INTRODUCTION

Interactive Cinema, or The End of Radical Art?

"A unique cinematic experience," "a breakthrough," "not just a movie," "cinema with a twist," and the often recycled moniker "the first interactive film ever" are catchphrases commonly used to emphasize the supposed novelty of interactive cinema (IC) and other media arts that require audience participation. Beyond these now clichéd labels, the interrelated strategies these interactive cinematic media use speak to a desire to produce new spectatorial experiences and collapse the distance between art and audience. IC attempts to dismantle the conventions and myths associated with the darkened movie theater and the audience's passivity by integrating elements such as live performance, voting, and motion sensors to create a participatory multimedia experience and to reconfigure the role of the spectator. Even though interactivity has become a commonplace buzzword, its sociocultural implications have rarely been studied through the lens of cinema and other media arts. *Interactive Cinema* explores the valuable contributions of the omnipresent yet critically elusive concept of interactivity to cultural production, communication, entertainment, pedagogy, politics, and civic engagement.

Furthermore, this book analyzes the development and multicultural reception contexts of interactive film practices from pre-/proto-cinema and early cinema to Hollywood B movies, site-specific participatory experiments in expanded cinema, early CD/DVD-ROMs, museum and gallery installations, world expos, web-based works, and virtual reality projects. IC broadly refers to a cluster of interconnected creative media practices that incorporate

the audience into the construction of the work—through tactile interaction, voting polls, motion sensors, and live performance—in order to create a participatory multimedia experience. I am choosing the umbrella term "interactive cinema" as a rather overlooked critical constellation and media ecology in order to provide new ways of thinking about the relationships between different media and, more important, their associated traditions and ideologies. Making cinema—broadly defined as an interconnected media landscape—the focal lens through which I study interactivity invites new perspectives on the participatory condition that defines contemporary notions of citizenship and democracy. Through rigorous cross-cultural and contextual analyses, this book brings to light the various ways that new digital modes of interactive storytelling have their roots in the histories of old screen media.

The multifaceted category of IC thus enables me to include diverse and hybrid modes of creativity in critical frameworks that often marginalize them as a result of their inability to be neatly taxonomized. I approach media interactivity as an experiential and embodied phenomenon that cuts across various time- and screen-based media practices and that critically expands the ways we think about individual media, their overlapping connections to long-standing cultural traditions, and the complex processes through which ideologies are mediated. This book begins with cinema as a starting point and then proceeds to highlight the overlapping ethos in sociopolitical and cultural participation that transcends medium specificity.

The contested and polysemic notion of interactivity becomes the framework through which I challenge and expand canonical, interdisciplinary, and emerging approaches to cinema (and other time-based media) to construct an alternative, multilinear, and nonteleological critical historiography of cinematic spectatorship that considers experimental practices and exhibition contexts not yet fully incorporated into the field of film and media studies. Conversely, this book aims to incorporate insights from film and media studies into problematic posthuman debates within the humanities and social sciences regarding science and technology's impact on the Anthropocene that point toward a utopian post-class/-race/-gender and technologically conditioned future. My research instead reveals that gender, sexuality, race, class, disability, and colonizing impulses become even more pronounced issues within technoscientific contexts.

By developing historically, socioculturally, and politically specific discourses on interactive spectatorship, I frame interactivity as more than a universal and democratizing phenomenon. These particularities enable me to formulate an approach to interactivity as more than a technologically determined condition and, significantly, to understand it beyond the purportedly evolutionary path that leads to, and often ends with, digital media. At the same time, through in-depth case studies, I connect interactivity to contemporary notions of global citizenship to indicate its pervasive impact on cultural organization and communication infrastructures.

The main objectives of this book are twofold. The first aim is to decenter the Western-centric narratives that usually associate interactivity with polarized ideas of either mass manipulation or user empowerment as democratization—dichotomies that have also restricted the cultural histories of computation. In challenging the either/or binary of current accounts of interactivity's politics, I must myself resist the impulse to validate one side of the binary over the other or to replace it with some entirely new but similarly stable alternative. The media network in which interactivity is embedded should be regarded, as Timothy Murray asserts, as both "a defensive system of global, capital sovereignty and as an affirmative, evolving event of race, sexuality, ecology, and class that loosens the institutional boundaries of artistic creation, exhibition, and critique, all inscribed in the broader digital and ecological atmosphere."[1] My second aim is to propose a counterhistory of cinema by expanding its definition to include several variations of participatory spectatorship, including different sensory lenses (such as smell and taste, as well as the different sensorial experiences of people with disabilities) and materialities (including hardware, discs, net art, and mixed media) that disrupt ocularcentric ways of approaching film and, by extension, other moving image media cultures.

The multiple material, historical, sensory, and sociocultural vantage points provided in this book will ultimately demonstrate that beyond its rhetorical and institutional presence, cinema was never a consistent or unified entity. Cinema thus becomes a figment comprising interrelated strategies rather than simply aesthetics, as well as a powerful case study in how institutionalization, conditioning, and ideological dissemination function in different contexts. My analysis of many overlooked creative experiments in media participation will provide the foundation for examining how interactivity

operates across various contexts and, by extension, how it reflects wider discourses on participation and embodiment. By expanding the scope of embodied media participation facilitated by technological apparatuses, I deliberately shift the critical focus toward nonnormative subjectivities and toward a nonbinary (or, rather, beyond binary) understanding of the human–posthuman sensorium. At the same time, though, I address head-on controversial issues regarding gendered subjectivities (among other variants) and how those can unconsciously condition the audience's response to interactive art before the participation has even begun.

My impetus for critically studying IC is to explore participatory media through theory and case studies that complicate how interactivity socially functions and what it culturally signifies, depending on the context, without reducing this phenomenon to polarized good/bad and hegemonic/subversive binaries. Because the significance and meaning of interactivity fluctuates depending on circumstances, I use multicontextual case studies to provide a more nuanced counterpoint to the progressive and egalitarian promises of global networked connectivity in cases where, for instance, interactive technologies are instead used as systems of mass surveillance, exclusionary politics, and public conditioning. In his landmark book, *Virtual Art: From Illusion to Immersion,* Oliver Grau argues that the dynamics between critical distance and immersion "are multifaceted, closely intertwined, dialectical, in part contradictory, and certainly highly dependent of the disposition of the observer."[2] I transport Grau's nuanced argument to the context of interactivity and further extend it to cover additional definitions of art and technology as they are understood outside of Western canons.

My work further aims to question a certain persistent impression of ocularcentric cinema that has functioned as a hegemonic construct and disciplinary mechanism. IC thus provides a compound tool through which to unpack and redefine not only cinema and technological participation but also the underlying power dynamics at the core of interpersonal mediated encounters. For starters, IC helps us envision alternatives to the mass production of the modern and rational subject that still more or less persists despite ontological changes in the media forms that address and shape it. The inclusion of audience and/or object-/machine-oriented multisensory participation in the production of meaning undermines the Cartesian paradigm of top-down knowledge production and allows meaning to become negotiated and

pluralized. Further, the interactive condition has the potential to facilitate new ways of being in the world beyond fixed subject–object positions.

In the 1990s and early 2000s, when the hype regarding interactive technologies was at its peak, certain theorists and artists saw potential in interactive art as metacommentary on the participatory condition. Notably, media archaeologist Erkki Huhtamo argued that "in a world where the development of new technology has been subordinated to the interests of the market, the military and governments, the wonderful promise and 'democratizing' potential of interactive technology may be a camouflage for something else."[3] Resisting the 1990s hype surrounding interactive telecommunications, Huhtamo prophetically argued that interactive art could productively function as an antidote to the hypnotic mainstream promises of interactivity. Through creative strategies of appropriation, remixing, hacking, and refashioning, interactive art has the potential to make audiences reflexive of the very technologies that shape their daily communications. Similarly, Söke Dinkla likened then-emerging practices in interactive creative work to a dynamic "floating work of art" without a fixed meaning or unifying perspective. For Dinkla, the plurality of the floating work of art created new possibilities for experiencing the world and for proposing a new world order.[4] In retrospect, these early characteristics of interactive art can be regarded as the building blocks of what Luci Pangrazio and Cameron Bishop consider a "digital counterpublic" that decontextualizes technologies from their ordinary utilitarian functions and surrounding discourses, and opens up new potentialities that simultaneously challenge the audience and provide a template for a digital counterpractice.[5]

In the chapters that follow, I explore in more depth counterpractice in the context of early digital interactive art. I argue that interactivity in early digital and electronic milieus serves as an exploratory interface and an artists' playground—more concerned with staging affective and subjective psychic encounters than acting as ideological positioning or a user manipulation tactic. Combining such approaches results in a nuanced understanding of interactivity in art as an experiential mode of critique, where the mechanisms of interactivity themselves become arguments that must be experienced phenomenologically in order to be fully apprehended.

Besides reading about these early approaches to interactive art that were on the fringes of the then-nascent digital humanities, my own foray into

IC began by studying site-specific, mixed media, and ephemeral interactive projects by artists such as Lynn Hershman Leeson and Toni Dove, as well as avant-garde art traditions that privilege interrupted and discontinuous modes of spectatorship, such as surrealism, Dada, expanded cinemas, and various new waves. This background made it easier to study these (now) old new media from a perspective that precluded the ontological fetishization of the digital and its often uncritical equation with a perpetual newness that problematically escapes periodization. Nevertheless, one of the main reasons the pre-/non-digital and expanded cinema works I cover in this book are relevant again is because they serve as a means of historically contextualizing newer and emerging media as a way of understanding the new through the old—one of the oldest meaning-making and historiographic tools at our human disposal. In reflecting on and reversing the often one-directional conversation between new and old in the field of digital/emerging media, I hope to contribute to new approaches of thinking about the digital via a multicontextual study of interactivity that is not grounded in technical aspects and instead considers the digital as an ethos, a variable discursive template, and an epistemological apparatus on a continuum with other expressive mediations.

By looking at different periods and phases of digital and electronic cinematic experimentation, my research aims to position digital logic and the ethics of interactivity on an ideological continuum with several histories and traditions. The computational layer is significant to interactive media analysis; indeed, it tends to be at the core of now popular digital humanities methods. However, my approach advocates the importance of fusing, rather than replacing, long-standing methodologies, such as close readings, narrative analysis, and cultural studies, with newer distant reading, data-oriented, and macroanalytical approaches to moving images in a hypercontextual manner.

At the turn of the century, when new media studies was still a nascent area of serious academic study, Henry Jenkins defined a hypercontextual approach as one that does not exclusively focus on technology and instead prioritizes the study of interactions between and among media producers and consumers, as well as between consumers who are also producers (or prosumers) of media texts.[6] Huhtamo similarly urged artists and critics to focus more on the "cultural consciousness, ethics and the politics of

representation" in the digital realm rather than on technical mechanics.[7] I expand on the hypercontextual methodology in each chapter of this book to consider additionally interactions on multiple levels (consumption, production, circulation, distribution, access, archiving and preservation, individual–collective, cross-disciplinary, and so on) and to combine the most productive aspects of both established and emerging analytical frameworks. An additional methodology that I use in this book is inspired by Anne Friedberg's paradigm of the split optic, a mode of parallel perception that simultaneously considers the past within present sensibilities and vice versa in a nondeterministic manner, and without indiscriminately conflating the two.[8]

This book is not meant to be a comprehensive catalog of interactive media; that would be an impossible task, especially given the lack of historical information and preservation of many underdocumented ephemeral experiments. Instead, my book is organized thematically around central critical issues regarding IC that relate to other aspects of media culture and civic engagement, including participatory ethics, censorship and its impact on historiography, preservation and archiving, and audience reception studies. At the same time, cinematic interactivity becomes a means to incorporate film studies—a field sometimes regarded as marginal or outdated by outsiders in both the humanities and the sciences—into cutting-edge and timely debates on topics such as computational humanities, artificial intelligence (AI), activist and crisis-driven art, and civic engagement.

