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Haptic Media: Sexuality, Gender, and Affect in Technology Culture, 1959–2015

A dissertation submitted in partial satisfaction of the
requirements for the degree Doctor of Philosophy
in Film and Media Studies

by

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ABSTRACT

Haptic Media: Sexuality, Gender, and Affect in Technology Culture, 1959–2015

by

Diana M. Pozo

The rise of haptic technologies in the media industries—from touchscreens that touch back, to vibrating videogame controllers and moving and vibrating cinema seat technologies—is just one indication of how contemporary social, news, and entertainment media increasingly engage their audiences through touch, embodiment, and affect. Media scholars have theorized film spectatorship as haptic, or have studied haptic technologies and human computer interaction at the site of the interface. This project proposes a theory of *haptic media* that combines multiple definitions of the sense of touch into a framework for understanding fantasies of immersive media, based on studies of sexuality, embodiment, and affect in North American technology culture, beginning in the mid-20th century. Using examples from queer videogame culture, cinema seating technologies from *The Tingler* (dir. William Castle, 1959) to D-BOX, and the relationship of virtual reality systems to fantasies of “teledildonic” virtual sexuality, *Haptic Media* argues that the field of fantasy-laden media technology development long associated with the “new” could productively be re-framed in terms of the “haptic.” This shift from new media to haptic media centers marginalized bodies

in media politics, an approach with broad relevance across the fields of film theory, feminist media studies, videogame studies, queer theory, media history/historiography, fan studies, and the history and philosophy of science.

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Introduction: Media and the Sense of Touch

Touch is a “style of being” shared by both film and viewer . . . the forms of tactility that filmgoers experience are shared—in complex, not always comfortable ways—by both spectator and film.

— Jennifer Barker, *The Tactile Eye: Touch and the Cinematic Experience*¹

Film theorists and historians, and most casual consumers, know that media engage the sense of touch. Yet film, digital media, and sometimes videogames, are still commonly imagined as primarily audiovisual. Touch continues to appear as a gimmick or specialty feature, a particular aesthetic of art or the avant garde, or a futuristic dream of the digital sublime. This project expands upon existing models of cinematic tactility, haptic engagement, affect, and embodiment, and existing studies of haptic technology, to study film, videogames, and digital virtual worlds as primarily *haptic media*. The concept of the “visual medium” has exposed a range of aesthetics and looking relations that formed the ideology of classical Hollywood cinema and the counter-ideology of independent and experimental film. Similarly, taking the sense of touch as the center of media production and consumption is a useful framework for understanding the role of touch, affect, and embodiment in the discourse and politics of digital media and interactivity, and how these structures have been challenged. No longer a

¹ Jennifer Barker, *The Tactile Eye: Touch and the Cinematic Experience* (Berkeley: University of California Press, 2009), 2.

challenge to dominant ocular-centric cinema and media, haptic media are the new media mainstream, inspiring haptic challenges to their dominance.

An Origin Myth

Sometime in the early 1990s, I was first told *not to touch the screen* of an early model IBM PC, at the house of a friend whose father was a meteorologist. I was probably pointing out an important detail of *Treasure Mountain!* (The Learning Company, 1990) when I stole that first touch, forbidden for fear of fingerprints on the screen, or worse, damage to the screen itself. Screen paranoia was the rule in my home as well, where I was strictly cautioned to stay at least six feet away from the television to avoid damaging radiation. My family's VCR was equally hazardous: press Record and Play at the same time on a favorite videocassette and it would be erased forever. Media experiences were becoming ever more touchable, however. Children's museums featured touch screens at their locked-down computer consoles. Arcades had racing games where users could sit on a miniature motorcycle and move from side to side to steer. My elementary school had a "take apart" station filled with cast-off electronics and kids smashing things with hammers. Shoot-em-ups with light guns, which I definitely wasn't supposed to touch ("videogame violence"), occupied every box store entryway and movie theater lobby.

Cinemas with moving seats appeared first at theme parks, then in certain high-income suburbs. Motion games like *Dance Dance Revolution* (1998) appeared first in arcades and movie theaters, then in home consoles like Nintendo's *Wii* (2006), and as motion control upgrades like Microsoft's *Kinect* (2010), Sony's *PlayStation Move* (2010) and the PC-friendly *Leap Motion* (2010); finally these upgrades became standard with the release of

eighth-generation consoles like Xbox One (2013). Touchscreens and touchpads have also become part of every sector of game design since the 2004 release of the Nintendo DS handheld system, from mobile games on smartphones, to “small” PC games employing laptop touchpads, to the touchscreen or touchpad on nearly every eighth-generation console controller. Virtual reality systems, which had a moment of dizzying yet disappointing ubiquity in the 1990s,² have re-emerged as consumer products from the high-end and unavailable Oculus Rift (Oculus VR, 2016) to the middle-range Samsung Gear VR (2015) and mass-market Google Cardboard (2014). Finally, toys increasingly featured Artificial Intelligence (AI): I grew up talking to an animatronic Big Bird with a cassette tape player in its derrière (“Big Bird StoryMagic,” Ideal Toys, 1986), and Furby (Tiger Electronics, 1998), a robotic pet that responded to care and gradually learned to speak English. Both were only semi-huggable, with plush exteriors inadequately masking hard plastic skeletons. Jabberwacky (Rollo Carpenter, 1997), an early AI descendent of ELIZA (Joseph Weizenbaum, 1966), was one of my earliest online text chat buddies. Today I touch a button or screen on my iPhone to talk to Siri (Apple, 2011), Apple’s disembodied AI.

To media scholars of the 1990s, this drama of increasing physical and emotional intimacy with media interfaces served as an example of the way my generation was immersed in media, from Marsha Kinder’s image of young millennials awash in transmedia franchises like *Teenage Mutant Ninja Turtles* in *Playing With Power* (1991) to Alluquere Rosanne Stone’s musings on her young daughter’s face in the glow of a mainframe computer

² For an account of 1990s Virtual Reality technology and development, see Howard Rheingold, *Virtual Reality: The Revolutionary Technology of Computer-Generated Artificial Worlds – and How it Promises to Transform Society* (New York: Simon and Schuster, 1992). For a discussion of the future and past of new media imaginaries, see Wendy Hui Kyong Chun, *Programmed Visions: Software and Memory* (Cambridge: MIT Press, 2011).

in the conclusion to *The War of Desire and Technology at the Close of the Mechanical Age* (1995).³ While my childhood self might have looked close to, even been immersed, in media technologies, I never felt close enough. I wanted to touch, feel, and hold media worlds and the computers that often housed them, and have them touch, feel and hold me. Sherry Turkle argues that my generation were the first to consider interactive computer toys like Tamagotchi (1996) and Furby “emotional machines,” “having feelings and needs,” a development that has made us “expect more from technology and less from each other.”⁴ However, the distinction between “technology” and “each other” is blurred in my experience: the movie *Her* (dir. Spike Jonze, 2013), depicting a relationship between a human (Joaquin Phoenix) and a computer operating system (voiced by Scarlett Johansson), reminds me eerily of my own long-distance romantic relationships. I identified with the operating system.

Haptic Media is a project inspired by my lifelong desire to touch media, as content, platform, and interface. In particular, the term *haptic media* refers to media that employ the sense of touch as a communications medium. However, it also refers to those that immerse and manipulate the body without stimulating the skin. For example, the moment of haptic communication could be as simple as a phone vibrating in your pocket, or as complex as a specialized seat in a home or commercial movie theater. Seats by the Canadian company D-BOX (1992) vibrate, tilt, pitch, roll, and heave in time with a “motion code” track added to

³ See Marsha Kinder, *Playing With Power in Movies, Television, and Video Games: From Muppet Babies to Teenage Mutant Ninja Turtles* (Berkeley: University of California Press, 1991); and Allucquère Rosanne Stone, “The Gaze of the Vampire,” in *The War of Desire and Technology at the Close of the Mechanical Age* [1995] (Cambridge, MA: MIT Press, 2001), 165–84.

⁴ Sherry Turkle, *Alone Together: Why We Expect More from Technology and Less from Each Other* (New York: Basic Books, 2011), 31.

hundreds of traditional films, an updated version of theme-park movie rides like Disney's *Captain EO* (1986-94, revival 2010-15) and *Star Tours* (1986-2010) and *Star Tours—The Adventures Continue* (2011-), as well as similar rides at Universal Studios theme parks. I first tested virtual reality through an artist's game at the 2015 Queerness and Games Conference at the University of California Berkeley. The game's viewpoint instantly reminded me of Jean-Louis Baudry's description of the camera as the "eye of the subject."⁵ I was a single eyeball floating above a pink and purple tiled floor, as geometric shapes floated like gemstones around me. Virtual reality experiences such as this demonstrate the importance of traditional looking relations in the discussion of immersive media, as well as the continuing relevance of disembodiment in media consumption.

Haptic media may be broadly *immersive* like this virtual reality experience, or it may be *kinesthetic*, producing the illusion of embodied sensation through the disembodiment and limited viewpoint of traditional cinema and virtual reality. It may be *affective*, appealing to the emotions and embodiment of viewers to produce visceral sensations. *Cutaneous* haptics, which use touch as a communications medium at the surface of the skin using *haptic force feedback* have become ever more common, used in flight simulators, videogame controllers, medical training devices, touchscreens, and sex toys.⁶ While most instances of haptic force feedback help users communicate with a machine, adult novelty technologies that link sex

⁵ Jean-Louis Baudry, "Ideological Effects of the Basic Cinematographic Apparatus," trans. Alan Williams, *Film Quarterly* 28, no. 2 (Winter 1974–75), 39–47. JSTOR, <http://www.jstor.org/stable/1211632>.

⁶ "Cutaneous" is a term borrowed from perceptual psychology. See Yvette Hatwell, "Introduction: Touch and Cognition," In *Touching for Knowing: Cognitive Psychology of Haptic Manual Perception*, Yvette Hatwell, Arlette Streri, and Edouard Gentaz, eds. (Philadelphia: John Benjamins, 2003), 2.

toys through the Internet, sometimes called *teledildonics* or *cyberdildonics*, employ haptic force feedback communicated through a digital network to link two human users.

Somewhere between and among the kinesthetic, affective, immersive and cutaneous is the mainstream of haptic media, the ways in which the small devices we use on a daily basis are constantly and imperceptibly engaging our sense of touch and our affective worlds. The grease on a touchscreen from fingers and faces. The crumbs in your keyboard. The jump in your stomach when a cute person matches with you on Tinder. The heart-thumping moment of knowing a text partner is typing, but not knowing what they will say. The phantom vibration in your pants where your phone used to be. The step-tracking app that helps you measure your physical fitness. The social media “likes” that help you measure your social worth. This project argues for the importance of haptic media as a theoretical framework, by highlighting moments of struggle between this mainstream of haptic media and newer or more countercultural haptic challenges (which I call *counterhaptic*—more about this later), from the mid-20th century to the present. However, the politics of haptic media revealed here apply in all these everyday situations, and more. Haptic media have become dominant, and their feeling relations surround us more every day. The technologized use of touch and affect in media experiences is no longer a specialty gimmick or a feature of the avant garde. The use of touch is ubiquitous across the media industries discussed above, and has been for at least twenty years. However, in each industry, some forms of touch are invisible and standard, while others are considered garish, excessive, or subversive.

Counterhaptics

Haptic Media is a research project born out of affection for the cutaneous, immersive, and affective media that have become increasingly central to US media culture since the 1960s, yet it also engages in a critique of these forms. Rather than positing the haptic with relation to the visible or ocular-centric; the embodied to the disembodied; or the immersive world to the reality of ubiquitous computing, this project sets the haptic in tension with other forms of haptic engagement. Thus dominant *haptics* appear in relation to *counterhaptic* strategies by fans, artists, and critics to stake different claims on the realm of media touch. My development of the term “counterhaptics” to describe haptic critiques of haptic media by haptic media producers is inspired by Alexander Galloway’s term *countergaming*, which is a way of organizing discussions around critical or alternative game designs and game players in videogame studies that has been widely discussed since Galloway coined it in the final chapter of his 2006 book, *Gaming: Essays on Algorithmic Culture*. Galloway discussed the common practice of remixing game graphics in artist mods, and challenged game makers to push further with their critiques of the game medium. “We need an avant-garde of video gaming not just in visual form but in actional form,” he wrote.⁷ “We need radical gameplay, not just radical graphics . . . So countergaming is an unrealized project.”⁸ Since 2006, Galloway’s call has been answered by several waves of alternative game design, including the contemporary queer games movement.

⁷ Alexander R. Galloway, *Gaming: Essays on Algorithmic Culture* (Minneapolis: University of Minnesota Press, 2006), 125.

⁸ Galloway, *Gaming*, 125–26.

Because the study of haptic media is still an emerging area, it may seem that counterhaptics must also be an unrealized project. However, haptic media and their critiques and parodies often exist side-by-side, or coexist within the same project. Robert Yang's kinky "hunk spanking game," *Hurt Me Plenty* (2014) uses motion gaming to both critique and expand sexual representation in videogames. William Castle and Dona Holloway, the provocateurs behind Columbia Pictures' 1959 film *The Tingler* (starring Vincent Price) simultaneously invented and critiqued the use of cutaneous haptics in the movie theater with the Percepto system of vibrating motors distributed along with the film. Lisa Palac, editor of *Future Sex*, parodied future dreams of touch-based virtual reality by running a fictional piece on teledildonic virtual reality "lingerie," yet this tongue-in-cheek fiction also helped launch a wave of popular interest in teledildonics, with some readers believing the 3-D rendered prototypes in the piece were really available new technologies. Palac also provided a critique and alternative to early 1990s visions of virtual reality sex with her CD series *Cyborgasm*, a "virtual sex" experience consisting of dirty stories told in immersive audio. Thus, though some theories of media and touch frame touch-based media as in itself a challenge to the audiovisual norm, haptic media include their own norms that alternative and mainstream producers seek to challenge.

