backs on the movement for change," he announced. Later, Hoffman (1971b) explained that "we are attempting to bridge the communication gap generated by monopolies like the BELL SYSTEM, and American mass media too" promising to "spread information that we feel cannot be spread adequately through other means" (p. 3).

One of the first examples of what would eventually be termed "the hacking subculture," the YIPL supplemented technical blurbs about phone phreaking with short articles exhorting readers to become involved in other areas of the movement. In one issue, Hoffman asked readers to contribute blank cassette tapes that New York-based WPAX could use to create rock, soul, rap, and education tapes that could be shared with "our people serving in Nam" (p. 3). Several months later, anticipating the "user-generated-content" mantra by more than three decades, Hoffman

(1971c) asked readers to send in any information about phones, food, transportation, and entertainment with the goal of the publication eventually becoming "totally reader supplied" (p. 1). Subsequent issues (Hoffman, 1972) deputized readers to create their own local chapters of the Youth International Party Line, urging them to "work with health clinics, food coops, libraries, headshops, day care centers, collectives, radio stations, newspapers, bookstores, or any communications medium" (p. 1).

The underground press continued to serve as a vital force during this period. The historian John McMillian argues, in Smoking Typewriters (2011), that underground newspapers tied to the New Left played an essential role in circulating the movement's message while circumventing mainstream media filters. The underlying technologies—scissors, rubber cement, and the off-set printing revolution enabling "creatively designed layouts, whereby prose could be fitted around swirling drawings and photo collages" -- anticipated the cut-and-paste and sampling techniques witnessed in contemporary participatory cultures (p. 7). Many of the newspapers were decentralized collectives in which both content and production were opened up to anyone who expressed interest in participating.

Meanwhile, participatory democracy and computers were merging with one another in the form of experimental education. Between 1967 and 1971, an eclectic network of community organizers, educators, and activists coordinated the Midpeninsula Free University (MFU) to foster "the emergence of a new politics, a new religion, a new education, a new economy, and a new version of humanity based on libertarian, democratic, and communitarian values" (Shugart et al., 1967, p. 3). Organized around the principles of participatory democracy articulated by the New Left, the school taught more than 100 courses on topics ranging from "American Radical Movements," "Computers Now," "Gardening for Amateurs," and "Participatory Salad." Many of the hackers and activists affiliated with the MFU eventually became key players in the Silicon Valley's computer revolution. Larry Tesler, who taught the course "How to end the IBM Monopoly," later worked for Apple Computer where he helped build the Apple Lisa and the Macintosh Plus. Jim Warren, who taught courses on intentional communities and "compassionate gentleness," co-founded the West Coast Computer Faire and launched the very first monthly software magazine.

Similar efforts were underway in Berkeley, California, as politicized engineers and programmers pursued the Community Memory project. Their goal was to build "a communications system which allows people to make contact with each other on the basis of mutually expressed interests without having to cede judgment to third parties" (Levy, 1984, p. 156). Described by Steven Levy as "sort of a squashed piano, the height of a Fender Rhodes, with a typewriter keyboard instead of a musical one" the Community Memory terminal was deployed in Leopold's Records on Telegraph Avenue and opened up to community access.

Wildly successful with local residents, the conversations enabled by Community Memory were early forerunners of the interactions one might find in online forums and the comments threads of contemporary web sites. There was, however, one crucial difference. In the 1970s, Berkeley residents were pleasantly surprised by technologies that gave them the ability to interact with one another in unprecedented ways. Today, audience members simply expect that such conversational tools will be available on even the most mainstream web sites.

Emerging technologies also intersected with political motivations in the nearby Homebrew Computer Club. The organization was co-founded by Fred Moore, a seasoned activist who had been one of the very first students to speak out against the presence of the military on college campuses. In 1959, appalled by compulsory ROTC enrollment policies at UC Berkeley, Moore fasted for two days on the steps of the campus administration building. More than 1300 students signed his petition, lending their support to what some have characterized as "the opening



FIGURE 2.3 Community Memory Tool in Leopold's Records on Berkeley, *ca.* 1975 *Source:* image courtesy of Computer History Museum.

political act of the 1960s" (Markoff, 2005, p. 38). Nearly fifteen years later, Moore's computer club was a model of participatory culture and information sharing. Participants exchanged algorithms and design concepts, and "one person's idea would spark another person into embarking on a large project" (Levy, 1984, p. 218). At one club meeting in 1975, an engineer named Dan Sokol supplied a fellow hacker with a box of unused Motorola-compatible computer chips. The hacker's name was Steve Wozniak. Working closely with his childhood friend Steve Jobs, Wozniak stitched these chips together into a circuit board that ultimately became the basis for the Apple II computer.