The Introduction situates central issues regarding interactivity from the perspective of film and media studies and interrelated fields. The cinematically oriented discussion fills certain critical gaps in the overarching frameworks of both interactivity and media studies while also providing more complexity to polarized discussions of East versus West and global north versus global south that have intensified within the context of digital studies. Just as the book is not meant to be a comprehensive catalogue of IC, it is not meant to include a comprehensive bibliography either—though it does provide readers with a solid foundation for both canonical and underrated works. To avoid merely reproducing a synthesis of the usual suspects in film and digital media studies, I significantly reduced the literature review to make my own contributions more prominent, so I have omitted or placed in endnotes some of the more canonical citations in cases where I had

nothing new to add. Instead, I shift the focus to generative areas that propel our inquiry to new directions; this process entails the inclusion of productive works by lesser-known authors and theorist-practitioners, lesser-known works by major authors, and counterperspectives on major literature.

Chapter 1 focuses on questions of access and accessibility. It interrogates why noteworthy cinematic interactive practices have not become more integrated into the history of cinema at large and what their inclusion can contribute to media historiography and sensory studies. This question provides an opportunity to reflect on canon formation in film and media studies (and interrelated fields) and the ways in which that has established an exclusionary history and theory that, until only recently, privileged visual, and to a lesser extent auditory, approaches to the cinematic medium. I analyze the ways this prioritization relates to a broader history of the philosophy of the senses and to the cultural establishment (in Cartesian and Western terms) of a strategic sensory hierarchy. Against this privileging of vision, more contemporary interactive experiments have used the so-called lower-class and baser senses, such as smell and taste, as a form of provocation and as a means of rewriting histories of colonialism and exclusionary biopolitics. Chapter 1 charts a more inclusive sensory cartography and multimodal historiography mostly lacking from current studies of both cinematic arts and interactivity as well as from sensory philosophy. By approaching interactivity through the senses, I compare theories ranging from classical to digital and explore areas and examples that are marginalized from overarching canons of media analysis. The sensory focus formulates new ways of thinking about the screen–spectator relationship as the analysis moves from external (outer physical, social) to internal (cognitive, mnemonic, psychological) associations. By the end of the book, readers will have a sense of how the inner and outer layers of interactive participation are interconnected, at times becoming either interchangeable or mutually exclusive.

Because most predigital and multisensory forms of IC were not deemed historically important or were dismissed as gimmicky—or, as in the case of many avant-garde examples, were intended to be short-lived—there is a significant lack of access through documentation, archiving, preservation, and digitization as well as even a lack of basic information about their actual content. Therefore, part of my research inevitably resembles a scavenger hunt for these older new media forms. Limited access is not only an analog

and predigital problem; the issue extends to the lack of substantial preservation and access to early electronic experiments in interactive narratives in the form of laser discs, floppy disks, CD/DVD-ROMs, and Flash net art from the 1990s. This point also challenges the alleged longevity of digital over analog content and compartmentalizes the typically regarded homogenous digital phase into different ontological periods. In the case of disappearing media, close readings become an important aspect of preserving the memory of these media.

My scavenger hunt additionally included directly contacting artists or their surviving relatives, piecing together digital traces and archival material, visiting nontraditional storage and exhibition sites, and accessing hard-to-track collections. Chapter 2, which focuses on issues of physical access and preservation, develops a hybrid adaptable methodology that takes into consideration the instability of a film's variable reception contexts, its ephemerality, and its ever-changing form. This chapter additionally grapples with the question of how to write about transient and changing media forms that seem to resist categorization and theorization. Chapter 2 deliberately focuses on precarious forms of IC that have emerged during times of technological and historical transitions and during specific sociopolitical crises, including the collapse of the Soviet Union and the emergence of new nationalisms in postcolonial and postindustrial times. One of the central case studies in this chapter is the Czechoslovakian choose-your-own-adventure film *Kinoautomat* (Radúz Činčera et al., 1967). *Kinoautomat* provides one of the central examples in this chapter because it has traveled across international and local sites and across different historical and sociopolitical contexts; it has also been under national scrutiny and political censorship as a result of its subversive format. Case studies like *Kinoautomat* provide a more nuanced counterpoint to the progressive, utopian, and egalitarian promises of new networked technologies of connectivity and participation—for instance, if we consider contexts where interactively connective technologies were instead regarded as systems of mass surveillance and propaganda. By revisiting and expanding post-Soviet approaches to media interactivity, such as Alexei Shulgin and Lev Manovich's notion of totalitarian interactivity, I consider internal divisions within Western hegemonic constructs, such as Eurocentrism.[9] In line with my general objection to either/or accounts of IC's sociopolitical potential, I demonstrate that inequalities corresponding

to the East within the West are far more complicated—and even unexpectedly subversive—than the authoritarian lens through which they are typically discussed (if discussed at all). Additionally, the incorporation of neglected experiments with (then) new expressive and cinematic tools, such as the interactive CD-ROM *Troubles with Sex, Theory & History* (Marina Gržinić and Aina Šmid, 1997), into my cross-contextual analysis of interactivity provides a skeptical perspective on the relationship between gender, sexuality, and civic protest from rarely documented post-Soviet and Balkan perspectives.

Experimental interactive films that speak to the transitional phase of the "new Europe," such as the abovementioned *Troubles with Sex* and additional cases of border cinema like *Killer.berlin.doc* (Bettina Ellerkamp and Jörg Heitmann, 1999) from postreunification Germany, provide strong examples of what I call composite aesthetics. These films experiment with interface aesthetics, database analogies, interactive mapping tools, and CGI, as well as with older filmmaking techniques, without settling on a consistent cinematic register; the resulting composite aesthetics destabilizes the idea of localism and proposes new transnational spaces—and also new inequalities—that partly emerge due to digital connectivity and subsequent industrial restructuring. By analyzing the composite aesthetics in these films through key concepts in digital media theory—such as database narrative, interactivity, locative media, and spatial montage—as well as memory studies and transnational theory, the experimental approach to digital techniques translates into a culturally specific critique of connectivity, globalization, and mobility at a time where cultural borders, like cinema's own boundaries, were being expanded and renegotiated.

Beyond the virtual–analog spectrum, chapter 3 collapses yet another perceived border—that between human and machine—through case studies in generative and algorithmic cinema. This part of my research looks to the future of cinema and new media through pioneering experiments from the forward-thinking past. I revisit cinematic experiments that converge narrative comprehension with the modularity and automation of software-generated and AI-driven cinema (through examples like Manovich and Kratky's Soft Cinema series), and I reflect on how this fusion might expand —and, in some aspects, potentially homogenize—the notion of world cinema to include code and the aesthetics of the graphical user interface (GUI).

Interactive spectatorship typically undermines the primacy of vision—and to an extent hearing—in cinema by focusing more on the physically (or, in more complex examples, somatic-cognitive) obtained outcomes of the interaction. In other words, the main focus shifts from audiovisual comprehension to interactive (re)production through haptic motion and selection—movements that also define our interactions with media we use daily. I therefore develop the notion of procedural spectatorship (process-oriented and modular beyond-ocularcentric viewing) to describe more fittingly the audiences of these nontraditional cinemas and, more broadly, the modes of subjectivity that emerge or are shaped from our interactions with digital media.

Chapter 4 explores interactivity as a template for ethical conditioning to raise difficult questions about moral taboos regarding individual and collective participation. An exploration of the processes of conditioning and of reconfiguring modes of spectatorship in interactive films provides profound insights into the pedagogical potential of interactivity, especially through cases that push the boundaries of both cinematic representation and audience participation. In this chapter, I explore emerging forms of interactive spectatorship, starting with Stanton Audemars's controversial *Stockholm: An Exploration of True Love* (2008), and connect those to a broader critical history of cinema's sociological aspects. *Stockholm* challenges the confines of a voyeuristic subjectivity free of the tension associated with acting out desires elicited by on-screen images by inciting viewers to become complicit in the virtual performance of sadomasochistic acts. *Stockholm*'s mechanisms provide an opportunity for me to connect productively this cinematic example to other notoriously disturbing examples where artists used similar performative strategies to complicate the passive and active roles of both audience and creator, including Marina Abramović's performance art *Rhythm 0* (1974) and Alexander Brandt's digital installation *Kan Xuan* (2000). By cutting across media formats and disciplinary boundaries, I demonstrate that there is much to gain from an interdisciplinary study of performative ethics as they relate to embodied participation.

I further explore modes of sensory and cognitive pedagogy in chapter 4 by relating them to modernist theories about the mechanization of the human body and to posthuman notions of distributed intelligence across human and nonhuman agents, as well as to military-industrial training. Then, I

compare the logic of interactive media to the conditions of postindustrial societies that impose on their subjects a limited and mass-produced notion of subjectivity defined by external and technological factors rather than internally formulated. Conversely, I also consider other possible interpretations of conditioning that could lead to more empowering and diverse paths of media prosumption. Psychological learning processes that occur within interactive contexts, such as habituation and dehabituation, have the potential to cultivate conscious reflection and action as well as to forge new neural pathways that reprogram users' conditioned responses. Queer activist Anna Anthropy's autobiographical game of gender transition, *Dys4ia* (2012), provides one of the strongest examples in this chapter of productively recontextualizing familiar prereflective mechanisms—in this case, queering familiar point-and-shoot and arcade-style games—in defamiliarized ways that require users to actively reflect on what these often invisible organizing structures entail. *Dys4ia* and other examples in this chapter appropriate gaming structures that historically correspond to larger systems of oppressive and masculinist regimes and deconstruct them by dehabituating their often unquestioned interactive mechanics. This final chapter in the book paves the way for further ethical reflection on the interactive media we consume and are being consumed by on a daily basis. An expanded and plural understanding of cinema via the various possible definitions of interactivity—social, physical, technical, ethical, psychological—thus provides the framework for studying different modes of human behavior, meaning making, community building, and citizenship formation across different contexts and cultures.