I began my study by engaging in textual analysis of representations of haptic media in fiction, during the summer of 2013. There are countless examples of haptic media in science fiction—from Aldous Huxley's famous (1931) description of "feelies" as the future of cinema, to the various attempts cinema has made to visualize the Internet, to spectacles of human-computer interaction such as in the films *Minority Report* (dir. Steven Spielberg, 2002), *Virtuosity* (dir. Brett Leonard, 1995), *The Net* (dir. Irvin Winkler, 1995), and *The*

Lawnmower Man (dir. Brett Leonard, 1992). I focused on analyzing films that included scenes of sexual interaction through a media interface, and films that advertised popular immersive media experiences like the Power Glove [as seen in *The Wizard* (dir. Todd Holland, 1989)]. For a list of texts I analyzed as part of this project, see Appendix I. This process of textual analysis also served as crucial background research for understanding the representation of haptic media at different points in media history. Discussions of films appear alongside a broader discourse analysis that includes popular and journalistic accounts of factual and fictional technologies, fan materials, magazines, and advertising texts.

In addition to textual analysis, archival research was crucial for my background and historical understanding of haptic media. From October to December 2013, I made frequent visits to the Margaret Herrick Library of the Academy of Motion Picture Arts and Sciences in Beverly Hills, CA, to view and collect press and advertising material on several of the haptic-oriented films in this study. I created my own archives for some portions of this project, particularly for the study of teledildonics. In August 2015 fortunately I escaped what Anna Everett calls the “hyper-ephemerality of the cybertext,” and hastily archived the RealTouch Beta forums before they were taken offline in early September.⁹ I also collected copies of *Future Sex* magazine along with clippings relating to How Wachspress’s Auditac audio-controlled vibrator.¹⁰ Finally, I found *The Joy of Cybersex* (1993) through Anna

⁹ Parts of the RealTouch website before September 2015 can also be found through the Internet Archive Wayback Machine. See “Internet Archive: Wayback Machine,” accessed 19 September 2016, archive.org/web/.

¹⁰ Many of these sources have been archived by Wachspress and Janette Keegan on the Auditac website. I collected some articles not archived there. See How Wachspress and Janette Keegan. “Entertainment Inventions.” Web. www.auditac.com/.

Anthropy's "annarchive," another collection of digital ephemera available to the general public.¹¹

Site studies were some of the most important research sources in this project. My first site study, of the January 2012 Adult Entertainment Expo in Las Vegas, NV, inspired me to pursue haptic media across the mainstream and adult media industries. Scholars studying emergent media cultures have written at length about the importance of the trade show as a site for study, including Amanda Lotz and Henry Jenkins.¹² John Caldwell has also identified the trade show as a crucial space for the performance of media production culture, through what he calls "trade rituals."¹³ Moreover, Lynn Comella has argued that trade shows such as the annual Adult Entertainment Expo, are rich sites for studying the context of adult video and products within a business and industry context.¹⁴ I visited eight sites of haptic media production and distribution across the adult novelty, adult video, film, videogame, and technology industries, and returned at least once to most of my sites (see Appendix II). Some of these case studies led to formal interviews (see Appendix III). Below, I delineate some other methodologies for the study of haptic media used within this project, including the analysis of films and other media, the use of cultural studies approaches, case studies, and interviews, and the place of archival research in this project.

¹¹ Philip Robinson, Nancy Tamosaitis, Peter Spear, and Virginia Soper, *The Joy of Cybersex: The Underground Guide to Electronic Erotica* (New York: Brady Publishing, 1993). This book is out of print, but readily accessible online. See "The Joy of Cybersex," Annarchive, accessed 19 September 2016, annarchive.com/cybersex.html.

¹² Lotz, *The Television Will be Revolutionized*; Henry Jenkins, *Convergence Culture: Where Old and New Media Collide*. New York: NYU Press, 2006.

¹³ Caldwell, *Production Culture*, pp. 69–109.

¹⁴ Lynn Comella, "Studying Porn Cultures," *Porn Studies* 1, no. 1-2 (2014): 64–70.

How to Study Haptic Media: Speculative Methodologies for Speculative Commodities

Because the field of haptic technology and its adoption in the media industries is still expanding, this section takes up some chief methodological concerns in order to delineate a bounded field of inquiry for this project. *Haptic Media* is broadly influenced by the legacy of cultural studies, in particular its application to the study of fans, digital media interactivity and participation, science, and sexuality. However, the concerns that shape this project are also inspired by film theory—in particular the tradition and important contributions of feminist film theory—and studies of labor and economics, in particular Marxist feminism. My use of an interdisciplinary humanities approach to a question of new technology development is in part an attempt to differentiate this project from the field of Haptics, a branch of Engineering concerned with the design and manufacture of haptic technologies on the mechanical and computational levels. Though this project studies haptic technologies as cultural objects and platforms for media development, it also diverges from the field of Platform Studies in gaming in that it does not study their *platform* designs and structures as defined by Nick Montfort and Ian Bogost, namely: “the abstraction level beneath code . . . computing systems and system architecture.”¹⁵ Montfort and Bogost’s approach to the platform has been critiqued for centering design and computational aspects of videogames—reception/operation, interface, form/function, code, and platform—while relegating questions that have traditionally been central to the humanities—culture, context, politics, identity, and inequality, for example—to an amorphous “outside” surrounding but not penetrating digital

¹⁵ Nick Montfort and Ian Bogost, *Racing the Beam: The Atari Video Computer System* (Cambridge: MIT Press, 2009), 147.

media artifacts.¹⁶ Rather than focusing on an understanding of code or platform in haptic media, my project employs key literary and cultural studies approaches, following the call of scholars like Adeline Koh for a “new wave of digital humanities . . . with humanities questions at its core.”¹⁷ What constitutes “humanities methods” after the rise of cultural studies is a difficult question, however, as cultural studies’ dual challenge to elite European taste culture and academic authority has opened the humanities to the use of some methods and concepts from the social sciences, including site studies, participant observation, and interviews.

The choice to discuss the sense of touch at the intersection of science fiction and technological innovation, and at the intersection of sexuality and technology, can be understood within the cultural studies of the late-1990s to the present. Beginning in the 1990s, Simon During argues, scholars including Andrew Ross, Constance Penley, and Donna Haraway challenged the division of science and culture, arguing for the study of what Penley terms “popular science” in and as popular culture.¹⁸ This study of science and technology *as*

¹⁶ A workshop at the 2014 meeting of the Society for Cinema and Media Studies on “Feminist and Queer Platform Studies” critiqued this model, citing a diagram found in *Racing the Beam*. See Montfort and Bogost. *Racing the Beam*, 146; and Lisa Parks, Alexandra Juhasz, Tara McPherson, and Laine Nooney, “Feminist and Queer Platform Studies,” Workshop at the Annual Meeting of the Society for Cinema and Media Studies, 21 March 2014, Seattle, WA.

¹⁷ Adeline Koh. “A Letter to the Humanities: DH Will Not Save You,” *Hybrid Pedagogy* 19 April 2015, Accessed 11 June 2015, hybridpedagogy.com/journal/a-letter-to-the-humanities-dh-will-not-save-you/.

¹⁸ Simon During, “Introduction,” in *The Cultural Studies Reader*, 2nd edition (London: Routledge, 1999), 22; and Constance Penley, *NASA/TREK: Popular Science and Sex in America* (New York: Verso, 1997), 9–10. See also Constance Penley and Andrew Ross, “Cyborgs at Large: Interview with Donna Haraway,” in *Technoculture*, Constance Penley and Andrew Ross, eds. (Minneapolis: University of Minnesota Press, 1991).

culture has become particularly important as cultural production, and even individual and group identity, is increasingly mediated by science and technology, from the 1990s to the present. Anna Everett, an early scholar of the digital humanities, has demonstrated how black technophiles, particularly women in administrative jobs, used online community organizing and activism since the early days of the Internet, belying 1990s discourses of a rigid “digital divide” between blacks and whites that rendered invisible significant black online participation and technology development.¹⁹ Women of color have since transformed social media networks like Twitter into powerful platforms for cultural commentary and activism, leading *Salon* writer Feminista Jones to term Twitter “the underground railroad of activism” due to the influence of “Black Twitter” on the service.²⁰ Transgender people have also used the Internet to build community, share resources, and do “identity work,” creating and sustaining a range of queer gender identities unknown before the 1990s, including nonbinary genders and pronouns.²¹ The contemporary celebrity of transgender women of color like Janet Mock and Laverne Cox stands at the intersection of these strains of activism, showing the power of marginalized communities advance as well as appropriate popular science and technology and their uses. Thus for many even though the prevailing stereotype of a technophile continues to be a white cisgender²² straight male, studying the intersection of

¹⁹ Everett. *Digital Diaspora*.

²⁰ Feminista Jones, “Is Twitter the Underground Railroad of Activism?” *Salon* 17 July 2013, Accessed 17 June 2015, salon.com/2013/07/17/how_twitter_fuels_black_activism/.

²¹ See Eve Shapiro, *Gender Circuits: Bodies and Identities in a Technological Age* (New York: Routledge, 2010).

²² “It’s not complicated: Cisgender is the opposite of transgender.” See Sunnive Brydum, “The True Meaning of the Word ‘Cisgender,’” *Advocate* 31 July 2015, advocate.com/transgender/2015/07/31/true-meaning-word-cisgender.

technology and culture means studying multiple online cultures, as well as the ways in which online discourse has shifted the terms of cultural interaction and cultural identity.

The 1990s cultural studies focus on everyday life, and sexuality (particularly for this study) is increasingly relevant to understanding today's popular technoculture, as contemporary sexuality has become mediated by technologies like online dating and social networking profiles, smart phone apps, and video chat services. US broadcast media industries including radio and television have traditionally avoided explicit sexual content as part of their government mandate to serve the "public interest," while Hollywood cinema has self-regulated to avoid such government intervention, also restricting explicit sexual content. However, digital media have brought unprecedented access to explicit sexual material to the domestic sphere. Jane Juffer calls the moment of availability of online pornography in the home in the 1990s part of the simultaneous "domestication" and "commodification" of pornography.²³ Domesticated pornographic commodities include not only hard core films and videos brought into the home by video, cable, or online distribution, but written erotica, lingerie catalogs, and sex-positive sex education.

Since the 1990s, mediated sexuality has also blurred the line between public and the private, the domestic and the public sphere. Mark Hansen argued in 2006 that contrary to the perception of *virtual reality* as a distinct experience from dominant perception or "physical reality," "all reality is mixed reality": our perception of reality is continuously affected by the

²³ Jane Juffer, *At Home with Pornography: Women, Sex, and Everyday Life* (New York: NYU Press, 1999), 24–31.

digital and analog tools we use.²⁴ Similarly, as “personal” devices including laptops, mobile phones, and tablets interpenetrate our public lives, and as social networks of “blogging” for “friends” like Facebook, Twitter, and Instagram become valuable measures of our professional influence, the division of the private sphere from labor diminishes, leading to a mixed reality of personal life and professional labor Richard Florida argues is endemic to the “rise of the creative class” in American society of the new millennium.²⁵

The methodologies I employ for the study of haptic media can thus be seen as part of a contemporary interdisciplinary cultural studies: discourse analysis, archival research, interviews, site studies, and political and cultural analysis. Additionally, *Haptic Media* is inspired by the interdisciplinarity of contemporary digital humanities research, with a focus on research methods that center social and cultural questions, and combine popular voices with academic theory.

Structure of the Project

The first chapter of this project proposes a theory of haptic media that places the sense of touch at the center of contemporary media analysis, with counterhaptic challenges to this center. The following chapters focus on cutaneous, immersive, and affective touch modes at their most controversial, where different haptic and counter-haptic modes of understanding around the place of touch in media are in full view. The conclusion to this project explores the concept of counterhaptics in more detail, and points to directions for the future study of touch and new media.

²⁴ Mark B. N. Hansen, *Bodies in Code: Interfaces With Digital Media* (New York: Routledge, 2006), 1–22.

²⁵ Richard Florida, *The Rise of the Creative Class, Revisited* (New York: Basic Books, 2012).

Videogames are perhaps the most openly cutaneous industry I discuss. However, their use of affective touch, particularly “empathy” with player characters, has been much more controversial than this function has been in other media industries. 1990s and early 00s moral panic about videogames and representations of violence followed similar panics about films, comic books and television from the early through middle 20th century. For games, concerns about particular forms of touch and interactivity dominated this discussion: would controlling a “player character” in a virtual world cause players to feel so much empathy that they would go on to enact videogame violence in their communities? Chapter 2 discusses the discourses of misplaced empathy and beneficial empathy in games culture through the idea of the haptic text: how are certain texts understood to produce affect and empathy, while others are not? Since 2012, the use of empathy in games has experienced a cultural rehabilitation, as affective touch has been attributed not to first-person shooting games or “sandbox” games depicting street violence such as the *Grand Theft Auto* series, but to “small” *avant garde* or artistic games depicting personal experiences. In particular, a set of small queer games designed by transgender women, including *Dys4ia* (Anna Anthropy, 2012), *Mainichi* (Mattie Brice, 2012), and *Lim* (Merritt Kopas, 2012), have been variously distinguished from the mainstream of games production with terms emphasizing their use of affect like “empathy games,” “personal games,” and “games you can’t win.” However, queer *avant garde* game designers have resisted these affective and Othering terms used to describe their games, in particular talking back to the discourse of “empathy” through game design and games criticism. Though feminist theorists have amply demonstrated how video art depicting queer and other marginalized experience used affect and empathy to challenge dominant media regimes in the 1990s and early 00s. Indeed, this challenge to empathy on the Internet is

precisely a mode of a counter-haptic response because it exposes the ways in which haptic media may have ceased to be radical and have instead become the dominant power structure of Internet culture.