The notion that individual citizens might someday desire their own personal computers was itself revolutionary, but these machines were still disconnected from one another. As computers became more ubiquitous, technology activists focused their attention on ways that individual machines could be linked up with one another to transform "consciousness and community" (Turner, 2005, p. 489). The Defense Advanced Research Projects Agency (DARPA) had demonstrated that computer networks were possible, but their systems were only available to a handful of scientists and military researchers. Computer hobbyists realized that there must be other ways of accomplishing the same thing.

One networking alternative, FidoNet, was developed by Tom Jennings in 1984. A computer programmer with a penchant for punk rock, Jennings designed an open protocol for freely exchanging messages between bulletin board systems. FidoNet rapidly became a global network, and it was one of the first non-military systems that made it possible for users on opposite sides of the world to participate in online forums and exchange electronic mail. A second network took the form of the Whole Earth 'Lectronic Link (WELL). Co-founded by Stewart Brand, editor of

the Whole Earth Catalog and occasional guest lecturer at the MFU, the WELL offered an early taste of the virtual communities that would capture the American consciousness in the 1990s. The WELL was firmly rooted in participatory culture, with founding principles that included selfgovernance, community connections, user-driven design, open-endedness, and low barriers to access. Power was deliberately decentralized and the network's programmers carefully embedded "a countercultural conception of community" into the entire fabric of the system (Turner, p. 498).

Putting the Politics Back in Participatory Culture

This essay is not the first attempt to document the cultural and intellectual currents that helped create our contemporary media landscape. Steven Levy (1984) covers similar ground in his book Hackers: Heroes of the Computer Revolution, as do John Markoff (2005) in What the Dormouse Said: How the 60s Counterculture Shaped the Personal Computer Industry and Fred Turner (2006) in From Counterculture to Cyberculture. However, while some theorists acknowledge connections between the counterculture and contemporary participatory culture, they almost always downplay the political dimensions. This is particularly surprising because the notion of participation is intrinsically political.

Jenkins (2002) briefly acknowledges the influence of the New Left's alternative media practices, but he pays little attention to the many similarities between the student movement and contemporary fan subcultures. Turner (2005) goes even further, explicitly arguing that the New Left's emphasis on "building new political parties and engaging in political struggles" was less significant than the counterculture's emphasis on transforming human consciousness.

Tensions between political and cultural segments of the youth movement have been widely documented. The so-called "hippie-yippie split" reflects the truth that some people are more interested in politics than others. But politics and culture are interdependent and inseparable aspects of the human condition. Recognizing that "the political movement and counter-culture are often treated as if they were separate creations of the sixties," Robert Pardun (2001) emphasizes that "they are really different ends of a spectrum of ideas about how to the change the world." In fact, "the political radicals and the cultural radicals were overlapping parts of the same community, resulting in a movement that was very experimental as it challenged authority and tried to change the world" (p. 2).

This was, ultimately, the key to the movement's victory. Even during the 1980s, when the movement appeared to have lost, the New Left's procedural and substantive yearnings found expression in other arenas. Creative cultures flourished beneath the surface of the mainstream media; many of these cultures were nurtured and extended by mimeographed zines. "While the Left was left behind, crumbling and attracting few new converts," writes the cultural historian Stephen Duncombe (1997), "zines and underground culture grew by leaps and bounds" (p. 3). The seemingly apolitical nature of these subcultural projects helped to further embed participatory culture into the practices of daily life. "Unlike a political treatise or a demagogic speech," notes Duncombe, "the politics of culture never announce themselves as political. As we live our lives and take pleasure in our entertainment, the politics expressed through culture become part of us, get under our skin, and become part of our common sense" (p. 175).

"The Marxists are so busy looking for a revolution which could not happen that they miss the fact that another kind of revolution did happen," argued the historian Arthur Marwick (1998). It was a revolutionary transformation "of the material conditions, lifestyles, family relationships, and personal freedoms for the vast majority of ordinary people" (p. 15).

Ultimately, in the ways that matter most, the activists won when no one was paying attention. The fact that so few people registered their accomplishments is a testimony to the depth of the social transformations. As we gaze nervously toward the coming decades, retrieving the lost history of participatory culture is an essential task. In repudiating the myth of the movement's failure, this narrative demonstrates that seemingly idealistic political and cultural objectives *are* attainable. In the words of Mark Rudd—a former member of the Weather Underground who turned his back on violence and became a teacher—"what an individual does, in concert with others, *can* change the world" (2010, p. 313).

It simply takes a long time.

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