Purely Impure: Cinema as Multimedia Index

The field of film studies has much to offer to sociocultural and epistemological studies of new media and technology. To begin to consider how film studies productively extends other fields, such as studies of culture and technology, I start with one of the most cited early film theorists, Andre Bazin, where I focus on one of his least cited yet crucial arguments.[10] Bazin was one of the first film theorists to reflect on what he productively identified as the impure (*impur* in French) or mixed nature of cinema, and one of the first to draw attention to the fact that cinema borrows from earlier arts like literature, photography, drama, sculpture, and painting, as well as

from newer media (which for us now include television, video games, the World Wide Web, and mobile media). Bazin did not use the term "impure" in a negative way but to rather envision cinema's creative potential and the multiple directions filmic expression could take. While updating film studies for the twenty-first century to usher a new wave of more inclusive media studies scholarship, Anne Friedberg stated that "media-specific distinctions between cinematic, televisual and computer media have been eroded beyond recognition by the digital technologies that have transformed them."[11] Unlike cinema purists who lamented the so-called decay of (theatrical and analog) cinema, Friedberg productively embraced this intermediality in her theory and multimedia scholarship. More recently, Jihoon Kim expanded Bazin and Friedberg's understanding of a multimedia(ted) cinema as "a set of representational, perceptual, and expressive conventions which have been developed since its inception and have been borrowed [and, I would add, expanded] by new media."[12]

Ironically, the field of film studies has institutionally sought to develop and maintain a certain disciplinary exclusivity, although paradoxically some of its most influential early amateur film theorists ranged from psychologists (such as Hugo Münsterberg) to even a dentist (Jean-Louis Baudry). Further, on the flip side of filmmaking and art practice, there were also certain boundaries, especially related to medium specificity and the sometimes exclusive art circuits that formed around materiality and aesthetics—for instance, purist celluloid cinema versus video art, and later video versus net art—that contradicted the experimental ethos of multimedia practice and expanded cinema. Gradually, since around the late 1980s and especially in the last decade, the incorporation of more intersectional approaches to gender, race, class, and other permutations of difference helped expand the field into other territories, but even in many of these instances, the idea of cinema and the methodologies for studying it remained rather limited, fixed, and exclusionary—with, of course, some significant yet rather marginalized exceptions that I will cover in following chapters.

Various academics' turn-of-the-century proclamations of the death and decay of cinema, made in light of the digital, mobile, and increased domesticity of the cinematic, led to endless and mostly dead-end debates regarding the (re)definition and future of cinema.[13] I think this crisis had less to do with changes in cinematic materiality and spectatorship and more to do

with anxiety regarding the future of film studies scholarship. The productive side of this overblown crisis is that it led to an expansion of what could be considered cinema within the field; it also highlighted the need for reinvigorated modes of inquiry. In fact, this need for change actually reflected a return to some of film studies' original ethos. On the side of scholarship, new modes of critical making and multimodal writing (such as video essays, blogs, and remixes) have been increasingly gaining momentum within what Holly Willis terms the "cinematic humanities": a robust area of inquiry that embraces "immersive, embodied, gestural, and virtual" critical practice and produces modes of inquiry that emerge from the creative experimentation with the affordances of new media platforms.[14] This theory–practice approach resembles the impetus of early film theorist-practitioners such as Lev Kuleshov, Sergei Eisenstein, Dziga Vertov, and Hugo Münsterberg. And even before writings on film, early filmmakers themselves were producing the first reflexive films about cinema as a way to theorize the primal appeal of moving images, like *The Countryman's First Sight of the Animated Pictures* (Robert W. Paul, 1901) and *Uncle Josh at the Moving Picture Show* (Edwin S. Porter, 1902). These filmmakers were using film to study film in order to explore cinema's mimetic potential, its psychological appeal, and the human condition. Considering this history, the multimodal and collaborative work of some of the first digital theorist-practitioners in film and media studies, including Marsha Kinder, Anne Friedberg, Stephen Mamber, Steve Anderson, and Tara McPherson, is in line with early experimental and interactive experiments in multimedia scholarship.[15]

Social, mobile, distributed, amateur, and unregulated modes of cinema—predominant aspects of which are now emphasized within digital studies—were also characteristic of early modes of cinema. Looking back at cinema's past and several possible trajectories—including its multiple incarnations in vaudeville shows, science and art fairs, amusement rides, magic shows, public plazas, and optical toys—cinema has never conformed to a singular form and was never confined to a specific space or to a homogenous type of audience. By historicizing new modes of spectatorship by grounding them in older traditions, Henry Jenkins affirms that

> cinema has always been many things, [. . .] many experiences of going to the movies, many ways the audience has participated in the experience of

> movies, and many different connections between film and other media platforms. As we think about the future, we need multiple histories because we will have multiple futures.[16]

Friedberg's mobile spectator of early modernity, Erwin Panofsky's ocularly mobile cinema viewer, Vivian Sobchack's phenomenologically heterogeneous audience, and Béla Balázs's cognitively interactive viewer are but a few examples of pre-/non-exclusively digital theory that framed the film viewer in similar terms as the user of the digital age.[17] Situating cinema's hybridity in its very inception and considering the process of spectatorship as (at least partially) apparatus-agnostic lessens the impact of contemporary notions of postmedia and postcinema periodization that now tend to be rather apocalyptically associated with the digital age.[18] Conversely, Francesco Casetti's proposal of an ever-increasing diffusion (rather than dissolution) of the cinematic complements Gilles Deleuze's notion that not only is cinema *not* dead, but it is barely at the "beginning of an exploration of audiovisual relations, which are relations of time."[19] Friedberg extends Deleuze's assemblage of temporal relations to a cinematic spectatorship that "has always produced experiences that are not temporally fixed, has freed the spectator to engage in the fluid temporalities of cinematic construction—flashbacks, ellipses, achronologies—or to engage in other time frames."[20] From this perspective, cinema has always been interactive, at least in terms of cognitive, visceral, and experiential engagement.

The notion of historiation, alongside the aforementioned hypercontextual lens and the split optic approach, provides the backbone for my study of media across changing historical-cultural contexts and material-virtual forms. Historiation, a term coined by Terry Harpold, proposes a multilayered methodology of contextual analysis that considers varying subjective reading practices and material conditions, and it can be extended to other sensory ways of engaging with media content and forms. Harpold incorporates the reading interface as well as the varied individual textual encounters into a broader understanding of a media(ted) object's history. In fact, many of the interactive media analyzed in this book have been accessed via new reading interfaces that have in turn created new experiential contexts and subjective connections to the original interactivity. By insisting on the uniqueness of each medial interaction, Harpold highlights the overall

inconsistency of an interactive object's meaning, which is bound to the irreducibly subjective character of each interaction, paradoxically carried across other interactions:

> Each moment of the reading encounter is the inconsistent aggregate of other moments, stimulated—consciously and unconsciously—by marks and patterns of marks that evoke others and thus generate meanings that are specific to the encounter. I propose to characterize these operations, which are bound to, and capable of anticipating and generating new responses to, visual-textual traits of the reading surface, by the term historiation.[21]

Essentially, interactive objects generate performative events, as every encounter experientially differs from each previous one—although this argument can also be loosely applied to any kind of encounter, as we never biologically or mnemonically repeat the same experience twice. Thus, applying the methodological hybrid of split optic hypercontextual historiation paves the way for more cross-contextual, multiplatform, and interpersonal modes of media encounters; this combination informs my own development of an analytical framework that takes into consideration the inconsistent and multilayered nature of IC experiences in social, domestic, multicultural, and other reception contexts. Using specific case studies from various historical-cultural contexts and formats, including virtual reality (VR), CD- and DVD-ROMs, and gallery and museum installations, I develop a methodology that takes into consideration the variability of a film's reception contexts, its evanescence, and its changing form and/or reincarnation. This approach considers how those inconsistencies problematize a retrospective analysis of multimedia as stable objects of study, preservation, archiving, and historiography. Combining these unique and underutilized frameworks enables me to develop a flexible, open-ended methodology that acknowledges the diversity in media forms and audiences.

Before proceeding further, I would like to ground this theoretical discussion in a specific case study to demonstrate directly the complexities of my hybrid methodology in practice. The following example is one where interactivity functions as a metainteractive historiographic tool as cinema becomes postcinema. This example introduces and amalgamates some of this

book's central preoccupations with ephemeral film historiography, user participation, and the phenomenological spectrum of materiality–virtuality. The interactive project in question is *Seances* (Guy Maddin, with Evan and Galen Johnson and the National Film Board of Canada, 2016). *Seances* is a relatively recent example of the generative aspects of gaps in historical narratives. The dual meaning of séance —a supernatural conjuring of the dead and, in French, a gathering in the dark akin to a film screening—stands for Maddin's process of resurrecting the lost films from the history (and counterhistories) of cinema. The absence of the actual films for various reasons—including material disintegration, lack of archiving and preservation, state censorship, and colonialism—enables an anachronistic re-creation of their narratives as a process of memorialization and historiography that is not materially or factually oriented.

The interactive installation version of *Seances* first asks audience members to select digitally generated images on a touch-screen table interface resembling a Ouija board (Figure 1). Each image corresponds to an index of a reimagined scene from a lost film; audience-selected scenes from the *Seances* recombinatory scene database are then stitched together by the proprietary software into a unique film that self-destructs once it is projected, thus making each experience one of a kind. The web-based version functions in a similar way: it asks the viewser (a portmanteau of "viewer" and "user") to "touch and hold" the cursor to conjure up a unique film that cannot be repeated once it has been screened.[22] The apparatus of theatrical cinema becomes transported to the web browser and reconfigures the typical browsing experience. Unable to pause, rewind, or save the disappearing film, the viewser experiences an ephemerality and site specificity that is typically associated with analog theatrical settings.[23]

Thus, *Seances* brings to the forefront the performativity and ephemerality of digital media—two qualities that are often hidden behind the digital's false promises of permanence, longevity, and replication. Every interactive encounter with *Seances* is a singular event; it is the result of a viewer's selections and an algorithm working together to produce and then destroy unique content. These transient media encounters bring to light performative and phenomenological aspects that underscore the importance of Harpold's historiation method, whereby the analysis of interactivity is more process

FIGURE 1. The interactive Ouija board from the installation version of *Seances* in 2016; the on-screen images are deliberately blurry to enhance the supernatural feel of the board and their own elusive origins. Unfortunately, there has been little documentation of the original installation version of *Seances,* apart from low-definition photographs, including this one. The fragmented documentation further contributes to the work's ephemerality. Courtesy of Dana Dansereau (National Film Board of Canada) and Guy Maddin.

oriented and dynamic than conclusively teleological. Performance studies theorist Richard Schechner identifies as a core staple of interactivity that it "always remains in the now." Schechner continues, "[Interactivity] cannot be repeated. It cannot be exchanged. It cannot be reproduced. It cannot be saved. It cannot be recorded."[24] Accordingly, the web version of *Seances* manages to transcend and redefine the properties of both theatrical cinema and digital media through their convergence and to recapture the aura of a uniquely interactive cinematic encounter on a web browser. Both versions of *Seances* create hauntings of the past by conjuring the spirit of lost films through their creative reimagining and propose multiple historical-archival trajectories that are centered around loss rather than material objects.

The unique software of *Seances* gives rise to a form of database-informed and algorithmically recombinatory cinema. The process of writing the scripts was also a pioneering human–machine collaboration: *Seances* creators ran

the movie scripts through seventeen different Google language translators and then back into English in a unique human–machine process of coauthorship that resulted in an appropriately hybrid "un-nesting" or a "coming out of narrative" that once again charts new paradigms for ephemeral film histories.[25] Viewers cognitively and experientially create their own memory archive of the temporary films conjured by *Seances,* paving the way for new modes of historiography beyond medium and object specificity and institutional gatekeeping, and alongside machinic algorithms and generative AI.

Seances thus provides a compelling case study for why we must search for histories where there are none to be materially found and why speculative and revisionist historiography matters. When it comes to tactile and other nonocularcentric media, David Parisi argues that "no linear and teleological narrative exists for media archaeologists to problematize and overturn."[26] The nearly nonexistent historiography on tactile media coincides with the near absence (at least up until the late 1990s) of media theory on haptic culture, which partially explains the lack of mainstream interest in multimodally engaging forms of cinema. But as this focus shifts, what else are we not focusing on? Neglected sensory traditions is what chapter 1 on the sensory aspects of interactivity seeks to explore, with a special emphasis on the neglected senses of taste and smell that push toward a reconfiguration of normative Western sensory hierarchies.