Chapter 3 shows how cutaneous touch has been associated with excess in Hollywood cinema, as opposed to the dominant haptic technology of authorship, as a way of organizing audience affect. As the theory of “expanded cinema”²⁶—including enlarged screens, stereo sound, early 3-D, and immersive theater performances—rose to popularity in the 1950s and 60s, William Castle’s *The Tingler* (1959), and its vibrating seats designed with Dona Holloway, used touch to take this trajectory to its logical conclusion. By vibrating audiences’ seats in a cathartic “scream break” existing somewhere between the film narrative and the world outside the theatre, Castle and Holloway’s project argued that touch would disrupt narrative immersion. Meanwhile, the film’s narrative lampooned the idea that technology could discover and exploit the source of human fear through scientific means, as opposed to the narrative form of the “spine-tingler,” to which the eponymous *Tingler* (the scientists’ discovery) was opposed. This chapter places the cult classic film *Tingler* within a long historical trajectory of cinema’s counterhaptic responses to the intrusion of haptic media on its way to dominance.

Chapter 4 discusses the persistent fantasy of teledildonics to examine the stakes of touch in the field of virtual reality. Because of continuing patent litigation and creators’ anxieties about being associated with the term, “teledildonics” remains an industry caught between fantasy and implementation. The word originated as what we would now call an Internet meme, and it has remained extremely “spreadable”: many fans of science and

²⁶ See Gene Youngblood, *Expanded Cinema* (New York: E. P. Dutton & Co., 1970).

technology have heard teledildonics will be the future of digital media and pornography, though fewer have tried a teledildonic product. It is tempting to dismiss the field as vaporware, as successive generations of sex hackers and journalists have done. However, successive generations of entrepreneurs have continued to develop in the field, believing it to be a potential goldmine for technology developers and adult content production. While virtual reality has generally taken audiovisual forms, teledildonics hope to bring cutaneous and/or kinesthetic touch to virtual worlds by the introduction of specialty peripherals. Because they represent the future of touch, teledildonics have been a site for struggle around what virtual reality should feel like, and whose bodies should be included in this virtual future.

Counterhaptics exist as a fluid set of challenges to haptic media throughout this project. How have haptic media designers themselves critiqued the terms of haptic media? How can these counterhaptic critiques help us understand the mainstream assumptions that color the discussion of touch in media? What alternate ways of imagining haptic media could there be? What are counterhaptics, and why are they necessary? *Haptic Media* answers some of these questions and opens others. Existing in nearly every media industry from videogames, to cinema, to mobile phones, to consumer electronics, to adult novelty commodities, haptic media and associated technologies touch the user's body and emotions with direct and instantaneous stimulation. Haptic media are *cutaneous*, touching and vibrating the surface of the skin; *kinesthetic*, enhancing the sensation of motion in traditional audiovisual media through movement or virtual reality; *affective*, touching the body by manipulating a user's emotions consensually or non-consensually; *immersive*, surrounding the body in a virtual world or physical built environment; and *measurement-based*,

quantifying the user's body and shaping their behavior. Fictional accounts of haptic media are also important, as science fiction imaginaries of the future of touch in the media industries exist in a co-constitutive relationship with technological innovation.

Chapter 1. The Theory of Haptic Media

Sitting in a darkened theater, or huddled under the covers with a smartphone, film viewers feel a range of tactile, haptic, and embodied sensations, pleasant, thrilling, involuntary, interesting, unpleasant, annoying, and disgusting. This chapter enumerates multiple ways the sense of touch may be experienced in cinema: the skin stimulation of vibrating videogame controllers, the measurement technologies of wearables and motion gaming, the affective shocks of the body genre, the kinesthetic and immersive sensations of widescreen cinema and virtual reality, and more. Film theory models of haptic and tactile cinema point to the central place of touch in contemporary media production and consumption, be it kinesthetic, embodied, affective, haptic, or tactile.

With all these different ways media and technology can be haptic, it may be tempting to isolate one element of touch and designate this as the truly touch-like or haptic. Instead, this project takes all these definitions of touch, organizing them under the larger theory of *haptic media*, which conceptualizes many diverse touch sensations in media spectatorship and aesthetics under the rubric of touch. This chapter expands the theory of haptic media by providing a range of definitions for the sense of touch in contemporary media culture, and explaining how centralizing these modes in media analysis is a useful way to expand film and new media theory and analysis.

What is the Sense of Touch?

The sense of touch is difficult to define because it engages our entire body. We often associate sight, smell, taste, and hearing with one specific organ and the way our brain

interprets its signals. Vision is associated with the eye's messages to the brain, as hearing describes those of the ear, taste those of the mouth and tongue, and smell those of the nose. However, touch affects multiple organs of the body, from the skin, to the balance system of the inner ear, to the internal and external organs. The eye or ear, nose or tongue may experience touch as well as taking in sight, sound, smell, and taste signals. We may even conceptualize vision as an operation of light *touching the eye*, sound as a *vibration within the ear*, smell as *particles touching the nose and throat*, and taste as *food touching the tongue*. Though this project is often concerned with cutaneous skin sensation, to study media as haptic is not simply to isolate the experiences of the skin, the balance system, or the internal organs at the cinema or when playing a videogame. The study of haptic media is also a shift in focus away from understanding cinema as purely an optical system like the inside of a camera, the signal of light hitting the eye, and the brain's interpretation of these visual sensations. Instead even the operation of sight can be viewed as a form of touch that exists in contrast to cutaneous, kinesthetic, and affective touch.

The *cutaneous* is a term borrowed from perceptual psychology to indicate touch sensations on the surface of the skin, as opposed to the kinesthetic and proprioceptive touch sensations felt throughout the body.²⁷ Cutaneous touch applies to the surface of the skin, the largest organ in the human body. We may feel vibration or pressure at the surface of the skin, the sensation of touching or the sensation of being touched. These senses of touching and being touched may be *reversible*, as Maurice Merleau-Ponty describes the sensation of

²⁷ See Yvette Hatwell, "Introduction," 2.

touching the right hand with the left: the left may be the one touching or the one being touched, but the sensation alternates between the right and the left hand.²⁸

Kinesthetic and *proprioceptive* modes of touch are often conceptualized as effects of the audiovisual (the seen and the heard). These senses engage the body through the balance system of the inner ear, and through the limited field of vision provided by screens, particularly those in dark rooms or shrouded within a headset. Blockbuster films and videogames are known to produce *kinesthetic* sensations of moving while the spectator/viewer/user's body remains in place, as when a gamer lurches to the side to facilitate a difficult jump or dodge an incoming missile, or a spectator in an IMAX theater feels their stomach jump when the camera soars above a canyon.²⁹ Technologies like large and/or curved screens, stadium seating, surround sound, and 3-D can be used to enhance the kinesthetic effects of a primarily audiovisual media experience, engaging the sense of touch without using haptic force feedback.³⁰ Virtual reality viewing devices apparatus such as Samsung's *Gear VR* (2015) and Google *Cardboard* (2014) also make use of this kinesthetic effect, limiting users' field of vision to the dimensions of a smartphone screen in order to help them feel *immersed* in a vast virtual space. The immersive potential of such virtual reality may be viewed as ironic, as bodily immobility may enhance the bodily sensations

²⁸ Maurice Merleau-Ponty, *The Visible and the Invisible*, ed. Claude Lefort, trans. Alphonso Lingis (Evanston, IL: Northwestern University Press, 1968), 147–48, cited in Jennifer Barker, *The Tactile Eye*, 19.

²⁹ See Rudolf Arnheim, *Film as Art* (Berkeley: University of California Press, 1957), 30–34. On kinesthetic sensation in video games, see Melanie Swalwell, "Movement and Kinaesthetic Responsiveness: A Neglected Pleasure," in *The Pleasures of Computer Games: Essays on Cultural History, Theory and Aesthetics*, Melanie Swalwell and Jason Wilson, eds. (Jefferson, NC: McFarland, 2008), 72–93.

³⁰ See John Belton, *Widescreen Cinema* (Cambridge, MA: Harvard University Press, 1992).

provided by screens’ “illusory” appeal to kinesthetic and proprioceptive senses.³¹ However, the use of computer peripherals that users touch and move can also be understood as “imprisoning” the body. Howard Rheingold’s 1990s writing about virtual reality demonstrates its bodily cumbersomeness, a fact Lev Manovich characterizes (2001) as a similar virtual imprisonment: “like today’s computer mouse, the body was tied to the computer . . . the body was reduced to nothing less—and nothing more—than a giant mouse, or more precisely, a giant joystick.”³² Both the mouse (ubiquitous computing), and the virtual reality headset (immersion) may be understood as ways of creating virtual touch and interactivity while keeping the human body relatively immobilized. Transmedia franchises also seek to immerse the bodies and minds of fans with artifacts like posters, action figures, and the texts themselves in physical or digital form.³³ The proliferation of theme parks, trade shows, and fan expositions also extends the immersive potential of a franchise or industry.³⁴

Haptic media can even *measure* the body’s functionality, as in motion-capture gaming systems, and fitness trackers from FitBit and Misfit Shine to the Apple Watch.³⁵

³¹ See Ann Friedberg’s discussion of Baudry in *Window Shopping: Cinema and the Postmodern* (Berkeley: University of California Press, 1992), 28, 134, cited in Lev Manovich, *The Language of New Media* (Cambridge, MA: MIT Press, 2001), 107–10.

³² Manovich, *The Language of New Media*, 110.

³³ See Jonathan Gray, *Show Sold Separately: Promos, Spoilers, and other Media Paratexts* (New York: NYU Press, 2010).

³⁴ On trade shows as media sites and media texts see for example John Thornton Caldwell, *Production Culture: Industrial Reflexivity and Critical Practice in Film and Television* (Durham, NC: Duke University Press, 2008); and Amanda D. Lotz, *The Television Will Be Revolutionized* (New York: NYU Press, 2007).

³⁵ On motion gaming and bodily measurement, see David Parisi, “Game Interfaces as Bodily Techniques,” in *Handbook of Research on Effective Electronic Gaming in Education*, Richard E. Ferdig, ed. (Hershey, PA: IGI Global, 2008), 111–26.

Most early histories of the cinema include bodily measurement in the form of the physiological motion studies of Etienne-Jules Marey and Eadweard Muybridge, which represented human and animal movement through a series of discrete photographs. In *Screening the Body: Tracing Medicine's Visual Culture*, Lisa Cartwright argues these early examples of cinema as a form of scientific inquiry are not merely a pre-history of cinema's uses in popular culture, but the beginning of a larger history of "cinematic tracking of the human body [as] a form of medical surveillance and social control."³⁶ Cartwright writes: "the long history of bodily analysis in medicine and science is critically tied to the history of the development of the cinema as a popular cultural institution and technological apparatus."³⁷ The relationship between the body and cinema in Cartwright's work goes beyond optical surveillance of the body, as she links cinema to a history of invasive surgical investigation, designed to both observe and alter the body's function. In this history of experimental biology, the sense of touch appears as a particularly invasive and deadly mode of observation, that may destroy its object. Discussing physiologist Claude Bernard's vivisections, dissections of living subjects that he called "experiments of destruction," Cartwright writes, "Bernard considers touch capable of moving beyond noninvasive observation." While traditional doctors used touch as an exterior mode of observation and investigation, through vivisection, "Touching is no longer a neutral intermediary between physician/experimenter and body/object; touch constitutes 'action on the body' insofar as it

³⁶ Lisa Cartwright, *Screening the Body: Tracing Medicine's Visual Culture* (Minneapolis: University of Minnesota Press, 1995), 4.

³⁷ Cartwright, *Screening the Body*, 3.

alters the object it investigates.”³⁸ While cinema did not physically dissect the human body, Cartwright argues that it did alter human social behavior. Alongside electricity, cinema was “a technique for disciplining populations and bodies . . . grounded in an ideological insistence on science’s ability not to destroy but to enliven its bodies and subjects through technological means.”³⁹ The use of accelerometers in smart phones and watches is the most obvious contemporary example of media technology controlling and disciplining the body, as these motion trackers are often advertised for their health applications.

Like cinema, motion gaming and wearable fitness trackers not only enliven the body but discipline it into certain forms of bodily movement, even turning the body itself into a computer peripheral, as Manovich described. Accelerometers are used to measure the movement of a device in wearable fitness trackers; thus the body of the fitness tracker is measured in order to make an assumption about the body of the user. Though they make the body into a game controller, scanning processes like those used in PlayStation *Move* (2010) and Microsoft *Kinect* (2010) seem a perfect example of optical technologies, measuring light reflected from the user’s body in the manner of a camera. However, David Parisi’s innovative work on motion gaming interfaces and specialty game controllers—from the *Dance Dance Revolution* (Konami, 1998–) and *Guitar Hero* (Harmonix et. al., 2005–) series to Nintendo *Wii*—frames these as examples of haptic media and technology. Parisi argues these interfaces can be understood through Marcel Mauss’s (1973) concept of “bodily techniques,” because controllers encourage the body to move in certain ways. Controllers

³⁸ Cartwright, *Screening the Body*, 28.

³⁹ Cartwright, *Screening the Body*, 29.

that simulate dance, guitar playing, or sports may also be evaluated in terms of their “bodily realism,” the realistic feeling of performing a virtual action.⁴⁰

Spend too long in such screen disciplines, and you may become distracted by the sense of *interoception*, the element of touch associated with one’s internal organs. The growl of the stomach or a cramp in the lower back may indicate it is time to get up from hours of playing an immersive “open world” RPG like *Dragon Age: Inquisition* (BioWare, 2014), just as finger and wrist tightness could end a session of *Guitar Hero* (Harmonix, 2005).

Interoception is also a feature of the “body genre”: disgust seems to originate in the stomach, thrills in the heart, laughter and sexual arousal in the upper and lower torso. However interoception may also come about due to *empathy* with events on the screen: gory imagery may produce sympathetic twinges, and an extreme close-up of a hand may be perceived more by our fingers than by our eyes, as Vivian Sobchack vividly describes in a reading of the opening scene of *The Piano* (dir. Jane Campion, 1993).⁴¹ When we describe a scene as “gut-wrenching,” is this an interoceptive sense of the gut feeling pain, or an empathetic moment where bodily sensation mimics the feelings of characters on screen?