Interactivity: Beyond the Buzz(word)

Interactivity has captured the attention of researchers from various disciplines—something that indicates its pervasive influence yet also points to a lack of consensus in its critical significance. As Hudson and Zimmerman note, interactivity is a "confusing [term] since it is used both by corporations, seeking to amass data on customers for marketing, and by artists, seeking to enhance engagement."[27] Marsha Kinder, one of the first film and media studies scholars to study and cocreate interactive narratives in the late 1990s and early 2000s, observes that "interactivity tends to be used as a normative term—either fetishized as the ultimate pleasure or demonized as a deceptive fiction."[28] In *The Language of New Media,* Lev Manovich initially identifies interactivity as one of the characteristics of new media and argues that interactivity allows users to become "the co-author of a work."[29] But later in his book and in subsequent projects, Manovich admits that "to

call computer media 'interactive' is meaningless—it simply means stating the most basic fact about computers."[30] While a substantial segment of IC scholarship focuses on creating either too broad or too narrow taxonomies of interactive technology, I am most interested in the scholarship focused on audiences that emphasizes embodiment and subjectivity.

Emerging out of the overlap of communications and media studies is a more nuanced approach that goes beyond the often pointless obsession with categorization. Stromer-Galley, for instance, proposes that subjectivity seems to be the condition of true interaction (as in meaningful and psychologically fulfilling), where the interaction takes place between subjects, not between an inanimate object and a subject.[31] Erik Bucy similarly proposes that interactivity be measured within a sociopsychological context.[32] Henry Jenkins, as mentioned earlier, advocates for a hypercontextual approach that does not focus exclusively on technological activity. Instead, he argues that the focus should be on interactions in several different but overlapping registers: those that take place among and between media consumers, the exchanges between producers and consumers, and the interactions between consumers and media texts.[33]

To further complicate the discussion, there are many levels and definitions of interactivity in contemporary varieties of cinema, such as computer generated, software driven, physical, cognitive, and immersive. A single definition of any of these can, of course, be contested. Another criterion that complicates the measurement of interactivity is the different degrees of participation; artist Miroslaw Rogala points out that the viewer is sometimes not in control "but simply aware of his or her complicity."[34] Torben Grodal argues that the primary objective of interactivity should be "changing the mental states of the experiencer, whether that occurs through changing certain objects in the world or by altering his or her point of view or experience."[35] Grodal's argument shifts the focus from the mechanisms of interactivity to the human experiences created in participatory contexts. As many interactive scholars have noticed, interactivity is, at least to some extent, dependent on how users experientially define it; in other words, "interactivity may be in the eye of the beholder."[36] The idea of interactivity as a subjectively understood process or outcome helps formulate a more heterogeneous concept that is not technologically determined or assessed in unilateral terms of control, agency, and manipulation.

The polysemic and contested notion of interactivity thus productively informs the main organizing structure of this book to assist in navigating various forms and contexts of media spectatorship. As interactive artist Toni Dove points out, technology "reflects the intentions of the power structure behind it."[37] I am therefore much more interested in the ideologies and desires embedded in discourses and uses of interactivity rather than simple issues of categorization. This book will cover, among other areas, the collective fantasies that predate the technological manifestations of interactivity, from 1960s–1970s-era countercultural utopias of a globally connected unconscious, to democratic visions within authoritarian regimes, and to dreams of freeing the soul from the body through technology. These human desires are not only context and period specific; they also seem to reemerge in newly disguised forms during times of sociopolitical and existential crises.

Passive, Active, Reactive: New Media, Same Audiences?

Audience participation in visual media has complicated seemingly well-established notions of identification and spectatorship and has compelled critical audiences to revisit previous models of viewing experiences in a less homogenous way. When images become clickable, navigable, and computational, then the viewer is no longer just a viewer but rather becomes a participant in the unfolding experience. Throughout the book, when referring to cinema and other typically ocularcentric media, I default to viewser (viewer + user) to signal that visuality—as cultural currency—is still part of this shift in media prosumption (production + consumption), although I'm considering vision in a multimodal and nuanced way that includes sensory perception, as will be covered in chapter 1 on the senses.

Nevertheless, I believe that it is counterproductive to regard passive and active forms of spectatorship as binary because they actually frequently overlap with and encompass each other. Theories of visual representation and cinematic spectatorship cannot fully account for modes of interactive spectatorship because the more viewers are *kineasthetically* (somatically and aesthetically) implicated into the formation and progression of moving images, the more the interactive action becomes literal in embodied ways. Interactive audiences occupy a liminal space that is difficult to theorize because there are many different degrees and definitions of interactivity and participation in cinema. Nevertheless, despite the varying extent

of viewer involvement in interactive film narratives, all interactive viewers are not, as certain classical film theories suggest, simply manipulated by or absorbed into the ideological apparatus of the film; nor are they the hyper-cognitively active spectators of newer theories, who critique the film from a critical distance. Instead, I argue throughout the book that interactive viewsers become part of the performance of cinema (and/or other expressive media); they are physically implicated in the procedural development of the text's ideology. Therefore, it is more productive to think of active and passive modalities as existing on an ever-evolving spectrum rather than in opposition to each other.

Historically, cultural and audience reception studies scholars have presumed that audience response is and has always been active: viewers are always interacting with the film on some level—cognitively, socially, physically, emotionally, and so on. Even in noninteractive contexts, media audiences mentally construct heterogeneous meanings from elements of a given text and thus assume an active role in the meaning-making process. As Miriam Hansen posits, "Films may try to direct our attention more forcefully than a play or a novel, but they may also afford us an opportunity to meander across the screen and away from it, into the labyrinths of our own imagination, memories, and dreams."[38] This overlaps with Marie-Laure Ryan's assertion that the act of reading is always interactive, particularly in the context of ergodic literature.[39] Jacques Rancière additionally points out that "spectatorship is not a passivity that must be turned into activity" and that the spectator is always active in terms of observation, comparison, selection, subjective prioritization, and interpretation of information.[40] Accordingly, Claire Bishop, Nico Carpentier, and others have warned against viewing active and passive as opposing binaries and have instead proposed rerouting the conversation toward measuring the sociopolitical impact of participatory spectatorship. As this section demonstrates, the notion of interactivity runs the risk of signifying everything and nothing at the same time; this vagueness is why scholars such as Janet Murray prefer the more specific term "agency" to connote cases where interactivity is impactful and meaningful to both users and authors.[41]

The idea (or myth) of spectatorial passivity has been a formative component in influential theories on film spectatorship (such as the Lacanian–Althusserian–Metzian apparatus theory and feminist-Marxist theories),

media consumerism, and mass culture (for example, Adorno and Horkheimer, among many others). However, being passive is no longer an imposed cultural condition, if it ever was. As Jackie Stacey has stated with respect to queer spectators and other previously marginalized audiences, "It is now widely accepted that the cultural production of meaning involves active spectatorship, rather than the passive consumption of textually determined meanings."[42] For Stacey and other audience reception and fan studies scholars, hermeneutic polysemy allows marginalized groups to produce alternative meanings. Yet even one of the most vocal reception studies proponents, Judith Mayne, struggled to visualize the impact of a more plural and diverse sense of cinema and its audiences in the 1980s and 1990s, candidly confessing that "what is not altogether clear is the critical and theoretical difference [and, I would add, ideological and institutional impact] that a heterogeneous, as opposed to a homogenous concept of spectatorship, would make."[43]

Although there have been many positive breakthroughs in audience reception studies since the 1980s and 1990s, scholars should still cautiously refrain from exaggerating the socially empowering potential of audience participation. Avoiding exaggeration is especially crucial whenever active is progressively equated to reactive; notable examples that challenge an all-encompassing definition of active include the alienated audience of Brecht's epic theater and Artaud's Theater of Cruelty (Théâtre de la Cruauté, or Théâtre cruel), Eisenstein's viewer activity strategically directed toward the director's own constructed meaning, the phenomenologically disarmed spectators of flicker films, and even the unwillingly complicit audience members (allegedly) receiving electrical shocks during William Castle's *The Tingler* (1959) or being under the spell of Hypno-Vista hypnosis in Arthur Crabtree's *Horrors of the Black Museum* (1959)—to name but a few examples. In such cases, the spectator is primarily able to react, rather than critically interact, within predetermined bodily and cognitive parameters.

The methodology for cultivating an active type of spectatorship is equally ambivalent. The spectator is expected to either maintain a critical distance or completely abandon the role of spectator, both of which can potentially lead to "a self-suppressing mediation."[44] In other words, an audience member's true self (whatever that may mean) is susceptible to becoming compromised for the sake of adopting whatever position a work's creators have

determined within the parameters of interaction. Immersive media such as VR, for instance, usually operate by "diminishing critical distance to what is shown and increasing emotional involvement in what is happening."[45] Concurrently, expanded cinema's intentions—to expand consciousness through audience participation and dismantle traditional cinematic apparatuses—have not always been achieved.[46] As Jonas Mekas lamented, the desire for expanded consciousness is often simplistically "confused with the ability to see more color images, with the expanded eye, with the quickness of the eye."[47]

By extension, formal experimentation and technological invention do not necessarily generate more critical thinking. In order to achieve conceptual expansion, the focus must shift from one of expanding the "formal qualities of cinematic *image*" to one of interrogating and reinventing "the institutional qualities of the cinematic *situation,*" including the intertwined processes of spectatorship and authorship.[48] I would argue that in retrospective historical accounts, expanded cinema's agenda of expanded consciousness sometimes becomes problematically equated with that of either a neoliberal ideology or with a suspiciously apolitical cosmic spirituality that is in actuality more exclusionary than globally inclusive.

As the different case studies on interactive media show, the term "active" operates on a wide spectrum of possible positions and practices that also include the end goals of productivity, activism, and social engagement. Notably, even these objectives of interactivity have been criticized as problematic. Claire Bishop, for instance, strongly argues that social engagement is a confusingly ambivalent term that is difficult to quantify when it comes to participatory art, instead proposing a focus on an understanding of participation in which people are the central medium and material.[49] Nathaniel Stern defines participation as "having a say; it requires viewers to contribute at least some of the content" and typically involves "human-to-human" interactions.[50] Katjia Kwastek retraces some of the origins of the lexicon related to interactivity back to the 1901 *Dictionary of Philosophy and Psychology,* wherein interaction is defined as "the relation between two or more relatively independent things or systems of change which advance, hinder, limit, or otherwise affect one another."[51] Interestingly, the dictionary includes examples of both mind–body and object–environment reciprocity.[52] Human-to-human sociocultural relationships constitute an important part of this book, although

the focus also branches out into other possible interpretations of interactivity that include system-to-system interaction and non-human modes.

Much of the early theory on interactive media was actually produced by interactive artists themselves, who were formulating their critical approaches through multimedia practice. These invaluable artist-produced practical theories were often neglected in exclusionary film studies canons that disregarded their potential for rigorous intellectual thought. Retrospectively, though, these writings have been incorporated into anthologies that focus on digital or new media, yet they still remain on the fringes of film and media theory canons. One of these important theorist-practitioners is Lynn Hershman Leeson, the creator of the first documented interactive video art installation, *Lorna* (1979–83). In the late 1970s and early 1980s, she argued that interactivity is subversive in that it alters "the basis for exchange of information" by encouraging participation and "creating a different audience dynamic."[53] For Hershman Leeson, "participating personally in the discovery of values that affect and order their lives, allows individuals to dissolve the division that separates them from subversive control, and replaces some of the nostalgic longings with a sense of identity, purpose, and hope."[54] But how subversive is interactivity anymore, when being interactive has become a new cultural imperative and a marketing buzzword? This is a valid question, particularly when retrospectively considering expanded cinema, happenings, Fluxus, Viennese actionism, and other intermedia movements in the 1960s to 1970s that were reacting against taxonomies and institutionalization—not to mention earlier traditions such as multimedia theater (Laterna Magika, 1950s+), lettrism (1940s+), and of course surrealism and Dada. Even in the parts of the world where participation used to be associated with creativity and outside-the-box innovation, it no longer occupies a "subversive, anti-authoritarian force, but [has] become a cornerstone of post-industrial economic policy" and neoliberal discourse.[55]

In the era of digital remixing and the revival of appropriation and pastiche, can there ever be another sociopolitical art movement that is as creatively influential as those of the past? In particular, the term "radical" has been retrospectively applied to experimental and avant-garde contexts before the current digital age, which calls into question whether more contemporary digitally interactive art can ever achieve this kind of impact in its own right, independent of its historical predecessors. Duncan White, for

instance, summarizes that expanded cinema experiments in the 1960s and 1970s "have explicitly reframed the narrative spaces of cinema and *radically* reimagined the social and cultural natives that define the relationship between the audience and the screen."[56] This kind of intermedia experimentation was "greeted with ecstasy *and* rejected with horror as it threatened to overflow, and even wash away the boundaries between disciplines that the 'total forms' (such as opera) had only subsumed and reinforced."[57] While Jean-Luc Godard's prolific statement that "a story should have a beginning, a middle and an end, but not necessarily in that order" may have still been considered narratively groundbreaking within new-wave and other countermainstream traditions of the 1950s–1970s, how radical is it now, when disordered and multimedia modes of storytelling have now become a staple among Hollywood formulas?[58] Just as the art auteur of the 1960s and 1970s "rematerialized in the eighties and nineties as a commercial performance of the business of being an auteur," so too have expanded and interactive modes of cinema rematerialized in the 1990s and twenty-first century—but often without the same kind of radical urgency as their sociopolitically motivated predecessors.[59]

The newer remix culture of the digital age is frequently associated with the objectives of cultivating a more democratic and critical publics and privileging users over corporations.[60] However, as Rachel O'Dwyer reminds us, remix and other modes of prosumption can either function as "nonmarket and often anticommercial" practices (for instance, in their relation to hacker and free culture movements emerging in the 1980s, or earlier countercultural traditions such as Dada and surrealism), or they can occupy a central position within capitalist systems of cultural and economic power—or both, to fluctuating degrees.[61] The fact that "the tools and platforms underpinning that work, while superficially accessible, are substantially owned and controlled by corporations" further undermines the emancipatory and subversive potential of practices that hold cultural and symbolic cultural currency.[62] As Tiziana Terranova has stated, "subcultures have provided the look, style and sounds that sell clothes, CDs, video games, films and advertising on television."[63] Jodi Dean argues that global communication technologies transform any political content that is mediated through them into contributions to "communicative capitalism."[64] From this perspective, remix becomes less of an interventionist discourse and more of a currency in a

larger political economy, robbed of any ability to transform existing structures of cultural production beyond mere critique. In this book, I mention examples where interactivity disguised as egalitarian participation becomes just another vehicle for neoliberalism.

Nevertheless, subversive modes of remix and appropriation can occur from the inside—that is, operating within the logic of dominant culture to strategically undermine it. While difficult to measure and assess, subversive examples of interactivity further stress the centrality of subjectivity and broaden the geocultural scope of audience studies. Subversive examples come closest to addressing the new audiences invoked by the section subtitle, in terms of global visibility and of breaking out of the critical default of a mainly U.S./European lens by considering the (post)colonial subject as an active agent in producing meaning. *Manifesto Antropófago* (Anthropophagic manifesto, 1928), by Brazilian poet and central figure in the Brazilian modernism cultural movement Oswald de Andrade, has become emblematic of more contemporary cultural practices whereby the colonized appropriate (or cannibalize) their oppressors' tools for their own ends. Media activist Brett Gaylor's *Rip! A Remix Manifesto* (2008) cites the country of Brazil, when activist and influential musician Gilberto Gil was minister of culture, as a progressive case study of open culture, wherein cultural content such as music and folklore can be freely remixed and appropriated to create new forms of expression. Gaylor's documentary hearkens back to Andrade's manifesto, which urges a reconsideration of cultural cannibalism, or the devouring of the colonial power, as a means of strengthening and preserving one's own cultural identity. As Robert Stam explains:

> By appropriating an existing discourse for its own ends, anthropophagy assumed the force of the dominant discourse only to deploy that force, through a kind of artistic jujitsu, against domination. Such an "excorporation" —John Fiske's terms for the ways subaltern populations produce culture out of the resources of the dominant system—steals elements of the dominant culture and redeploys them in the interests of oppositional practice.[65]

Accordingly, Jun Okada extends Homi Bhabha's notion of postcolonial mimicry, whereby the colonized gain cultural capital by imitating their colonizers' behavior, to new waves of cinematic traditions from the marginalized

PIGS (Portugal, Italy, Greece, Spain) of Europe that have found unique ways of asserting their own cultural identity through processes of differentiated imitation.[66] Additionally, in discussing the global south, Sarah Ann Wells mentions the emergence of a lo-fi and makeshift "quasi-*rasquache* Chicano aesthetic" as an empowering counteraesthetic to the high-resolution impulse of new technologies.[67] *Rasquache,* a maker practice of Nahuatl origin native to peoples of Southern Mexico and Central America, used to be regarded condescendingly by outsiders as cheap, discarded, or undervalued, but it has now been reclaimed by the Indigenous makers as a powerful counter-hegemonic "underdog aesthetic, a view from *los de abajo* [those below]" and a survivalist practice that defies externally imposed socioeconomic divisions between the first and third world.[68] The lo-fi, makeshift, and hybrid aesthetics characteristic of the work of artists and filmmakers such as Peruvian American Alex Rivera function as the "mise-en-scène of globalized labor" in that it "renders visible the uneven texture of capitalism."[69] The low-budget, low-tech, and/or DIY appropriation of mainstream tropes and genres such as science fiction in this form of neo-*rasquache,* as well as the hypermediacy and nonassimilable elements of creative and cultural influences, suggest that hacking and culture jamming could function as a form of activism that obfuscates the ideologies of mainstream media to subvert their meaning to serve the purposes of disenfranchised groups.

Greater access to technology and tools of production does not automatically guarantee the flattening of other socioeconomic and political inequalities. In the context of public art, for instance, Miwon Kwon posits that there is always the possibility of exacerbating uneven power structures through activist intention, remarginalizing (or even recolonizing) already disadvantaged groups, depoliticizing and remythologizing the artistic process, and further widening the gap between life and art.[70] By extension, outspoken cultural theorists such as Evgeny Morozov, Mirko Tobias Schäfer, and Ramesh Srinivasan argue that the internet, social media, and other tools of production can be used to both empower and suppress, productively reminding us that there is no such thing as neutral and unbiased technology.[71] Thus, as my methodology will exemplify, examining media participation on a spectrum beyond beyond passive/active and good/bad binaries, and addressing philosophical, ideological, psychological, cultural, economic, and sociopolitical aspects is a much more productive template for studying audience reception practices and measuring the impact of civic engagement.

The same multivalent complexity informs the histories of media participation that coexist rather than contradict each other. On the one end of the spectrum, the (retrospectively) utopian versions of new technologies of connectivity would create a "global village" and "flatten organizations, globalize society, decentralize control, and help harmonize people."[72] On the other end of the spectrum, revisionist (for lack of a better term) histories focus on marginalization and exclusion during the days of the early social web. For instance, in his book *Black Software,* Charlton D. McIlwain emphasizes that from its inception, the internet was unwelcoming to Black people, and incidents of online racism and discrimination were frequent in supposedly democratic and egalitarian chat rooms and listservs.[73] As a complementary perspective, Fred Turner's *From Counterculture to Cyberculture* (2006) traces a prehistory of connected computing back to aspirations of personal liberation from authoritarianism, human rights movements, the longing for alternative communities, and the charting of new social modes of interaction.[74]

The same applies to the desire for expanded consciousness and dis-/re-embodiment: it is not motivated by—or even exclusive to—liberal ideas of cyberspace and new technologies but instead is attached to certain desires that have also manifested in other ways, such as through mind-expanding drugs; whether those desires are truly inborn or culturally cultivated remains unresolved. In fact, the expanded cinema of the 1960s coincided and often mingled with its contemporary hippie psychedelic drug counterculture. They may have used different means and media, but they shared a similar objective of expanding consciousness and transcending the confines of materiality. Although these endeavors seem to be on the extreme opposite side of the spectrum from fears of enslavement, mass surveillance, and brainwashing often associated with mainstream media, even those dreams of global connectivity were by default exclusionary in their predominantly white, Western, and masculine (popularized) origins. I thus further develop the Friedberg-inspired split optic approach to examine concurrently different perspectives on the "same" interactive cultures and resist the historical urge of offering monolithic teleological histories where there are none.

To bring the discussion back to interactive art, theorist-practitioner Woody Vasulka asserted in the late 1990s that the "radical" dimension of interactive works is located in the "idea of giving the space, the art, the narrativity, the storytelling to the audience, apart from your own personal

position as author," arguing that a relinquishing of authorial control is not only something that the audience may desire but also an "inevitable" goal for artists.[75] Vasulka's desire for a new kind of radical practice after the era of video art confirms Grusin's observation that "academic discussions of interactive cinema often indulge the desire for a radically new cinema along the lines of hypertext fiction and other new media art," also expanding the scope to include the artists themselves who hope for groundbreaking experimentation in the digital age.[76]

Rancière famously dispels some of the hopeful rhetoric regarding interactivity's radical and subversive potential by arguing that active and passive roles are interchangeable and that replacing passive with active does not radically alter existing hegemonies. For Rancière, "emancipation starts from the opposite principle, the principle of equality. It begins when we dismiss the opposition between looking and acting."[77] Nevertheless, Rancière's hegemonic horizontalization of the acts of looking and doing, though compelling in theory and in the context of art, is problematic in other realms such as politics and cultural production. Carpentier, for instance, in his extensive study of cultural participation, states that the author as a hegemonic construct is more resistant than it seems—something that is even suggested in Barthes's influential yet often misinterpreted essay "The Death of the Author."[78] Through the study of interactive media practices, I instead propose to consider active and passive modes of production and consumption (or "prosumption") on a continuum rather than as mutually exclusive conditions.

As a result of the in-between and fluctuating roles of producers and consumers of cultural content, neologisms such as prosumer (producer + consumer), interactor (interactive + spectator), and viewser (viewer + user) are more apt descriptors to signal these vacillating dynamics. In an earlier essay on expanded and interactive television, I used the term "prosumption" to signal simultaneous consumption and production processes, though not necessarily to the same extent or with the same impact.[79] A prosumer is either more of a producer or more of a consumer.