The example of interoception demonstrates how senses may be intertwined, as in *synesthesia*. Whether through mental or physical differences or drug experiences, people have described tasting, smelling, or hearing color, to name one example. Certain styles of art work to enhance this type of synesthetic interaction between the senses, even for viewers who do not experience this in their daily life. The experimental animation of Oskar

⁴⁰ David Parisi. “Game Interfaces as Bodily Techniques.”

⁴¹ Vivian Sobchack, “What my Fingers Knew: The Cinesthetic Subject, or Vision in the Flesh,” in *Carnal Thoughts: Embodiment in Moving Image Culture* (Berkeley: University of California Press, 2004), 53–84.

Fischinger (1900-1967) used abstract shapes and evocative colors to illustrate and comment upon pieces of instrumental music. His *Komposition in Blau* (1935), a stop motion animation made with red and blue cut paper, plays with the visual aspects of music, and the rhythmic and melodic aspects of color and painting. Synesthetic art like this plays with the contrast between two senses, shifting our expectations of what vision and sound can do and demonstrating their synergy together. In rhythmic animation, we experience the potential of sound film as truly *audiovisual*, with the audio and visual stimuli acting as separate senses that work together.

Synesthetic art benefits from the importance of *affect* to media consumption. Affective haptics may be explicitly *consensual*, when genre expectations or other content clues allow media users to decide whether to undergo certain affective manipulations, or *non-consensual*, when media producers attempt to shock their audience unexpectedly. Carol Clover, Linda Williams, and Steven Shaviro have all discussed the power of certain popular genres, like melodrama, horror, and pornography, to affect the viewer's body.⁴² Genre is a powerful technology for organizing consumers' affective expectations, contextualizing media in terms of the sensations they attempt to provide. Online culture is highly concerned with the affective power of decontextualized media, however, as hyperlinking makes it possible to click on something seemingly innocuous and be faced with a sudden and extreme image of violence or unfamiliar sexuality. Some hypertext authors attempt to ensure consensual affective touch in their work by employing *content warnings* (sometimes called *trigger*

⁴² See Carol Clover, *Men, Women, and Chain Saws: Gender in the Modern Horror Film* (Princeton, NJ: Princeton University Press, 1992); Linda Williams, "Film Bodies: Gender, Genre, and Excess," *Film Quarterly* 44, no. 4 (Summer 1991), 2-13; and Steven Shaviro. *The Cinematic Body* (Minneapolis: University of Minnesota Press, 1993).

warnings), while others deliberately aim to bully, prank, or *troll* their readers through sending them unexpected material.⁴³

Affective shocks may destroy the very sense of embodied disembodiment that makes kinesthesia and immersion effective in other contexts. Yet for some viewers, the body with its particular experiences of marginalization, oppression, and trauma becomes an important interpretive tool for cinema and other media. Audience members who contend with the daily oppression and marginalization of their bodies such as people of color, and people with physical disabilities, keenly understand how the bodies of media audiences do not simply disappear inside a darkened theater or in front of a computer screen.⁴⁴ Oppositional reading practices as described by Stuart Hall and bell hooks are both styles of political consciousness and *embodied and affective strategies* for consuming media.⁴⁵ Certain uses of affect in film and video may produce a sense of *haptic visuality*, engaging the sense of touch through extreme close-ups and appeals to sensory memory.⁴⁶ This play of distance and closeness

⁴³ The homophobic “shock” meme “goatse” and the musical “bait and switch” video “Rickroll” are two examples of non-consensual hyperlinking practices. “Goatse: Part of a Series on Shock Sites,” *Know Your Meme* 26 July 2009, accessed 5 June 2015, knowyourmeme.com/memes/goatse; “Rickroll: Part of a Series on Bait and Switch Videos,” *Know Your Meme* 10 December 2008, accessed 5 June 2015, knowyourmeme.com/memes/rickroll.

⁴⁴ bell hooks, “The Oppositional Gaze: Black Female Spectators,” in *Black Looks: Race and Representation* (Boston: South End Press, 1992); Vivian Sobchack, *Carnal Thoughts: Embodiment and Moving Image Culture* (Berkeley: University of California Press, 2004).

⁴⁵ hooks, “The Oppositional Gaze”; Stuart Hall, “Encoding/Decoding,” in *Media and Cultural Studies Keywords*, Meenakshi Kiki Durham and Douglas M. Kellner, eds. (Malden, MA: Blackwell Publishing, 2006).

⁴⁶ See Laura U. Marks, *The Skin of the Film: Intercultural Cinema, Embodiment, and the Senses* (Durham, NC: Duke University Press, 2000); Marks, *Touch: Sensuous Theory and Multisensory Media* (Minneapolis: University of Minnesota Press, 2002).

makes not just the body of the viewer, but *the body of the film* palpable, as Laura U. Marks's analysis of "the skin of the film" emphasizes.⁴⁷ Spectatorship may even be analyzed as a complex and reversible interaction between the body of the viewer and that of the film, as Jennifer Barker demonstrates.⁴⁸ To conceive of film as a primarily tactile system, Barker writes, is one possible style or mode of film analysis and being in the world.⁴⁹

The study of haptic media does not set out to separate the senses against each other. Instead, it examines the contours of the haptic itself as a set of haptic styles that may be preferred or marginalized. This study does not distinguish: (a) the haptic vs. the "visual medium"; (b) the haptic vs. or "as" the auditory; (c) the haptic vs. the optical; (d) the embodied vs. the narrative or dramatic; (e) haptic technology vs. optical or sound recording technologies; or (e) the immersive vs. the non-immersive or ubiquitous (in which one is considered more "haptic" than the other). Instead, the distinction between "haptic" and "counterhaptic" is one of *haptic vs. haptic*, in which all "senses" experienced through media are versions of the sense of touch in one way or another.

Why Haptic Media?

To view all media as haptic is not simply an experiment. It is a reflection of contemporary and historical media and political discourse. Postindustrial capitalism's demands on worker affect include the affective labor of the service-oriented economy, the demand to identify (or appear to identify) with the company and its values, as in startup culture, and appeals to

⁴⁷ Marks, *The Skin of the Film*.

⁴⁸ Barker, *The Tactile Eye*, 2–13.

⁴⁹ Barker, *The Tactile Eye*, 2.

positive affects like creativity and inventiveness to extract low-wage labor.⁵⁰ Sianne Ngai explains contemporary culture through three aesthetics that are also labor categories, affects, and styles of embodiment: the *zany* describes the frenetic pace of tech and service workers, the *cute* aestheticizes the weakness and vulnerability of affective and body laborers as well as subjects of trauma, while the *interesting* aestheticizes the affect of knowledge work, as in the increasingly precarious academic labor market.⁵¹

The rise of *affect theory* and the particular utility of affect in expanding feminist, queer, and critical race theories demonstrates the importance of “feelings” to the discussion of neoliberal power in contemporary postindustrial societies. How may a national government like that of Britain be imagined as having a “soft touch?” Sara Ahmed asks to frame her discussion of affect as a form of cultural politics.⁵² The affective appeal to identify with the nation as a body to be touched and which touches softly justifies a security politics to “protect” this perceived vulnerability: “the metaphor of ‘soft touch’ suggests that the nation’s borders and defenses are like skin; they are soft, weak, porous and easily shaped or even bruised by the proximity of others.”⁵³ Appeals to affect and empathy, closeness and softness can thus be used to justify xenophobic violence and isolation. Affect and empathy may also be used in media toward social justice ends: news stories and video of police brutality against black men and women in the United States has added a gut sense of urgency

⁵⁰ See Angela McRobbie, *Be Creative: Making a Living in the New Culture Industries* (Malden, MA: Polity Press, 2015).

⁵¹ Sianne Ngai, *Our Aesthetic Categories: Zany, Cute, Interesting* (Cambridge, MA: Harvard University Press, 2012).

⁵² Sara Ahmed, *The Cultural Politics of Emotion* (New York: Routledge, 2004), 1–4.

⁵³ Ahmed, *The Cultural Politics of Emotion*, 2.

to the statement and movement “black lives matter,” particularly for non-black activists whose sense of this oppression may have been more distant. However, the continuing circulation of videos of violence has not always led to justice, as when a viral video of NYPD officer Daniel Pantaleo placing Eric Garner in a deadly chokehold failed to result in an indictment.⁵⁴ This cycle of circulating video may also contribute to trauma and burnout for overburdened activists, themselves engaging in considerable affective labor.⁵⁵

Videos of police brutality and news reporting and activism on Twitter are not the only uses of new technology to commemorate victims and solicit a haptic relationship with their audience. In 2015, Usher released an interactive music video for “Chains” (ft. Nas and Bibi Bourelly) on the streaming service TIDAL. “While racial injustice keeps killing, society keeps looking away,” the video states in white text on a black background. “To listen to Usher’s song ‘Chains,’ look in the eyes of unarmed victims.”⁵⁶ Viewers are asked to activate their device’s front-facing camera, allowing the interface to scan their face for eye contact with black-and-white photographs of Trayvon Martin, Rekia Boyd, Caesar Cruz, Ramarley Graham, Kendrick Johnson, Marlon Brown, Andrew Joseph, and Sean Bell. Clicking away from the browser window or turning one’s head results in the simple message “Don’t Look Away.” In a media environment where audiences are usually distracted and multitasking, this

⁵⁴ Christopher Mathias and Lilly Workneh, “Grand Jury Declines to Indict NYPD Officer in Chokehold Death of Eric Garner,” *Huffington Post* 12 December 2014, huffingtonpost.com/2014/12/03/eric-garner_n_6263656.html.

⁵⁵ See for example Yasmine Mathurin, “Activist Burnout and Self-Care in Toronto’s Black Lives Matter Movement,” *Ryersonian* 29 September 2015, ryersonian.ca/activism-burnout-and-self-care-in-torontos-black-lives-matter-movement/.

⁵⁶ “Chains,” Usher ft. Nas and Bibi Bourelly, interactive music video, TIDAL, chains.tidal.com/.

simple act of demanding visual attention, so common in long-duration art film of the mid-20th century, produces a strong affective and empathetic sensation in under five minutes.

Social media ask for and employ data on users' emotional and embodied responses to an increasing degree, a phenomenon also sometimes attributed to empathy, as a principle of technology design. Social media ask for and employ data on users' emotional and embodied responses to an increasing degree, a phenomenon also sometimes attributed to empathy, as a principle of technology design. "Emotionally durable design," as described by Jonathan Chapman, "explores the idea of creating a deeper, more sustainable bond between people and their material things." This deep bond between people and smart phones has some utopian aims. As Chapman argues, "the ultimate aim is to reduce the consumption and waste of resources by increasing the durability of relationships between consumers and products."⁵⁷ Facebook's interest in empathy as a design principle may have been the inspiration for their recent expansion of the "Like" button into include a range of different emotional responses to newsfeed items: "Love," "Haha," "Wow," "Sad," and "Angry." Describing this new interface in its beginning stages, CEO Mark Zuckerberg argued Facebook would respond to demands for a "dislike" feature by building an "empathy button," "a way to show empathy for victims of tragedies and other things that are inappropriate to Like."⁵⁸

Media employing haptic technology are also entering every facet of media production and consumption. Some technologies—like the vibrating wearable metronome Soundbrenner

⁵⁷ Jonathan Chapman, *Emotionally Durable Design: Objects, Experiences, and Empathy*, 2nd edition (New York: Routledge, 2015), 21.

⁵⁸ Josh Constine, "Facebook Is Building An Empathy Button, Not 'Dislike.' Here's How it Could Work," *TechCrunch* 15 September 2015, techcrunch.com/2015/09/15/the-sorry-button/.

Pulse which earned over \$100,000 in a one-month crowdfunding campaign in 2015— foreground their haptic properties to make claims for their futuristic potential, while others are haptic in ways many users do not think about.⁵⁹ Keyboards, touchpads, touchscreens, and non-vibrating videogame controllers are all touchable interfaces in which the sensation of touch ideally diminishes as users become proficient in the gestural language of the interface. Anna Everett's *click theory* discusses how these touch-based interfaces provide the illusion of limitless possibility or what Everett calls “sensory plenitude,” while being limited by the human body's capacity and proficiency.⁶⁰ Most contemporary haptic media are haptic in multiple ways, some more noticeable and others less: the Apple iPhone 6 includes a touchscreen, vibration, and a built-in accelerometer that can be used as a fitness tracker, as well as a biometric fingerprint reader, though vibrating notifications are the most noticeable haptic feature of the device. These uses of haptic technology and other new media haptics are not within the scope of Marks's model, but are part of the mainstream of commercial media industries. However, as Marks's theory of haptic visuality argues, oppositional strategies to challenge commercial media's claims to haptic engagement and immersion can themselves be haptic, if in new ways.

Corporate and technological uses of affect and empathy are very different from previous uses of affect in the term haptic in film and media studies, in particular Laura U. Marks's description of haptic visuality, and Jennifer Barker's description of film

⁵⁹ “Soundbrenner Pulse: Wearable Device for Musicians.” *Indiegogo* 30 May 2015. Web. Accessed June 5 2015. <https://www.indiegogo.com/projects/soundbrenner-pulse-wearable-device-for-musicians>.

⁶⁰ Anna Everett, “Digitextuality and Click Theory: Theses on Convergence Media in the Digital Age,” in *New Media: Theories of Practices of Digitextuality*, Anna Everett and John Caldwell, eds. (New York: Routledge, 2003) 3–28.

spectatorship as tactile. These accounts expand our understanding of the haptic and tactile relationships viewers have with particularly artistic uses of film and video, demonstrating how film theorists may challenge and expand the concept of film as primarily visual or optical. In film theory, the haptic or tactile and the optical may appear as two poles of an uncertain and shifting binary, where optical visibility expresses the dominant power relations of Hollywood, or a limited conception of film's potential, while the haptic and the tactile challenge the optical. This project owes its existence to a great many feminist film theorists cited above, but in particular to Laura Marks and Jennifer Barker's concepts of haptic and tactile visibility in cinema. The study of haptic media aims to respectfully expand the work of these great theorists by marginalizing the consideration of the optical in favor of a shifting relationship between different modes of the haptic (haptic vs. haptic), or haptic and counterhaptic.