The portmanteau "prosumer" has the most extensive history out of the abovementioned neologisms, although works of science fiction, particularly by William Gibson, and prolific cultural theorists, including Baudrillard, Marx, Benjamin, and Barthes, have long envisioned the duality of the notion of prosumption. The actual term "prosumer" was, as far as I am aware, first

coined in the late 1970s–early 1980s by futurologist Alvin Toffler. The notion of prosumer has been criticized for its ambivalent connotations, but for the purposes of this book, I use the term as shorthand for active (that is, productive) noncorporate consumers and audiences to distinguish them from corporate hierarchical modes of production. However, the term "prosumer" is deceptively vague for several reasons, some of which coincide with the falsifiable mythologies of interactivity. The first reason why this term is problematic lies in the uncertainty of where to situate prosumers. Do they operate within the logic of consumer culture, or do they retain a certain independence from mainstream economies and ideologies? Another issue with the term is that "prosumer" misleadingly suggests that a prosumer is equally a producer and a consumer, whereas this is rarely the case. Admittedly, prosumption can run the same risk as other participatory practices in that it can strengthen, rather than modify, established systemic hierarchies of consumption and production, and promote the free labor and exploitation of prosumers under the guise of empowerment.[80] Nevertheless, prosumption helps us consider various degrees of participation instead of placing all types of media consumption into a monolithically passive category.

Existing alongside these considerations are historical revisions that serve to highlight that even early examples of computer users were not strictly passive. In *A People's History of Computing in the United States* (2018), Joy Lisi Rankin challenges the contemporary conflation of "user" with that of "end user" and "consumer" through her historical investigation into early computing culture in America. Rankin argues that a significant number of early computing citizens often "produced and engaged in social computing . . . [and] wrote programs for problem solving, personal productivity, and creative expression."[81] On the one hand, this fact undermines mythologies of passive consumption that have formed the basis of numerous cultural theories, but on the other, it raises further questions as to who was able to participate, and under what circumstances. This consideration adds more nuance to a people's history of computing, as Rankin mentions the irony that early personal and social computing culture mainly consisted of a "homogenous bunch of white men: no women, few minorities," something that ironically contradicted the contextually adjacent social justice movements of the long 1960s—those same movements that inspired other forms of participatory and activist art experiments.[82]

Placing "active" and "passive" on a spectrum of prosumption additionally demythologizes narratives that deterministically connect lower barriers to cultural production to new technological tools and to more accessible distribution platforms. While this shift might partially account for cases of increased civic engagement, increased access to cultural tools of production does not necessarily equal meaningful and impactful participation. The emergence of revisionist and more inclusive histories of participatory cultures has demonstrated that the desire for sociopolitical public engagement has a much longer past than the invention of interactive technologies. Henry Jenkins and others define participatory culture as one "with relatively low barriers to artistic expression and civic engagement, strong support for creating and sharing one's creations, and some type of informal mentorship whereby what is known by the most experienced is passed along to novices."[83] In theory, members of a participatory culture are made to feel that their contributions matter, and they creatively thrive under a collaborative model of artistic and intellectual exchange. Revisionist and counterfactual histories of civic participation have made sure not to essentialize participation as exclusively digital or limited to particular cultures and demographics. For instance, in December 2019, the Anthology Film Archives hosted a national traveling exhibition and screening series.[84] The screenings were divided into specific themes, including "Environments of Race and Place," "Wages of Work," "Body Publics," and "States of Violence." Considering these wide-ranging topics, the exhibition expanded the meaning of participatory culture to include multiple participatory cultures, some of which have risen out of necessity and cultural exclusion rather than leisure and creative experimentation for the sake of creating art. The press release for "We Tell" included the following description:

> Participatory community media represents a unique form of short documentary practice produced with communities and the subjects engaged in decision-making and representation. These works embrace and enhance the micro rather than the macro as a production strategy. They shift discourse and debate from the national to the local. Instead of the long-form theatrical feature, participatory community media utilizes the short-form documentary circulating within and across communities and politics.
>
> Rather than one auteur with a single vision, subjects and communities share authorship. Rather than parachuting into a place during a crisis, these

> works emerge out of spaces confronting urgent unresolved issues that have a direct impact on communities. Rather than documentary as a commodity to be consumed passively in a festival, gallery, or broadcast venue, these works envision documentary practice as a way to generate dialogues and galvanize community connections across production, distribution, and exhibition.[85]

"We Tell" offers a historical precedent for the emergent field of contemporary interactive documentaries (i-docs), a practice that has directed more attention to the rhetorical potency of the non-/multi-linear and multiauthorial affordances of interactivity, as well as to participatory art's potential for social engagement, cultural impact, and new historiographies—aspects I also examine in this book through various critical lenses.[86] The fact that many i-docs use interactivity as a means of revising or expanding hegemonic historical narratives to reveal aspects of marginalization and exclusion is an objective that unites this seemingly novel practice of i-doc filmmaking with the goals of older traditions of participatory community media practices. Collaborative and crowdsourced i-doc practices are particularly apt for documenting monumental and traumatic events that cannot be adequately captured through traditional forms of mediation and narration. Examples include i-docs that cover events and crises from multiple and previously untold perspectives, such as the L.A. riots of 1992 (*K-Town '92* by Grace Lee and contributors, 2017), the Occupy Wall Street movement (*99%: The Occupy Wall Street Collaborative Film,* 2013), the Egyptian revolution of 2011 and the Arab Spring (*#18DaysInEgypt,* crowdsourced, 2011+; *Filming Revolution,* Alyssa Lebow and contributors, 2015), and the refugee crisis (*We Are Not Together,* by Alex Nezam and refugee contributors, 2017).

We must keep in mind a more critical yet rarely expressed stance on participatory community-oriented activist art so as to keep the uncritical celebration of the empowering potential of these projects in check. One of the most outspoken critics is Clare Bishop, who argues that socially engaged work is often exempt from art criticism and is instead uncritically praised for its morally superior intentions, regardless of whether its actual impact rises up to the calls for action that are set out in theory and in artist statements.[87] This concern is certainly applicable to related practices such as i-docs, which typically offer the illusion of a more liberal and open-ended structure but can just as easily use interactive mechanisms as tools of ideological persuasion and one-sided rhetoric. Thus, I note that questions of

authorship surpass aesthetic preoccupations with auteurism and the subjectivity of a particular point of view; such questions extend the notion of authorial bias to more significant questions regarding authority, political agendas, and sociocultural participation. While many of these projects undeniably provide promising collective action paradigms, they often highlight certain divides in participation beyond the digital divide (simplistically referring to primarily technological access and digital proficiency), such as economic, sociopolitical, and labor-specific hindrances that do not provide equal weight and credit to contributors' voices. While it remains to be seen whether contemporary interactive practices can be as radically innovative and boundary breaking as their avant-garde and grassroots predecessors, we can still productively consider their hybridity as a means of reflecting on broader definitions of identity and interactivity across different media and technologies.[88]

Furthermore, the proliferation of interactive ways of telling stories and recording events points to a growing dissatisfaction with traditional modes of cultural expression and with top-down news outlets, as evidenced by the popularity of nontraditional cosmopedias (alternative knowledge spaces) like Wikipedia and whistle-blower sites including Wikileaks.[89] Interactivity has also been used to pioneer new formats for telling previously silenced and censored oral histories in a way that is appropriate for the specific cultures they relate. A notable example is *The Quipu Project,* which uses a contemporary interpretation of the quipu messaging system used by the Incas and ancient Andean peoples in order to shed light on the nonconsensual mass sterilization of mostly Indigenous peoples in Peru during the 1990s.[90] Interactive formats that encourage the coexistence of multiple perspectives and temporalities seem well suited to social justice projects that do not deal with unilateral histories and representations, and they provide opportunities to expand the uses and interpretations of interactivity—from the collective and activist to the subjective and personal.

Although paradigms of collective authorship seem suited for activism, that does not mean that social justice is always achieved as the end goal when it comes to real-life impact and audience reception. Nevertheless, some noteworthy attempts to alleviate social discontent about uneven civic participation have adopted similar strategies as i-docs and community media, in cases such as India's national public rupee design competition in 2010, Brazil's groundbreaking crowdsourced law for the Internet Bill of Rights

(Marco Civil da Internet/Brazilian Civil Rights Framework for the Internet, Law No. 12.965, 2009–2014), and the 2020 global #HackTheCrisis hackathons to collectively brainstorm solutions for the Covid-19 pandemic. These participatory efforts raise similar questions as their i-doc and other interactive media counterparts in terms of unequal access and participation gaps; experts versus amateurs; national, state, or other centralized authority versus grassroots movements, intellectual property, and patents; cheap or free labor; sustained longevity of outcomes beyond the initiative's duration; and so on.

Empowering Interactivity: A Euro-American Myth?

Interactivity has become a mandate in cultural and political spheres, and participation has become the new social currency. As the postcolonial and the counterhegemonic examples above suggest, the myth of empowerment via participation—now extended to technological interactivity—is a predominantly Euro-American phenomenon. Cayley Sorochan aptly pinpoints the contradictory nature of participation:

> On the one hand, it promises collective emancipation and individual self-empowerment; on the other, it incorporates energy, creativity, and labor into the reproduction of existing institutions and power structures. This ability to circulate widely and compel affirmative responses indicates that participation has attained the status of ideology.[91]

In German, there are two words for participation that indicate differences in the degrees of participatory involvement and participant impact: *teilnahme* (taking a part in something) and the less active *teilhabe* (being involved in or having a part in something).[92] This more nuanced variable definition of participation also corresponds to the different levels of interactivity we will encounter in this book. To add even more complexity to the notion of media participation, we should regard the collectivity it promises as the interconnected outcome of historical and sociotechnical conditions that all function relationally, as participation simultaneously shapes technological contexts and user behavior.[93]

The proliferation of fake news and alternative facts condition us to be critical consumers of information, but this excess of informational data also

runs the danger of polarizing public opinion to a counterproductive point of fragmentation, opinion bubbles, and echo chambers. Networked media and other forms of online connectivity may offer the illusion of a more socially connected world, but this is far from the utopian idea of a spiritually networked trans-/post-human consciousness machine envisioned by expanded cinema visionaries such as Gene Youngblood and Stan VanDerBeek in the 1960s and 1970s. As curator Nicolas Bourriaud observes, "Today, we are in the further stage of spectacular development: the individual has shifted from a passive and purely repetitive status to the minimum activity dictated to him by market forces," and media consumers are often reduced to "extras of the spectacle."[94] The cultivated need to connect through interactivity, a desire that expressive uses of interactivity also capitalize on to differentiate from so-called passive modes of art consumption, often contradicts the desire for personalization and individual agency associated with interactive technologies. Therefore, collectivist imperatives and solipsistic functions of interactivity remain unreconcilable in most participatory cases regardless of the context (creative, instructional, technical, corporate, and so on).