Feminist Film Theory and Haptic Media

Each of the different haptic modes discussed above may enforce cultural norms and social hierarchies in certain contexts and subvert or challenge artistic form and social power in others. Cutaneous touch appears threatening in film culture, which centers immersive and affective haptic modes. Similarly, in videogames, some forms of affective touch appear subversive in contrast to more dominant immersive and cutaneous modes. Finally, immersion, a haptic mode that has long been imagined as the natural future of all media from film to television to videogames, appears threatening when understood as cutaneously sexual, at the intersection of the adult and technology industries represented by teledildonics. In contrast, "couples" adult novelty markets portray online sexual communication as primarily

affective and measurement-based. In order to demonstrate the concept of haptic and counterhaptic modes of touch in tension, this section briefly reads two key feminist film theory texts. Where does “haptic media” fit within Laura Marks’s discussion of haptic and optical visibility? Moreover, if all media can be understood as haptic, could even the optical be haptic? The classic theory of the gaze discussed in Laura Mulvey’s “Visual Pleasure and Narrative Cinema” may also be conceived of as a discussion of Hollywood’s structures of affect.

In *The Skin of the Film: Intercultural Cinema, Embodiment, and the Senses*, and *Touch: Sensuous Theory and Multisensory Media*, Marks points to a style of film and video art whose intimate images, often abstracted by electronic formats, produce a touch-like intersubjectivity with viewers, along with an eroticism divorced from clear images of sexual activity. Marks argues that “cinema can appeal to senses that it cannot technically represent: the senses of touch, smell, and taste.”⁶¹ Videos such as Sadie Benning’s *It Wasn’t Love* (1992), made with the Fisher Price PixelVision toy camcorder (PXL-2000, 1987), allows “the eyes themselves [to] function as organs of touch.”⁶² In this way, the “small caressing gaze” of haptic visibility can be used as a “feminist visual strategy, an underground visual tradition.”⁶³ Haptic visibility suits feminist discourse because it opposes the aesthetics long associated with “optical visibility”: optical visibility allows viewer distance and the illusion of control, while haptic visibility invites closeness, eroticism, and “tests the viewer’s own sense

⁶¹ Marks, *The Skin of the Film*, 129.

⁶² Marks, *Touch*, 2.

⁶³ Marks, *Touch*, 6–7.

of separation between self and image.”⁶⁴ Touch, in Marks’s account, encompasses a range of sensations including synesthetic vision-touch interaction, affective identification with the image, embodied erotic response, and visual closeness (as in the extreme close-up). Haptic visuality is technological: as an argument about video art, it suggests that the shift from film to video did not remove tactility and warmth from the practice of manipulating and editing film. Instead, the video medium has become warm and tactile through its very electronic manipulability, an argument that explains the utility of video to feminist and queer artists.⁶⁵ Within the model of this project, haptic visuality could be understood as a counterhaptic response to the different haptic and immersive promises of optical visuality. Rather than promising penetration, depth, acceleration, and speed, modes of immersion and embodied sensation in the optical visual aesthetics of film, video art promised closeness, intimacy, texture, and erotic affective engagement.

Marks’s discussion of haptic visuality is not so much a discussion of direct touch as it is a description of how audiovisual media may represent or “appeal to” the sense of touch.⁶⁶ In a chapter titled “The Memory of Touch,” Marks first begins to develop the theory of haptic visuality as a description of how films and video about memory may encode touch through their audiovisual medium. “Cinema bears the marks of sense memories that do not find their way into audiovisual expression,” Marks writes.⁶⁷ Discussing a scene in *History and Memory* (dir. Rei Tajiri, 1991), in which the memory of the author’s mother is encoded

⁶⁴ Marks, *Touch*, 9.

⁶⁵ Marks, *Touch*, 9.

⁶⁶ Marks, *The Skin of the Film*, 129.

⁶⁷ Marks, *The Skin of the Film*, 129.

through moments of water running over hands and splashing onto the face, Marks argues that “the tactile memory is encoded audiovisually.”⁶⁸ This haptic function is in contrast to the mechanical reproduction of “multisensory imagery,” as in the mechanical reproduction of smell in Odorama—the scratch-n-sniff theater gimmick that accompanied *Polyester* (dir. John Waters, 1981).⁶⁹ Instead, Marks brings up haptic visibility less to redeem the haptic from erasure than to redeem the visual from being “blamed for as many evils as, at other times, capitalism and the weather have been.”⁷⁰ “My project here is not to condemn all vision as bent on mastery,” Marks writes, “but to open up visibility along the continua of the distant and the embodied, and the optical and the haptic.”⁷¹ The realm of optical visibility emerges in contrast to this definition of haptic visibility. Optical vision relies on distance, while haptic produces closeness; optical vision invites analysis and identification with characters while haptic images “encourage a bodily relationship between the viewer in the image. . . . a dynamic subjectivity between looker and image.”⁷² By taking the term haptic from art historian Aloïs Reigl, who began as a textile curator, Marks designates particular film aesthetics as related to “traditions of weaving, embroidery, decoration, and other domestic and women’s arts as a presence of tactile imagery that has long existed at the underside of the great works.”⁷³ Marks also associates the haptic with the early “cinema of attractions”

⁶⁸ Marks, *The Skin of the Film*, 130.

⁶⁹ Marks, *The Skin of the Film*, 131.

⁷⁰ Marks, *The Skin of the Film*, 131.

⁷¹ Marks, *The Skin of the Film*, 132.

⁷² Marks, *Touch*, 3.

⁷³ Marks, *Touch*, 6.

described by Tom Gunning, which emphasized bodily response to images rather than narrative identification with characters.⁷⁴ In short, haptic visuality encompasses embodied response, the “low” arts and crafts, the surface texture of images, the intersubjectivity of viewer and image, and the electronic manipulability of video and other new media. Optical visuality is associated with narrative identification, the “high” arts, the ability to plunge into depth (depth of field, deep focus cinematography), and the indexical realism attributed to celluloid and other process photography. In Marks’s argument, these are styles of visuality, not styles of touch. However, to expand Marks slightly, the optical and haptic may also be seen as affective and embodied styles. Expanding the haptic visual and the optical visual, could there be an “optical haptics” and “haptic haptics?”

The model of optical haptics exists within Marks’s schema in those “mechanical reproductions” of the the non-visual senses against which she defines the haptic, namely the Power Glove (Mattel, 1989), an accessory for the Nintendo Entertainment System, and Odorama, which recalled the 1950s and 60s theater gimmicks of William Castle. The Power Glove is explicitly an optical technology that simulates tactility, working through optical sensors placed around the television screen to determine the position of the controller in space. Just as Marks’s model of optical visuality encourages affective distance and narrative identification, Odorama’s use of a scratch and sniff card of distinct smells at certain points in the film’s narrative separates scents out for a distanced, logical perusal at the viewer’s discretion, as an accessory to narrative identification with, or disidentification from, the film. Secondly, haptic visuality exists in opposition to the optical visuality of mainstream pornography, a genre which is also haptic (yet optically haptic?). Marks argues some

⁷⁴ Marks, *Touch*, 7.

pornography is haptic, but that “pornography is often defined in terms of visibility—the inscription or confession of the orgasmic body—and an implied will to mastery by the viewer . . . A haptic pornography would invite a very different way of engaging with the image.”⁷⁵

Optical haptics could therefore be defined in terms of distancing touch, or scientific modes of reproducing touch at a distance, particularly through optical scanning technologies.

Finally, what are *haptic haptics*? Touch technologies that directly stimulate the skin and body in ways that disrupt the usual distance between viewer and media text are the most obvious candidate. The theater seat technology D-BOX, which uses “motion code” added after the film’s production by the company’s employees, has a tendency to produce haptic haptics by its choice of sensations to represent through seat movement and vibration. The D-BOX rendering of *Kingsman: The Secret Service* (dir. Matthew Vaughan, 2014) disrupts the seemingly intended irony of the film’s tone, because of its choice to represent violent actions through seat vibration and movement regardless of their target. While comedy-action films, like the *James Bond* series *Kingsman* draws from, often distance viewers from the film’s antagonists through narrative and editing, the sensory onslaught of the D-BOX seat may disrupt this affective distance. In the final sequence of the film, the villains’ heads explode in sequence, to the tune of Tchaikovsky’s “1912 Overture.” This scene of gleeful destruction is meant to distance viewers from these villains, yet the vibration of the D-BOX seat casts this gleeful violence as less comic than disturbing. D-BOX’s haptic haptics may be more tone-appropriate to the melodramatic *Mad Max Fury Road* (dir. George Miller, 2015), and not only because the seat technology is also used in car racing simulators. The film’s thrills rely on strong affective responses to both the main characters and their villainous pursuers.

⁷⁵ Marks, *Touch*, 15–16.

Console and arcade videogames have used haptic haptics for many years, from the early arcade “shockers,” which delivered a slight electric shock to the user, to more modern uses of vibration in seats, handles, and controllers, and even uses of short bursts of air blown into the player’s face. These instances of haptic technology are intended to bring users closer to the narrative of the game, an effect which may be described as “optical,” yet their effects are also used to disrupt gameplay. *Dark Escape 4D* (Bandai/Namco, 2012), an enclosed cabinet shooter depicting zombie apocalypse, measures the player’s heart rate as the controller and seats vibrate and bursts of air blow at the player’s face to simulate zombie vomit. Higher heart rates decrease the player’s score. Though the game as a system dares the players to numb themselves to its affective and tactile stimulation, the haptics in the game are undoubtedly haptic, designed to make the player feel their own embodiment, diminishing their ability to distinguish images, and losing track of the game’s narrative.

This expansion of the theory of haptic visibility (Fig. 1) is useful for understanding how visual modes and optical modes may both be haptic, just as haptic and optical modes may both be visual. Haptic visibility, optical haptics, and haptic haptics are all clearly within the rubric of the haptic. How might we understand even optical visibility through the theory of haptic media?

<p><i>Optical visibility</i> Distance, depth, analysis, narrative, “the gaze”</p>	<p><i>Haptic visibility</i> Closeness, texture, intersubjectivity, embodiment, erotics</p>
<p><i>Optical haptics</i> Simulation of touch through optical means, scientific measurement of the body, “bodily techniques”</p>	<p><i>Haptic haptics</i> Mechanical reproduction of touch through haptic technology, intersubjective embodiment through stimulation, jolts/shocks</p>

Figure 1: Expanded Theory of Haptic Visibility.

Haptic Pleasure and Narrative Cinema

Laura Mulvey's "Visual Pleasure and Narrative Cinema" is perhaps the most taught and best-known feminist film theory text.⁷⁶ It is also perhaps the most critiqued and re-imagined, even by the author herself.⁷⁷ Mulvey's early critical approach to gender and spectatorship has been influential even in the critiques it has inspired since the 1970s, from Linda Williams's discussion of the "body genre," which complicated both the visuality of spectatorship and the gender of the spectator, to scholars of video such as Laura Marks and Lucas Hilderbrand, who discussed in more detail how the sense of touch can be applied to spectatorship.⁷⁸ Television and videogame studies also have a long history of theorizing alternate modes of spectatorship. Rick Altman's discussion of television's use of sound suggests that loud noises such as swells in musical soundtracks or audience applause are designed to redirect distracted television viewers' eyes to the set,⁷⁹ and Lynn Spigel argues that housewives in the midst of doing housework—the original audience for television in the 1950s—were expected to be multitasking and watching between activities.⁸⁰ The historical concept of the television

⁷⁶ Laura Mulvey. "Visual Pleasure and Narrative Cinema." *Screen* 16, no. 3 (Autumn 1975): 6–18.

⁷⁷ Laura Mulvey, "Afterthoughts on 'Visual Pleasure and Narrative Cinema' Inspired by King Vidor's *Duel in the Sun* (1946)," in *Visual and Other Pleasures* (London: Palgrave Macmillan, 1989), 29–38.

⁷⁸ Linda Williams, "Film Bodies: Gender, Genre, and Excess"; Laura U. Marks, *The Skin of the Film: Intercultural Cinema, Embodiment, and the Senses*; Lucas Hilderbrand, *Inherent Vice: Bootleg Histories of Videotape and Copyright* (Durham, NC: Duke University Press, 2009).

⁷⁹ Rick Altman, "Television/Sound," in *Studies in Entertainment: Critical Approaches to Mass Culture*, Tania Modleski, ed. (Bloomington: Indiana University Press, 1986), 39–54.

⁸⁰ Lynn Spigel, *Make Room for TV: Television and the Family Ideal in Postwar America* (Chicago: University of Chicago Press, 1992).

viewer as distracted and multitasking works well with contemporary commonsense notions of media spectatorship. Amanda Lotz argues that in the “post-network era” of television in the mid 2000s and beyond, issues of viewer choice and control over the media they are watching are central, and Jennifer Gillan even goes so far as to call television viewers in an era when many viewers are watching on personal computers “viewers,” a compound of “viewers” and “users” that suggests a high level of interactivity for contemporary digital video watching.⁸¹ Videogame studies has grappled even more intensely with the issue of control and interactivity. Some early gaming scholars proposed utopian visions of endless user control, but Andrew Galloway argues that control in gaming goes both ways. While gamers may have some level of choice within the framework of a videogame, ultimately, the system of the game is designed to limit user choice. This issue of “protocol,” or the systems that delineate what in-game actions are possible, means that while users may attempt to play against the fabric of a game, interactivity and choice are always ultimately under the control of the game designers and the language of code.⁸²

Agreements with certain aspects of Mulvey’s article have also had far-reaching implications in feminist theory and practice. This has been particularly true in feminist discussions of pornography. Anti-pornography feminists, for example, have followed Mulvey’s arguments about the link between sadism and voyeurism in the work of Alfred Hitchcock to argue that representations of women’s bodies and sexualities in hard core and soft core pornography are inherently violent. These anti-pornography arguments have cast

⁸¹ Amanda Lotz, *The Television Will Be Revolutionized*; Jennifer Gillan, *Television and New Media: Must-Click TV* (New York: Routledge, 2010).

⁸² Galloway, *Gaming*.

porn performance alongside other forms of sex work as necessarily exploitative instances of women's victimization. However, this framework has proved disastrous for sex workers themselves. The coalition of radical feminists and moral reformers produced by this discourse of victimization often leads to legislation that casts sex workers as criminals. While sex work is physically labor-intensive, scholars such as Amalia Cabezas and Susan Dewey have examined sex work as affective labor, expanding the domain of sex work to include women who may only problematically identify with the label "sex worker," if at all.⁸³ Cabezas, whose work on all-inclusive resorts in Cuba and the Dominican Republic radically expands and questions the definition of sex work, writes that, because sex worker identity is primarily useful for labor organizing and consciousness-raising, "new forms of sex work, such as acting in pornographic films, erotic dancing, escort services, erotic massage, and telephone and cyber sex, can be subsumed under the category of sex work."⁸⁴ While readings of Mulvey in terms of objectification focus on the visual depiction of the female body, this proliferation of sex work as physical and affective labor across a variety of platforms both in-person and online demonstrates the importance of the haptic, rather than simply the visual, to contemporary labor markets.

As a prime example of the association psychoanalytic feminist theory created between looking relations and patriarchal power in film, "Visual Pleasure and Narrative Cinema" seems an appropriate site for the discussion of haptic media in primarily "optical"

⁸³ Amalia L. Cabezas, *Economies of Desire: Sex and Tourism in Cuba and the Dominican Republic* (Philadelphia: Temple University Press, 2009); Susan Dewey, *Neon Wasteland: On Love, Motherhood, and Sex in a Rural Rust Belt Town* (Berkeley: University of California Press, 2011).

⁸⁴ Cabezas, *Economies of Desire*, 18.

systems of representation. The idea of optical visibility as distant, investigative, and violent appears in Mulvey's analysis of a kind of sadistic *voyeurism* demonstrated in the films of Alfred Hitchcock (ex. *Rear Window* [1954] and *Vertigo* [1958]). Moreover, the idea of the man as bearer of and woman as object of the gaze, and therefore the argument that women are objectified in classical Hollywood cinema, is a key point many readers take from this famous piece.

Just as Marks's theory of haptic visibility is an argument about vision, Mulvey's argument about visual pleasure deals primarily with the place of psychoanalysis in feminism and in film theory. Because Mulvey's arguments about visual pleasure are oriented towards the psychological and emotional structures of heterosexuality and patriarchy as described in psychoanalytic theory, we might conceive of "Visual Pleasure" as an argument about film *affect*, as well as an argument about looking relations. In particular, this article takes up the issue of identification with screen characters and narratives, an element of optical visibility in Marks's model, explaining the affective and psychoanalytic structures associated with certain narrative forms and certain forms of identification.

"Visual Pleasure" is, first and foremost, an argument about psychoanalytic theory, and its utility for feminist film studies. Mulvey's opening section proposes the use of "psychoanalytic theory . . . as a political weapon," "to discover where and how the *fascination* of film is reinforced by pre-existing patterns of fascination already at work within the individual subject and the social formations that have molded him."⁸⁵ In psychoanalytic theory, the term "fascination" refers to the relationship of the hypnotized to a hypnotist.

⁸⁵ Laura Mulvey, "Visual Pleasure and Narrative Cinema," in *Film Theory and Criticism: Introductory Readings*, Leo Braudy and Marshall Cohen, eds. (New York: Oxford University Press, 1999), 833. Emphasis mine.

Raymond Bellour explains how this function can be applied to film audiences: “the subject of hypnosis gives up his/her look . . . The subject-spectator is submitted to a similar domination in that light form of hypnosis which belongs to the spectator: the hypnosis of cinema.”⁸⁶ This model of spectatorship as fascination explicitly links vision to embodiment. The subject of hypnosis gives up their gaze to be fixed in place by the gaze of the hypnotist, and also gives some control over their body and emotions to the hypnotist’s suggestion. Modeling spectatorship as hypnosis therefore implies that looking at cinema is to relinquish one’s visual power to the *gaze of cinema*, and to come under the affective and embodied pull of the film’s suggestion. Far from being distant and analytic, this spectator is embodied and gazeless, while the film itself assumes a distant and rational character.

The two structures of visual pleasure Mulvey analyzes—*fetishistic scopophilia* and voyeurism—are also affective cycles predicated on the manipulability of the viewer and the analytic character of the film itself. As Mulvey’s opening suggests, these are pre-existing gendered and eroticized structures of a heterosexual and patriarchal society, predicated on the division of labor between active masculinity and passive femininity.⁸⁷ In the model presented in classical Hollywood cinema, as in heterosexual patriarchal society, men perform the labor of looking and providing the narrative movement of a film, while women perform the labor of being looked at, of being attractive and entertaining objects of the gaze; in Marxist terms, these roles can be roughly mapped onto productive and reproductive (often affective) labor.

⁸⁶ Raymond Bellour, “Believing in the Cinema,” in *Psychoanalysis and Cinema*, E. Ann Kaplan, ed. (New York: Routledge, 1990), 107.

⁸⁷ Mulvey, “Visual Pleasure” (1999), 838.

The power women have within this system is greater in the structure of fetishistic scopophilia than that of voyeurism. Mulvey describes how the films of Joseph von Sternberg featuring Marlene Dietrich (ex. *The Blue Angel* [*Der blaue Engel*, 1930]) halt the flow of narrative to unite the spectator's gaze with that of the camera and the central male character, all of whom are fascinated by the hypnotic performance of Dietrich, or another glamorous star. These performances are associated with cabaret singing and dancing in many classical Hollywood films, linking the woman's affective labor to some extent with forms of erotic performance like burlesque. Ultimately, fetishistic scopophilia is a structure of labor and of pleasure, with a female performer's embodied and eroticized labor producing visual pleasure for the fascinated spectator and male central character. The viewer is united with, not distanced from, the visual and affective perspective of the central character and that of the film. What is most salient from Mulvey's feminist perspective is this viewer's close relationship with the film and the male characters means a distant relationship to the central female character of the film. However, this relationship of distance is not simply visual/optical, but affective/haptic.

Mulvey's description of voyeurism and its sadistic potential is a clearer example of vision's distancing, analytical and violent aspects, yet this analysis also describes a structure of feeling that ties spectators to the male main character's perspective. *Vertigo* is the most famous example of fetishistic scopophilia, and the most clearly delineated example in the text. Mulvey describes how shot/reverse-shot montage in the slow-paced chase scenes in the film sutures the viewer's perspective to that of Scottie (Jimmy Stewart), whose gaze on Madeleine (Kim Novak) is analytical, investigative, and distanced.⁸⁸ Ultimately, Scottie's

⁸⁸ Mulvey, "Visual Pleasure" (1999), 842.

desire to investigate and control Madeleine, and her alter-ego Judy, leads him to completely change her appearance to his liking, and to chase her off the top of a tower, twice. Mulvey writes, “The audience follows the growth of [Scottie’s] erotic obsession and subsequent despair precisely from his point of view . . . erotic involvement with the look is disorienting: the spectator’s fascination is turned against him as the narrative carries him through and entwines him with the process that he is himself exercising.”⁸⁹ The look in *Vertigo*’s voyeuristic system is erotic, disorienting, fascinating, and entwining. Terms that suggest the spectator’s affective and bodily involvement with the narrative are woven through Mulvey’s analysis. Looking relations, as developed in cinema and projected onto spectators through fascination is ultimately made meaningful by its production of embodied visual pleasure. In my expansion of Marks’s terms, the psychoanalytic model provides an affective and embodied analysis of optical film aesthetics.

I took this lengthy detour through these analyses of Mulvey and Marks because of how they demonstrate a theoretical and textual use of haptic media, re-reading discussions of the visual to highlight the ways in which they discuss the haptic, finding the haptic within their discussions. The following chapters make use of the theory of haptic media proposed in this chapter to analyze new media phenomena of contemporary cultural importance in videogames (Chapter 2), expanded Hollywood cinema (Chapter 3), and the emergent field of virtual reality (Chapter 4). Each chapter uses textual and historical analysis as well as cultural studies approaches to analyze a controversy in each media industry in terms of the haptic. What are the tactile, affective, immersive, and embodied stakes of the rise of indie games as the mainstream of videogame production (Chapter 2), of the increasing use of “4-D” or

⁸⁹ Mulvey, “Visual Pleasure” (1999), 842.

ridefilm elements in film exhibition (Chapter 3), and of the promise of virtual reality coming to consumer availability as a film, gaming, and sexual technology (Chapter 4)? This project shows the utility of the theory of haptic media for understanding how the media and cultural industries are developing toward greater haptic engagement, and for understanding controversies over the future of these industries as a conflict between different haptic modes.

Chapter 2. Videogame Feelings: Haptics and Counterhaptics in Indie Games Culture and the Queer Games Movement

“. . . is this the one? Is this the Oculus Rift demo where I rip the headset off my face and bolt, terrified, out of the room?”

—Chris Kohler on *Alien: Isolation* (Sega, demo 2014)⁹⁰

Chris Kohler of *Wired* is one of those gamers said to be dying out.⁹¹ A fan of first-person shooting (FPS) games of the survival horror genre, Kohler once prided himself on not losing his cool, running gleefully down dark hallways to certain character death. Kohler’s experience with *Alien: Isolation* at E3 2014 was different, however. Edging around the virtual environment with uncharacteristic caution, Kohler actually felt queasy as he trained his virtual flashlight on a 3-D rendering of a dead body, and even felt his heart beating fast as he pondered the impending alien attack. When the alien approached him, Kohler contemplated ripping off the Oculus Rift headset he was wearing to cut the experience short, but his pride won out. “After getting over my initial feeling of accomplishment over having

⁹⁰ Chris Kohler, “The Oculus Rift Game That’s So Real it Nearly Destroyed Me,” *Wired* 10 July 2014, accessed 21 May 2015, wired.com/2014/07/alien-isolation-oculus.

⁹¹ Leigh Alexander’s famous argument that “gamers”—notably “hard-core” gamers imagined as white, heteronormative, and male—are “dying out” has been a key point in the “gamergate” controversy, during which fans adopting “gamer” as an identity harassed female game developers and games critics. I discuss this more below. See Leigh Alexander, “‘Gamers’ Don’t Have to be Your Audience. ‘Gamers’ are Over,” *Gamasutra* 28 August 2014, accessed 8 June 2015, gamasutra.com/view/news/224400/Gamers_dont_have_to_be_your_audience_Gamers_are_over.php. For a primer on Gamergate, see Jay Hathaway, “What is Gamergate, and Why? An Explainer for Non-Geeks,” *Gawker* 10 October 2014, accessed 8 June 2015, gawker.com/what-is-gamergate-and-why-an-explainer-for-non-geeks-1642909080.

mostly kept my cool, I was just blown away by how quickly and thoroughly *Isolation* on Oculus had pulled me into the experience, and shifted that experience from ‘hey, cool, virtual reality!’ to something approaching actual fear,” Kohler wrote in his review.⁹² For Kohler, the test of Oculus Rift’s virtual reality immersion was not its ability to produce intellectual contemplation or technological wonder, so much as its ability to produce involuntary physical and emotional reactions in highly-experienced consumers. That an Oculus game could move a jaded FPS veteran to fear for his physical safety testified to the power of Oculus to make even the most practiced media consumers feel intensely, despite themselves.⁹³

The haptic aspirations of contemporary videogame designs exist on a contradictory continuum. Touch is an element of distraction and an element of immersion, an unpleasant stimulation to be overcome and a desired technological effect to which users submit, something used on gamers that they must learn to negotiate, and something they must learn to use within a set of consensual rules. This chapter enumerates multiple haptic modes in contemporary game design, from the tactility of vibrators and electric “shockers,” to the uses of affect in dominant and queer indie game design, to the controversies surrounding the “queer games scene” of 2012–2013 and the larger queer games movement, and the ways in which “queer” uses of affect in games appear in more dominant indie titles such as the blockbuster indie hit *Undertale* (2015). An outline of these contemporary controversies in

⁹² Kohler, “The Oculus Rift Game That’s So Real it Nearly Destroyed Me.”

⁹³ I have written elsewhere about the demand on “hard core” gamers to maintain a calm exterior, particularly in multiplayer contests such as those in the *Halo*, *Battlefield*, and *Call of Duty* series. See Diana Pozo, “War Games at Home, Home Games at War: Geography and Military First-Person Shooting Games,” *MediaScape* Winter 2012, accessed 9 June 2015, tft.ucla.edu/mediascape/Winter2012_WarGames.html.

terms of touch, be it tactile, immersive, affective, or empathetic, demonstrates the utility of haptic media as a framework for studying videogames in an era where fan feelings have a huge impact on game design and games journalism, as well as the ability of people in games to live their lives in peace.

Videogames' tendency toward sensory overstimulation has often been discussed as a source of distraction which gamers must overcome. Like the titular "pinball wizard" in the rock opera *Tommy* (1969) hard-core gamers must become somewhat immune to games' flashing lights, loud sounds, and tactile jolts to perform successfully and "beat the game." Thus, as Claus Pias argues, the "perfect game" might be imagined as one between two computers; human users simply approximate the unaffected responses of a computer when playing against computer game systems.⁹⁴ The distractions of videogames are not only auditory or visual, but tactile. While vibration and electricity were used in late 19th century coin-operated machines claiming to offer health benefits, the gamification of electricity and vibration in later coin-operated machines of this tradition has also followed a "test-your-strength" model, challenging users to withstand high levels of tactile stimulation.⁹⁵

Two contemporary arcade machines, *The New Addams Family Electric Shock Machine* (Nova Productions, 1999) and *Dark Escape 4D* (Bandai/Namco, 2012), demonstrate how withstanding and ignoring physical stimulation continues to act as a game mechanic. *The New Addams Family Electric Shock Machine*, which can be seen and felt at

⁹⁴ Claus Pias. "The Game Player's Duty: The User as Gestalt of the Ports," in *Media Archaeology: Approaches, Applications, and Implications* (Berkeley: University of California Press, 2011), 164–83.