Yet those utopian countercultural ideas associated with interactivity have been co-opted by mainstream rhetoric to shape and control participatory modes of sociocultural engagement. Furthermore, the very design of infrastructure—protocols and algorithms (Alexander Galloway, Finn Burton, Helen Nissenbaum, and others have demonstrated and refuted via obfuscation and hacktivism)—standardizes and streamlines mediated interactions to the point where a radical departure from those contexts might mean reinventing the entire infrastructure of global and interpersonal communications. How can we begin to reinvent something we do not fully know or completely access, yet have been conditioned to think of as the default in global networking? Still, traditions and languages that do not fit into automated and standardized normative systems can help gradually challenge and expand the prescribed functions of reading/writing interfaces and web access, as is the case with Arabic languages and Chinese characters.[95] Cultivating a type of media literacy that surpasses content and extends into infrastructure and software and/or hardware can be a productive first step to recognizing the inequalities users have become complicit in via interactive mechanisms.

Interactivity and certain forms of sociopolitical participation are becoming compulsory citizenship-affirming processes that can facilitate data mining and other forms of consumer surveillance. It is becoming nearly impossible to count socially and politically unless being counted. The distillation of aspects of the self into public platforms that serve functions such as professional networking and work promotion can contribute to a sense of desubjectification through the algorithms of customization rather than carve paths toward more egalitarian participation in modes of production, media consumption, and civic engagement. This observation overlaps with Bishop's arguments regarding the instrumentalization of participatory art and other social practices by British New Labour (1997–2010) and other movements that utilized a "social inclusion agenda" not to forge social bonds and solidarity but to "enable all members of society to be self-administering, fully functioning consumers who do not rely on the welfare state and who can cope with a deregulated, privatized world."[96]

In her book *If . . . Then: Algorithmic Power and Politics* (2018), Taina Bucher updates "the threat of visibility" inherent in Foucault's panopticon to the "threat of invisibility" of social media culture, where "the problem is not the possibility of constantly being observed, but the possibility of constantly disappearing."[97] This kind of visibility is, of course, not just understood in optical terms, but it still retains part of its visual quality because most forms of social media are predominantly visual in their content and in the ways they present information. In order to participate in the social media realm, one has to be seen—and seeing here is amplified, rather than undermined, by algorithmic and machinic ways of seeing and being seen. Unsurprisingly, the threat of invisibility disproportionately affects and often further otherizes minority groups, who in their efforts to become more visible (for instance, through social media) can instead trigger systemic biases that are now embedded in algorithms programmed to automatically censor and oppress their views (and their viewing).

We can easily argue that interactivity, particularly in social and mass media, often distracts and steers the public away from important issues and elevates the trivial; it also may foster an illusion of self-importance in terms of sharing opinions. Interactive cultural practices mediated via digital and mobile platforms (such as Instagram and X/Twitter) forge communities based on primarily precarious and time-specific issues, at times failing to

actually mobilize long-term solidarity for causes that make a lasting social or political impact—an issue that is sometimes exacerbated by the tenuous existence of tools and platforms. Issues of longevity and sustained engagement extend to interactive projects that aim for civic engagement and social change, where the momentum can be short-lasting in part as a result of the precariousness of digital platforms and their lack of preservation initiatives. In revisiting pioneering i-docs, for instance, I noticed that even high-profile and institutionally backed projects such as *Fort McMoney* (David Dufresne and National Film Board of Canada, 2013) are no longer fully functioning; as a result, some important interactive aspects, such as discussion forums, have not been saved for future reference and analysis. Furthermore, certain earlier digital and interactive formats such as Adobe Flash no longer function, which means that pioneering interactive projects such as Friedberg and Erik Loyer's *Virtual Window Interactive* (2007), Flash projects like Olia Lialina's iconic *My Boyfriend Came Back from the War* (1996), The Kissinger Twins' award-winning web cinema *Sufferosa* (2010), and the multimedia journals *Vectors* (edited by Tara McPherson and Steve Anderson, 2005–13) and *CTHEORY Multimedia* (edited by Tim Murray, and Arthur and Marilouise Kroker, 2000–2003) are no longer accessible in their original contexts.[98]

To complicate (without undermining) the above criticisms, this book also includes counterexamples of empowering interactive media practices and civic engagement campaigns that subvert ideological structures and challenge some of the perceived schisms within the global north–global south divide by shifting the focus to internal socioeconomic and ideological divisions within those divides; examples include DIY media, culture jamming, and low-/no-tech initiatives. The case studies I picked are not inherently empowering because of their technical interactivity but because of their deployment of some of the above-listed strategies and the desires that underscore their usage.

Alongside my complication of the practices and outcomes of IC, I would like to propose a more nuanced and diverse approach to the frequently vilified Euro-/U.S.-centric approach that is typically seen as homogenous, homogenizing, imperialist, and narrow-minded. Although the research for this book began with a Euro-/U.S.-focused base, this was mostly by geographical and historical default; in other words, the research sites and events

closest and financially accessible to me as a low-income graduate student were located in Europe and the United States, and so were the most retrievable institutionalized media histories at the time this research began over a decade ago. Within the last decade alone, much has changed in terms of counterhegemonic media historiographies, media archaeology methods, and cross-cultural archival initiatives, partly due to factors such as the digital humanities turn, the increasing emphasis on intersectionality, and the consideration of more transnational contexts in humanities research; in response, the focus of my book has productively expanded to address new environments and engage with newly emerging epistemic gaps.[99]

When I first began researching and teaching IC in 2009 as a graduate student in the United States, there was a noticeable lack of, for instance, Asian examples of expanded and interactive cinema practices in both English and Asian scholarship and practical contexts—with the exception of mainly U.S.-based experimental artists, including Fluxus members Yoko Ono, Yayoi Kusama, and Nam June Paik. Although such figures are sometimes framed in nationalistic terms, their internationally prolific work, particularly in the United States and Europe, often disassociates them from Asian-only contexts. As a result of this gap, I initially had the impression that interactive art was mostly a Euro-American phenomenon, but that could be due to the lack of historicization of examples from other continents. This book brings attention to certain overlooked ICs from different parts of the world that I came across during my scavenger hunt, but unfortunately the sometimes limited access and availability through archives and cultural institutions dictates the range of films I was able to closely watch. Nevertheless, including some historically overlooked examples serves to highlight certain lesser-known uses and contextually specific ideologies associated with interactivity. At the same time, the inclusion of more international works brings up some surprising similarities among ICs that have transcended geographical, cultural, historical, and institutional boundaries—the strongest of which is the desire for new forms of public consciousness through new modes of participation in mass media like cinema.

As an example, let us briefly consider an overlooked yet significant Asian interactive film that speaks to this desire for change: Taiwanese new-wave director Ko I-Chen's *Lan Yue* (*Blue Moon,* 1997), a modular film that has connections to the now-popular categories of database cinema and

recombinatory narrative (to be covered in more detail in chapters 2 and 3). *Lan Yue* takes its literal name from a second full moon that occasionally appears in the same calendar month and alludes to the blue moon's metaphorical significance: it happens once in a lifetime. The film consists of five twenty-minute reels that can be projected in any order, resulting in 120 possible versions of the film, and the work "demands the viewer's creative participation [to] construct a continuous narrative by positing some reels as flashbacks, as flash-forwards, or as events that transpire in a parallel universe."[100] Narratively, *Lan Yue*'s multiple storytelling possibilities have similarities to other styles of multiple-draft or multiperspective mind-game films like *Rashōmon* (Akira Kurosawa, 1950), *Blind Chance* (Krzysztof Kieślowski, 1987), and *Run Lola Run* (Tom Twyker, 1998)—formatively innovative films that fittingly and consequently emerged during times of cultural transition.[101] Without being overly deterministic about contextualization, it is hard to overlook the fact that *Lan Yue,* with its characteristic indeterminate chronological format, was filmed during a (then) indeterminate transitional phase in Taiwanese history. Notably, it was produced during the period of Taiwan's first direct presidential election in 1996, which led to the election of "Mr. Democracy," Lee Teng-hui. Lee Teng-hui was the first Taiwanese-born president of the Republic of China and an instrumental figure in initiating Taiwan's transition to a democracy. At the time, Taiwan's fate and reconfigured national identity seemed to be left up to chance. Taking into consideration this historical context, *Lan Yue*'s meditation on contingency and fate—philosophically interspersed with spirituality and transcendentalism—becomes more than universally and transhistorically resonant, carrying with it a national specificity that speaks to a particular historical moment of cultural transition.

Unlike some other feature films I cite in this chapter and others, *Lan Yue* is not easily accessible in Europe and the United States, and it has only been fragmentarily documented in English, which explains why it has escaped much critical attention internationally.[102] The film's ephemerality adds more cinephilic value to *Lan Yue* as a context-specific film event rather than as only a film object. In this respect, *Lan Yue*'s elusiveness and unique experiential quality are typical of certain site-specific and performative types of cinema that can only be revisited through subjective recollections (preserved via film reviews), by video, audio, and/or textual documentation, and by

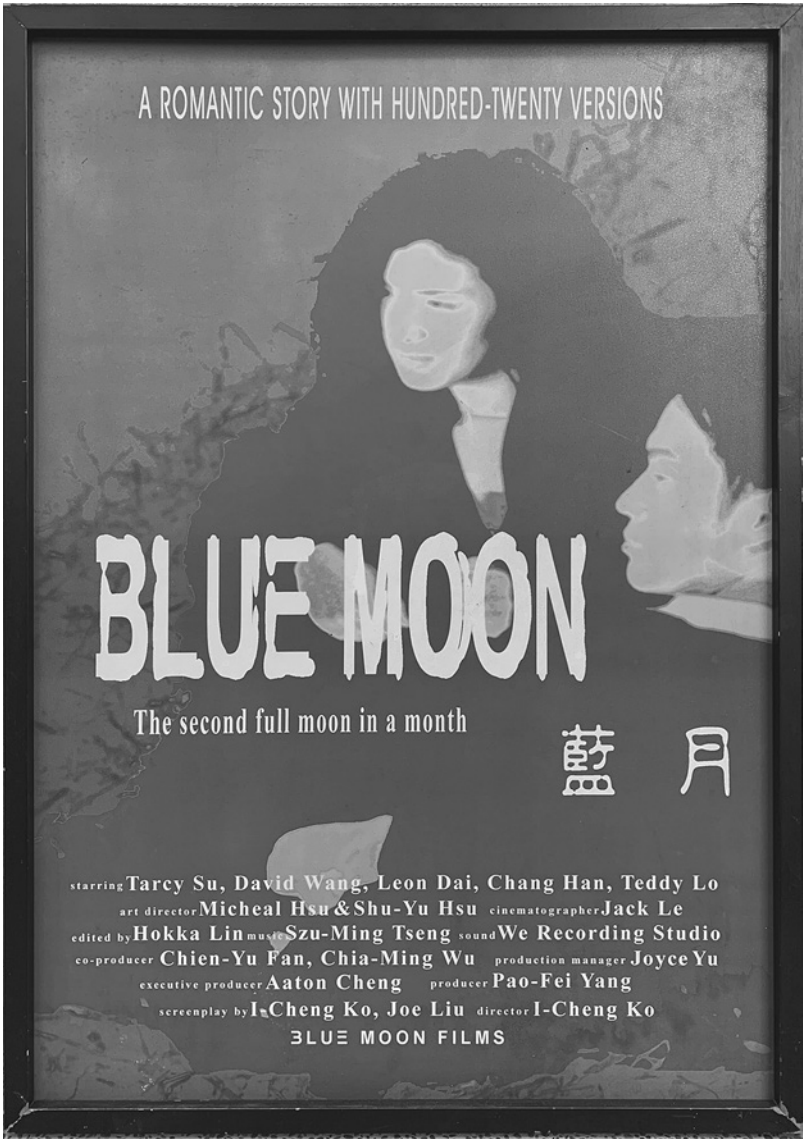

FIGURE 2. Director's photograph of the original 1997 *Blue Moon* international poster hinting at the film's unconventionality. Courtesy of I-Chen Ko and Blue Moon Film Production.

remediated versions (digital, DVD); this overlaps with preservation, access, and ethical issues that I will cover in more depth later.