⁹⁵ For a full study of "shockers," see David Parisi, "Shocking Grasps: An Archaeology of Electrotactile Game Mechanics," *Game Studies* 13 no. 2 (December 2013), accessed 9 June 2015, gamestudies.org/1302/articles/parisi.

the *Musée Mécanique* at Fisherman's Wharf in San Francisco, presents itself as a new form of "shocker," concealing its true vibration mechanic. As David Parisi argues, this replacement of vibration for electrical stimulation as the dominant "shock" of games is a common one made possible by users' decreasing familiarity with the sensation of what Parisi terms "electrotactility," while the horror element of the *Addams Family* machine demonstrates the symbolic power of electrotactility in the twentieth century.⁹⁶

The *Addams Family Electric Shock Machine*, like the PlayStation "DualShock" controller, uses two vibrating motors that the user must grasp with their hands. As electronic organ music plays, the vibrators rev higher and higher, eventually leaving the user's hands numb if they manage to withstand the highest level of vibration. *Dark Escape 4D*, a survival horror game with heart rate monitors built into the game's two-handled light guns, can be found at the Playland Arcade in Santa Monica, where the Teenage Mutant Ninja Turtle arcade games featured in Marsha Kinder's short documentary *Notes from the Turtle Network, or Playing With Power* (video 1991) once stood.⁹⁷ Shaped like a small mausoleum with blood-red curtains concealing its interior, the cabinet for *Dark Escape 4D* promises "Body Shocking 3-D Horror Shooting," and delivers with a system of surround sound, vibrating seats, and air blowers. When they detect an elevated pulse, the game's heart rate monitors penalize gamers for having "panic attacks."⁹⁸ While *Addams Family Electric Shock Machine* simply requires users to hold on to the cabinet's metal handles, *Dark Escape 4D* follows the

⁹⁶ Parisi, "Shocking Grasps."

⁹⁷ Henry Jenkins. "PlayingWithPower-1." *Vimeo* April 2015. Web. <https://vimeo.com/117309063>. Accessed 21 May 2015.

⁹⁸ "DARK ESCAPE 4D." Bandai Namco Entertainment 2015. Web. <http://www.namcoamerica.com/game.php?gameid=37>. Accessed 21 May 2015.

model of survival horror expanded by *Alien: Isolation* on Oculus Rift: stay calm and rush into battle in the face of overwhelming sensory stimulation and distraction. Like the *Addams Family* machine, *Dark Escape 4D* signifies one touch sensation through another: as zombies rush the players and vomit gore in their faces, machinery near the front of the cabinet blows short bursts of air to imitate a sensation of wetness. The semiotic nature of touch in these arcade games where one shocking touch sensation stands in for another type of physical shock demonstrates the use of physical sensation as distraction in dominant games culture.

Touch sensations like those used in *Addams Family Electric Shock Machine* and *Dark Escape 4D* are only intended to touch gamers emotionally insofar as touch challenges them to suppress these physical and affective “feelings.” Console games similarly employ interface vibration elements, such as those in the DualShock series of PlayStation controllers, to signify a range of sensations, from the shocking sensation of the player character being shot in a first-person shooting game, to the gentle shock of a fish pulling on a line in a fishing mini-game. As Amanda Phillips argues, the fighting game *Bayonetta*, famous for its softcore exploitation film aesthetics, employs controller vibration in an almost masturbatory manner—the controller’s vibration becomes more and more intense as the title character’s moves become more powerful and more of her hair (which doubles as her clothing) flies into the air.⁹⁹ As the game requires the player to execute precise combinations of button presses in order to produce such powerful moves, the vibration at this point in the game could also be construed in terms of feeling-as-distraction.

⁹⁹ Amanda Phillips, Conference paper, 14 March 2012, Critical Sexualities Graduate Student Symposium, Santa Barbara, CA.

As this analysis of *Bayonetta* highlights, employing extreme tactile and affective stimulation as distraction, thrill, or titillation may link dominant games culture to the lowbrow film genres of horror (*Dark Escape 4D*), comedy (*Addams Family Electric Shock Machine*), science fiction (*Alien: Isolation*), and softcore pornography and exploitation (*Bayonetta*). However, videogame designers and fans have labored to elevate games' public reputation to that of an art form, a task that often entails a focus on games' narrative power, rather than their power to evoke the body genres. In the mid aughts, critics looked to independently designed games such as Jason Rohrer's 2007 *Passage*—a short-duration game about time and human life with universalizing themes—as a signal that “the ‘games as art’ debate [was] officially over.”¹⁰⁰ By the late aughts and early 2010s, independent games began to taste the cultural and financial success once reserved for tentpole console and PC games. However, independent game development remained a highly exclusionary space, with white, heterosexual men and their interests taking a central place in games' new recognition as an art form. *Indie Game: The Movie* (dir. James Swirsky and Lisanne Pajot, 2012), funded on Kickstarter, presents a narrow view of independent game design during this time, profiling four straight white male designers, all from the US and Canada.

The designers profiled in *Indie Game*—Jonathan Blow of *Braid* (2008), and Phil Fish of *Fez* (2012), and Edmund McMillen and Tommy Refenes of *Super Meat Boy* (2012)—draw upon similar experiences of being born in the 1970s and 80s to middle and upper-middle class families. Their games feature puzzle mechanics and retro-game artwork, and, for the most part, an aesthetic of emotional detachment and reflection. *Braid* and *Fez* aspire

¹⁰⁰ Anthony Burch, “Passage: the Greatest Five-Minute-Long Game Ever Made,” *Destructoid* 11 December 2007, accessed 19 September 2016, destructoid.com/passage-the-greatest-five-minute-long-game-ever-made-58961.phtml.

to artistic recognition with innovative game mechanics and philosophical themes, but even *Super Meat Boy*, a sidescrolling platformer featuring a title character who is a square of bloody meat, engages in metacommentary about videogame genre and history. The choice of these games to represent the “indie” demonstrates how the genre designation represented certain qualities and certain styles of affect.

The rise of the “indie” demonstrates how the ability to make gamers pause to think about their emotions has become a measure of quality not only for immersive interfaces like Oculus, but also for independent games. While *Indie Game*’s 2012 sample of the indie games scene expressed the taste of a particular privileged class of technologically-literate straight white men, the “queer games scene” of 2012 through 2013—a small group of transgender women who used accessible platforms to make “small” and “personal games”—was set up in the press and by fans as this male elite’s antagonist. These games and their authors became symbolic of indie games design’s capacity for “empathy,” a word associated by certain queer games figures with the implication that small games telling queer stories were supposed to help the straight white men dominating indie games empathize with more marginalized designers’ experiences. This conflict between the demand for indie games to be affectively powerful, the tentative genre designation “empathy games,” and fervent critiques by artists whose games were labeled this way—in particular Merritt Kopas, Mattie Brice, and Anna Anthropy—forms the central haptic/counterhaptic tension of this chapter.

The queer games scene is just one part, however, of a larger queer games movement which, like indie games scenes more generally, spans the dominant games industry and its employees, the world of digital art, fan and academic conferences, and academic games labs.

Robert Yang's *Hurt Me Plenty*, a 2015 "hunk spanking game" represents how queer game design offers a nuanced perspective on issues of sexuality in games such as negotiation, consent, and aftercare aspects of kink culture, but it also represents the ways in which academic discourse and academic settings support and cross over with the larger "queer games movement."¹⁰¹ Yang's website describes him as an "indie game developer and part time academic"; he teaches at multiple schools in New York city including NYU Game Center, Integrated Digital Media (IDM) in NYU Poly School of Engineering, and The New School Parsons' Design and Technology MFA program. He is also an academic and popular games critic, whose games engage in critique as surely as his writing. In a 2014 talk at NYU's Game Innovation Lab, Yang discusses "On Your Knees," an earlier version of *Hurt Me Plenty*, as part of a critique of games' tendency to represent sex as a reward rather than an interaction.¹⁰² While many developer-driven games feature sex scenes as one possible node of a dialog tree, *Hurt Me Plenty* makes the sex scene its subject and core mechanic, adding to a tradition of independent games about sex and consent that includes *Realistic Kissing Simulator* (Jimmy Andrews and Loren Schmidt, 2014).¹⁰³

¹⁰¹ Robert Yang. "Hurt Me Plenty: A Short Game About Spanking the Heck Out of Some Dude." *Itch.io* 26 May 2015. Web. Accessed 8 June 2015. <http://radiatoryang.itch.io/hurt-me-plenty>.

¹⁰² Robert Yang. "Cheeky Designs: How to Make a Video Game About Spanking The Heck Out of a Dude." New York University. NYU Game Innovation Lab, New York, NY. 11 December 2014. In POLYGAMELAB. "Indie Tech Talk #23 Robert Yang." *YouTube* 18 December 2014. Web. Accessed 8 June 2015. <https://www.youtube.com/watch?t=444&v=t0ihl0A8JH0>.

¹⁰³ James Andrews and Loren Schmidt. "Realistic Kissing Simulator." *Jimmylands.com* 2014. Web. Accessed 9 June 2015. <http://jimmylands.com/experiments/kissing/>.

Designed to work either with the Leap Motion PC game controller, or with a PC's existing mouse or touchpad, *Hurt Me Plenty* places the user in the position of the dominant partner in a consensual spanking session. First, the user must make an up-and-down motion with their hand, mouse, or touchpad, virtually shaking hands with their partner to negotiate the boundaries of the play session. Spanking can be "heavy" or "light," and the submissive may wear jeans, underwear, or nothing at all. The player and computer also agree upon a safe word, such as "Safeword," or "Red," to be used to indicate play must stop. In the session, the player may use their hand, mouse, or touchpad to virtually spank the submissive, who responds physically and vocally to the user's wrist or finger flicks. Play may end at any time if the player simply stops spanking, or it may go on until the submissive passes out from exhaustion. Though the user has the option to continue spanking after the computer character has uttered his safe word, this is not recommended. The third part of the game asks the player to tenderly stroke the submissive's back and shoulders as he tells them about his emotions and experiences in the scene.

By dividing sexual experience into three stages, each with its own rules and mechanics, *Hurt Me Plenty* offers a nuanced representation of kink practice, even as it critiques dominant modes of presenting sex in games. Daniel Starkey of *Wired* argues that while scenes in games like *Mass Effect* and *God of War* "exist to titillate and empower," games like *Hurt Me Plenty* aim to "[make] players feel confused, awkward, and vulnerable," thus questioning their preconceived notions of sexuality inside and outside the game.¹⁰⁴ Yang positions *Hurt Me Plenty* as an attempt to bring the experience of sex into the consent politics

¹⁰⁴ Daniel Starkey. "If Sex Videogames Make You Feel Weird, That's The Point." *Wired* 25 May 2015. Web. Accessed 9 June 2015. <http://www.wired.com/2015/05/sex-videogames-make-feel-weird-thats-point/>.

of Johan Huizinga's "magic circle," in which all players must agree upon the rules before beginning a game.¹⁰⁵ What may make users feel awkward and uncomfortable is how the game asks us to examine our boundaries and treat the computer character before us as a human partner in a mutual relationship. As Yang argues, this model of consent and mutuality is usually absent in computer culture: computers who fight for survival in the face of human users are framed as "malware," and corporations use "walls of text" in their End User License Agreements (EULAs) to coerce users into consenting to their terms without truly understanding them.¹⁰⁶ By both subverting this atmosphere of non-consent, and offering a three-dimensional simulation of a queer and kinky sexuality many gamers may not be familiar with, *Hurt Me Plenty* distances the user from the emotions they may expect in a gamic sex scene, and immerses them in the rules and aesthetics of consensual kink culture. The game uses the optical haptic dynamics of motion control alongside innovative uses of affective touch to achieve these goals.

This chapter reads games from the queer games movement within the context of dominant games' embattled relationship with the use of affect and the representation of sexuality. The popular indie hit *Undertale* appears in complex tension with the queer games movement, as both an inheritor and an appropriator of these artists' styles. The question of empathy as a mode of touching the player ties together the analysis of *Undertale* with readings of *Empathy Machine* (Merritt Kopas, 2014), *Curtain* (Laura Dreamfeel, 2014), and

¹⁰⁵ Yang. "Cheeky Designs." See also Johan Huizinga. *Homo Ludens: A Study of the Play-Element in Culture*. Boston: Routledge, 1949, p. 10. Web. Accessed 9 June 2015. http://art.yale.edu/file_columns/0000/1474/homo_ludens_johan_huizinga_routledge_1949.pdf.

¹⁰⁶ Yang. "Cheeky Designs."

SABBAT: Director's Cut (Eva Problems, 2015), as well as the place of queer games in the larger framework of videogames culture and academic game studies. This chapter also returns to the question of haptic aesthetics as a way to understand affect in videogames, a medium that has long been understood to touch the body at a physical level through the use of buttons, joysticks, specialized arcade cabinets, and motion gaming interfaces. Just as haptic visibility critiqued sensory and affective regimes understood in terms of “looking relations,” queer games artists and scholars have critiqued the sensory and affective regimes of videogames through their unique use of haptic media.

Feelings Like... : Undertale and the Importance of Affect in Indie Games

I am guiding my character down a long path between two rows of trees, when suddenly the screen itself begins to freeze. My character slows and slows, until finally they disappear behind a haze of geometric ice. The ice layer tracks slowly by as my character gradually appears in silhouette. My opponent, a skeleton who has been tracking me throughout the stage, appears in silhouette after me. As we stand facing each other in abstract emptiness, he begins his pre-battle monologue:

Human. / Allow me to tell you about some complex feelings. / Feelings like... / The joy of finding another pasta lover. / The admiration for another's puzzle-solving skills. / The desire to have a cool, smart person think you are cool. / These feelings... / They must be what you are feeling right now!!!¹⁰⁷

¹⁰⁷ I have rendered this dialog with line breaks to indicate where the player must press a button to advance. *Undertale*, like many RPGs, uses breaks in dialog to great effect as a pacing mechanism.