Films (and regions) excluded from interactive studies such as *Lan Yue* marked a significant turning point in my research because this exclusion raised the question of what other contexts had not been considered in the literature and canons of IC (and cinema at large); this also hinted at the need to look beyond object-oriented historiographies to include ephemerality as a historicizing tool—something that *Seances* also brought to light. More cross-cultural connections then emerged as I began to discover some less conspicuous connections to Asian traditions in Western examples of IC. The Japanese tradition of *benshi* (弁士), otherwise known as *katsuben* (活弁) or *katsudō-benshi* (活動弁士)—in which performers or lecturers deliver live narration of silent films—was not only adopted by Asian countries like Taiwan (where it was called *piansu,* 辯士) and Korea (*byeonsa,* 변사) but also adapted in Brazil and India and used during the first years of the Brezhnev era in the USSR; these film interpretations are regarded as the predecessors to film dubbing. The *benshi* tradition has also been incorporated into hybrid cinemas that have a performative aspect, such as the Czechoslovakian *Kinoautomat,* which features a more interactive version that resembles an early prototype of a veejay who interjects during the screening and directly interacts with the audience. IC artist Toni Dove has drawn inspiration for her own performative cinematic hybrid, *Lucid Possession* (2013), from *bunraku* (文楽), also known as *ningyō jōruri* (人形浄瑠璃); *bunraku* is a kind of traditional Japanese puppet theater dating back to the sixteenth century that features collaborations between chanters (*tayū,* 太夫), puppeteers (*ningyōtsukai* or *ningyōzukai,* 人形遣い), and musicians playing the three-string *shamisen* (*samisen,* 三味線).[103] *Lucid Possession* provides an interesting adaptation of *bunraku* for the digital age by incorporating video, audio, robotic screens, veejays, live music, and performative elements. The tradition of shadow play, or shadow puppetry, is another influence in contemporary Western IC. Shadow play has roots in Southeast Asia (especially in Malaysia, Thailand, Cambodia, and Indonesia) and is also a living folk tradition in India, China, and Nepal, in addition to countries like Greece, Germany, France, Egypt, and Turkey. The collective called Manual Cinema is perhaps the most internationally well-known contemporary U.S. ensemble that incorporates shadow play into their live performances of expanded

cinema. Stephen Herbert even goes so far as to speculate that the tradition of shadow theater developed into the use of projected slides and was foundational in the evolution of cinematography.[104]

Cross-cultural influences also exist within hegemonic constructs like Europe (and particularly the European Union), where impactful creative broadcasting networks such as the Nouvelles Écritures (new transmedia writings) and ARTE (Association relative à la télévision européenne, or Association Relating to European Television) helped launch new inter-European and international coproductions that simultaneously encouraged other, previously marginalized and postcolonial territories in Europe to have a stake in new inter- and cross-cultural modes of digital and multimedia coproduction. And thanks to new modes of grassroots production and distribution, previously marginalized E.U. nations such as Greece have thrived under independent and crowdsourced modes of artistic creation. In 2015, for instance, Greek director Stathis Athanasiou launched *Alpha,* "a transmedia cinematic performance" (consisting of a feature film, live performance, Creative Commons media remixes, and an interactive website) that is notably the "first exclusively crowdfunded art project in Greece," and the second ever entirely crowdfunded project in Europe.[105] Before the critically acclaimed *Alpha,* Greece was not even on the radar in terms of large-scale transmedia art, unlike its higher-profile, more affluent E.U. counterparts such as France, Britain, and Germany.

Territorially decentralized interactive collaborations add yet more complexity to sweeping arguments regarding the culturally imperialist imperatives of contemporary European and U.S. politics. Influential multimedia art pioneers such as Nam Jun Paik, Shu Lea Cheang, Jeffrey Shaw, Olia Lialina, Peter Weibel, VALIE EXPORT, Grahame Weinbren, Zoe Beloff, and Dirk de Bruyn have worked in multiple places, including cultural contexts that were previously overlooked in scholarly discussions of digital and interactive art, such as Asia, Canada, and Australia. Thus, although Eurocentric cultural imperialism is certainly not extinct or irrelevant, the study of ICs brings to light certain bidirectional aspects of creative and cultural cross-pollination that circle from the so-called first to the third world and from the global north to the global south, while also traversing those territories' internal diversities—albeit at different frequencies and with varying impacts—thus challenging externally imposed borders among those territorial categories.

Further complicating interactive taxonomies based on geopolitical regions, some significant breakthroughs in expanded cinema experiments in the 1960s and 1970s actually came from then-communist countries such as Czechoslovakia (e.g., Radúz Činčera and Czech American Alexander Hammid) and Poland (e.g., the Lodz Film Workshop, aka the Workshop of the Film Form), who participated in popular world expos and global innovation forums to raise the Soviet Union's international profile as a pioneering force in technology and the arts. Polish critic Piotr Piotrowski points out that in the context of the post-Soviet 1990s "new Europe," the "so-called Western, liberal, democratic ideology appeared to produce an opportunity for pluralistic, heterogeneous art (and art history), while in the East the stereotypical view of art, based on a more uniform ideological background, seems to suggest a more homogenous image of art and history."[106] Adding more nuance to the position of the East within the West in this case, Maxa Zoller argues that Polish avant-garde art in the 1970s challenges Peter Bürger's Western definition of the avant-garde because in Poland the avant-garde did not operate autonomously, independently, or counterculturally. Instead, it was either funded by the Communist Party to promote its agenda of progress or "occupied a pragmatic position that sought to bridge state ideology and artistic autonomy."[107] In more recent contexts, Eastern Europe and the Balkans are often overlooked in terms of global attention to their interactive media art production, yet this oversight is not justified, especially given the increasing number of digital media exhibitions and conferences (some of which will be discussed later), as well as breakthrough coproductions in interactive and immersive projects and cinematic video games including the Polish–Ukrainian docugame *Chernobyl VR Project* (The Farm 51, 2016) and the Serbian choose-your-own-adventure story *Über Life* (Lazar Bodroža, 2010). In the following chapters, I explore connections to former Soviet Europe and to Cold War politics through pioneering interactive works such as *Kinoautomat* and *Troubles with Sex, Theory & History* as well as the Soft Cinema series.

The culturally and historically fluctuating ideologies associated with the avant-garde are also evident in how the meaning of the notion of interactivity varies according to different contexts. Theorists and art critics from postcommunist regions, such as Lev Manovich, Alexei Shulgin, and Boris Groys, are critical of the democratizing and empowering potential ascribed

to interactive technologies. In the 1990s, during the peak of the (mostly) Western hype surrounding interactive technologies such as VCRs, personal computers, and video games, Shulgin strongly voiced his mistrust of interactivity in arguing that the latest technologies are used to manipulate people by exploiting their "banal will for power."[108] For Shulgin, the term "interactive" is not distinct from other 1990s buzzwords such as AI, personalized interfaces, and even the very term "communication"; he sees the use of such technologies in media art as a marker of the "transition from representation to manipulation." Lev Manovich amplifies this criticism and widens the East–West ideological divide.[109] He argues that in Eastern Europe, interactivity is just another form of manipulation and a means of strengthening totalitarianism, while in the West, the rhetoric of interactivity is usually associated with superficial egalitarianism and democracy. Manovich's statement, though valid to an extent, runs the risk of essentializing and dichotomizing East (implicitly Eastern European and formerly communist) and West (mainly the United States and Western Europe), overlooking more nuanced and diverse approaches to interactivity that cut across cultural and political borders.

Controversially, as some case studies from former Soviet Union and communist contexts will show, hegemonically defined ideals of democracy overlap with totalitarian realities more than either the West or the East are willing to acknowledge. Through case study of the Czechoslovakian new-wave interactive film *Kinoautomat* as well as other examples from authoritarian regimes, I add more complexity to the East–West ideological and cultural divide. Such cases suggest that even within historical communist and other pre-/non-digital contexts, there was still some subversive potential attached to interactivity as a challenge to the status quo, particularly in cases where the term "voting" was synonymous with the now more commonly used buzzword "interactive." This book therefore reframes Bishop's argument that artistic models of democracy only have a loose relationship to actual modes of democracy.[110] My approach is not particularly concerned with whether interactive spectatorship accurately reflects other prominent sociopolitical and cultural modes of participation; nor do I want to conflate ethics with politics as they are often conflated in political agendas. I do not consider cinematic reconfigurations of participatory processes to be simulations or directly mimetic but rather critical tools that permit us to

interrogate democratic policies that vary across historical and cultural contexts, and that act as templates for considering different participatory strategies and interactive tools in relation to governing systems and behavioral patterns.

As a result of the multilinear nature of the subject matter and the limited space in print, I provide online extensions to this book in the form of my own research blog with media links and documentation of ephemera, as well as through a collaborative media archive that contains invaluable contributions from my students and from artists whom I encountered along this journey.[111] This makeshift, open-ended, and low-budget means of collectively creating, documenting, curating, and analyzing ephemeral media is appropriate, given the informal and ad hoc conditions through which many of the projects came to exist in the first place. I consider this book and its extensions as the beginning of a larger media ecosystem that will eventually include a digital interactive version with access to more detailed documentation and emulators.

An ongoing critical and logistical question for readers to consider as they navigate the book is how to write about subjective, transient, and underdocumented media without perpetuating the issue of non-/underdocumentation and limited access and/or accessibility. Considering this open-ended question provides a sense of my own self-critical reflections as I was writing this book. Because of the elusive nature of many interactive projects that, ironically, often have their democratizing and activist intentions undercut by issues of limited access, the abovementioned archival sources are more akin to memory collections than to full material repositories of the actual media. Furthermore, user-produced documentations such as let's plays (video recordings of playthroughs) and blogs become important amateur archives of fugitive interactive media. In fact, some of my own historical investigations have benefited from the digital traces of these media documented by users and fans; some of my own DIY and often poor-resolution mobile phone documentations have outlived higher-quality, professionally shot ones. My decade-long scavenger hunt led me to track down decent images to include in my book, scouting the internet Archive's Wayback Machine for websites that had disappeared by the time my book went into production. (I recommend checking the Wayback Machine in case of any more disappearing links after publication.)

The burden of representation and conclusive contextualization is lessened by the acknowledgment that we can never get close to the supposedly original objects and to first encounters through documentation and remediation but that there is nonetheless value in our own analytical excavation as a mnemonic placeholder for something that once was—in a similar vein as the aforementioned *Seances* project. The productive aspect of this acknowledgment is that the users' own subjective experiences can play a part in ushering a new era of interpersonal and socially connected historiography that takes into consideration contextual and material distance to create new paradigms of variable media analysis that still feel intimate despite being physically distant. Formulating such new analytical paradigms and subjective historiographic models is one of the ultimate takeaways I want my readers to have from this book, and to adjust those flexible methodologies and frameworks to their own interests and practices.