The skeleton, called Papyrus after the novelty font¹⁰⁸ used to display his dialog, projects what seem to be his insecurities and his own loneliness onto the player character for a few more lines before nearly offering to be my friend, then finally challenging me to fight. In the course of battle, the player must decide whether to kill him in as little as one blow, or to dodge his attacks while trying to befriend him and talk him down. This is *Undertale*, an indie role-playing game produced by Toby Fox on the GameMaker: Studio engine, and published on Steam in September 2015.

While most RPGs require the player to kill numerous monsters to advance their narrative, *Undertale* provides players the option to play non-violently; the game's release trailer advertised "the friendly RPG where nobody has to die." *Undertale*'s non-violent, or "pacifist," path introduces an innovative game mechanic that combines dodging missiles in the style of a top-down "bullet hell" shooting game, with menu navigation in the style of a turn-based RPG.¹⁰⁹ On the opponent's turn, players must navigate their "soul," rendered as a small red heart, to avoid non-player-character attacks, which appear in humorous and relevant shapes such as bones for Papyrus's fight, spiraling water droplets for "Woshua," a

¹⁰⁸ Chris Costello created the Papyrus typeface in 1982. Along with Comic Sans, Papyrus has been criticized for being overused in graphic design. *Undertale* uses both fonts as the names and speaking "voices" of the two skeleton brothers the player character meets first in the Underground: Sans (for Comic Sans), and Papyrus. The fonts are reproduced for the game's pixel art, not taken from a word-processing program.

¹⁰⁹ Some attribute the "Shoot 'em up" genre to the early computer game *Spacewar!* (Steve Russell, 1962); as in *Spacewar!*, players in this genre navigate a small character in four directions, shooting their enemies while dodging enemy projectiles. "Bullet hell" is a subgenre of shooting games popularized in the 1990s, commonly traced to *Batsugun* ("Exceptional", Toaplan, 1993). Enemy projectiles in "bullet hell" games are so numerous and difficult to avoid, that the genre has niche appeal for particularly skilled players. For more on "Shooting" games, see Mark J. P. Wolf. "Video Game Genres," in *The Video Game Explosion: A History from PONG to PlayStation and Beyond*, ed. Mark J. P. Wolf (Westport, CT: Greenwood Press, 2008), 259–74.

washboard-shaped monster, or flexing muscular arms for “Aaron,” a bro-ish seahorse who you can challenge to a kind of bodybuilding contest. The player’s turn may consist of fighting, which turns most monsters to dust in just a few hits, or accessing the “act” menu, which offers the player options of how else to interact with the monsters in the game.

In *Undertale*’s “pacifist” route, the player’s role is to defend themselves and to de-escalate fights, discovering the unique social skills it takes to interact with monsters of the Underground, the series of caves the player must navigate before attempting to break the Barrier that separates monsters from the outside world. To de-escalate Woshua, simply ask the monster to clean you, and catch green droplets (“green means clean,” Woshua says, helpfully). To avoid killing Aaron, the player must flex repeatedly, until Aaron flexes himself off the screen. The results of this social skill mechanic can be humorously awkward: to de-escalate the fight with Papyrus, the player must initially “flirt,” unknowingly asking Papyrus out on a date! The skeleton spends much of the fight putting various scented products behind his ears, before realizing he does not have ears. Meanwhile, the player is furiously jumping over Papyrus’s bone-shaped attacks. After befriendng Papyrus, the player has the choice to begin the promised date, which also takes place in the battle screen. *Undertale* not only offers the option of gaming without using violence against NPCs, but shows how such non-violent games may be fast-paced, difficult to complete, and narratively complex. By using visual and mechanical tropes of the turn-based RPG and shooting genres, *Undertale* re-mixes and critiques traditional videogame conventions, and questions the structural conceits of dominant videogames and videogame culture.

Undertale’s independent production, simplistic graphics, humorous tone, and occasional critiques of videogames as a medium might make the game seem contrary to

dominant games culture's reputation for violent thrills. However, *Undertale* has drawn near-universal acclaim, briefly leaping to the top of Metacritic's ranking of PC games in October 2015 to outpace such AAA giants as *Half-Life 2* (Valve Corporation, 2004), *Grand Theft Auto V* (Rockstar North, 2013), *The Orange Box* (Valve Corporation, 2007), and *BioShock* (2K Boston/2K Australia, 2007).¹¹⁰ Currently, *Undertale* has a Metacritic score of 92 ("universal acclaim"), and a user score of 8.2 ("generally favorable"). It has also won numerous awards, including GameFAQ's "Best Game Ever" contest, in a surprise victory against runner-up *The Legend of Zelda: Ocarina of Time* (Nintendo, 1998).¹¹¹ Journalist Leigh Alexander's 2014 *Gamasutra* article arguing to developers that, "'Gamers' don't have to be your audience. 'Gamers' are over," was met by some in the midst of the anti-feminist Gamergate Controversy with rage and disbelief.¹¹² Yet the rise of *Undertale* after the Gamergate dust has cleared seems to confirm Alexander's claim that the games culture of the 00s—dominated by big-budget military first-person shooting games and medieval and space-themed role-playing games—is shifting to include more independent developers, more lo-fi graphics, and less appeals to, if not a critique of, what Stephen Kline, Nick Dyer-Witheford

¹¹⁰ Laura Kate Dale, "Undertale is the Highest Rated PC Game on Metacritic Right Now," *Destructoid* 5 October 2015, accessed 20 September 2016, destructoid.com/undertale-is-the-highest-rated-pc-game-on-metacritic-right-now-313962.phtml.

¹¹¹ Allegra Frank, "Undertale Wins GameFAQ's Best Game Ever Contest," *Polygon* 16 December 2015, accessed 20 September 2016, polygon.com/2015/12/16/10323192/undertale-gamefaqs-best-game-ever. See also "Best. Game. Ever. Final Bracket Results," *GameFAQs*, accessed 20 September 2016, gamefaqs.com/features/bge20_vote.

¹¹² Leigh Alexander, "Gamers Don't Have to Be Your Audience. 'Gamers' are Over."

and Grieg De Peuter (2003) have called “militarized masculinity.”¹¹³ Perhaps the game’s most important contribution is to expand the affective landscape of games for a broad audience. *Undertale* shows that games are not all about the thrill of victory and the frustration of defeat, that games can and in fact *should* access a broader range of emotions from guilt and social anxiety to friendliness, humor, and “the desire to have a cool, smart person think you are cool.”

Of course, Toby Fox was not the only independent game designer to push games in this direction. The past ten or so years have seen a renaissance of independent art games, variously described in terms of “countergaming” (Alexander Galloway, 2006), “serious games” (Ian Bogost, 2007), and the “rise of the videogame zinesters” (Anna Anthropy, 2012).¹¹⁴ Independent games initially gained prominence as part of an argument that games should be considered an art form, with scholars and journalists alike highlighting the expressive range of “small” short-duration games like *Passage* (Jason Rohrer, 2007), which *Destructoid* called the “greatest five-minute-long game ever made.”¹¹⁵ By 2014, independent art games had earned a reputation for bringing much-needed diversity to videogame culture, particularly through the work of often-queer often-trans women designers. The critically-

¹¹³ Stephen Kline, Nick Dyer-Witheford, and Grieg De Peuter, “Designing Militarized Masculinity: Violence, Gender, and the Bias of Game Experience,” in *Digital Play: The Interaction of Technology, Culture, and Marketing* (New York: McGill-Queen’s University Press, 2003), 246–68.

¹¹⁴ See Alexander R. Galloway. *Gaming: Essays on Algorithmic Culture*; Ian Bogost, *Persuasive Games: The Expressive Power of Videogames* (Cambridge: MIT Press, 2007); and Anna Anthropy, *Rise of the Videogame Zinesters: How Freaks, Normals, Amateurs, Artists, Dreamers, Dropouts, Queers, Housewives, and People Like You are Taking Back an Art Form* (New York: Seven Stories Press, 2012).

¹¹⁵ Anthony Burch. “Passage: the Greatest Five-Minute-Long Game Ever Made.”

acclaimed “queer games scene” of 2012-2013 expanded the range of stories that could be told in games, as well as games’ affective range, visual style, and procedural rhetoric. Scholar and game designer Merritt Kopas has argued that this “scene” has been misunderstood as cohesive and lasting, while her experience of it was more loosely-organized and short-lived.¹¹⁶

In August 2014—as queer-designed games like *Dys4ia* (Anna Anthropy, 2012), *Mainichi* (Mattie Brice, 2012), and *Lim* (Merritt Kopas, 2012) were canonized by academics and the press, and some others with queer characters like *Gone Home* (Fullbright, 2013), gained recognition for bringing artistic diversity to games—marginalized games artists suddenly found themselves targeted by the Gamergate controversy, one of gaming’s most violent incidents and anti-feminist harassment campaigns. While media critic Anita Sarkeesian of Feminist Frequency had been targeted by misogynist defenders of “game culture” in 2012, Gamergate expanded its focus to target women who had gained any level of fame in game design or games journalism.¹¹⁷ The recognition these artists had earned in the

¹¹⁶ Naomi Clark and Merritt Kopas, “Queering Human-Game Relations: Exploring Queer Mechanics and Play,” *First Person Scholar* 18 February 2015, accessed 20 September 2016, firstpersonscholar.com/queering-human-game-relations/; Merritt Kopas. “Introduction,” in *Videogames For Humans: Twine Authors in Conversation*, ed. Merritt Kopas (San Francisco: Instar Press, 2015), 5–19. For an example of the journalistic treatments Kopas critiques, see Brendan Keogh, “Just Making Things and Being Alive About It: The Queer Games Scene,” *Polygon* 24 May 2013, accessed 20 September 2016, polygon.com/features/2013/5/24/4341042/the-queer-games-scene.

¹¹⁷ For more on Anita Sarkeesian’s 2012 experiences, see Oliver Moore, “Woman’s call to end videogame misogyny sparks vicious online attacks,” *Globe And Mail* (Toronto), 11 July 2012. <http://www.theglobeandmail.com/news/world/womans-call-to-end-video-game-misogyny-sparks-vicious-online-attacks/article4405585/>; and “Anita Sarkeesian at TEDxWomen 2012” *TEDx* 5 December 2012. <http://tedxtalks.ted.com/video/Anita-Sarkeesian-at-TEDxWomen-2>. For a general discussion of Gamergate, see Jay Hathaway. “What is Gamergate, and Why?: An Explainer for Non-Geeks.”

early 2010s thus transformed to notoriety as their personal lives, dating histories, and gaming credentials were pulled apart on social media. While queer and other marginalized game designers faced the brunt of the abuse and harassment of Gamergate, the controversy also highlighted problems with games culture's focus on violence, masculinity, and credentials, setting the stage for *Undertale*'s success.

Because *Undertale*'s designer, Toby Fox, passes as a straight white man,¹¹⁸ the game has been able to bring some queer content, primarily in the form of its characters, to the mainstream, while still being viewed as a serious game for true games fans, and earning praise from fans for not “making these elements . . . the main focus of the game.”¹¹⁹ As Lisa Nakamura argues (2012), the prevalent pattern of locating game proficiency and game culture in white masculinity makes it possible for white men to use game language to make points about diversity, while anyone else faces vicious bullying for simply claiming to like games. Nakamura writes:

It is abundantly apparent that the more gaming capital becomes identified with white masculinity, the more bitter the battle over its distribution, possession, and circulation

¹¹⁸ Toby Fox is famously tight-lipped in interviews, and identifies as “a dog” on social media. Thus, I was unable to find any reliable reports about his sexual or gender identity, and do not know whether he identifies as queer or trans. However, his looks and taciturn style allow Fox to pass as a straight white male online, which may be all that matters to trolls, as Whitney Phillips argues. See Whitney Phillips, *This is Why We Can't Have Nice Things: Mapping the Relationship Between Online Trolling and Mainstream Culture* (Cambridge: MIT Press, 2015). For an interview with Fox, see Chris Isaac, “Interview: *Undertale* Game Creator Toby Fox,” *The Mary Sue* 10 December 2015, accessed 20 September 2016, themarysue.com/interview-undertale-game-creator-toby-fox/.

¹¹⁹ See the comments thread for PCRuinsEverything. “Undertale’s crazy success proves gamers are ready for feminism, queer romance, and progressive values.” *Reddit*, 17 November 2015. https://www.reddit.com/r/Undertale/comments/3t45cn/undertales_crazy_success_proves_gamers_are_ready/.

will become. As gaming culture becomes more heavily capitalized both economically and symbolically, it becomes both more important for women to gain positions of power as critics, makers, and players, and more likely that it will be denied.¹²⁰

Though it is undeniably important, and enjoyable, for games like *Undertale* to exist, the contrast in reception between a game with queer content like *Undertale* and games by queer artists proves that Nakamura's points continue to structure game production, reception, and criticism. By tracing *Undertale*'s influences to the contributions of queer games artists and critics, focus may be restored from queer content in popular games like *Undertale*, to queer artists whose games may include less identifiably "queer" content and may be less popular. This *queer games avant garde*, composed of both artists and scholars, has challenged the fundamental mechanical, aesthetic, and affective structure of games and games culture.

Queerness and Games: The "Queer Games Scene" and the Queer Games Movement

In May 2013, *Polygon* writer Brendan Keogh profiled what he called the "queer games scene," a small but growing group of queer trans women making independent videogames following the publication Anna Anthropy's 2012 book *Rise of the Videogame Zinesters*. The article, and an accompanying "Human Angle" video profiling "Queer Games: The Secret Avant Garde of Videogames," highlighted recent work by Anthropy, Mattie Brice, Merritt Kopas, Liz Ryerson, and Porpentine, including *Lim*, *Mighty Jill Off* (Anthropy, 2008), *Lesbian Spider Queens of Mars* (Anthropy, 2011), *Dys4ia* (Anthropy and Ryerson), *Mainichi*, and *Cry\$tal Warrior Ke\$ha* (Porpentine, 2013). Beginning in 2012, Keogh argued,

¹²⁰ Lisa Nakamura. "Queer Female of Color: The Highest Difficulty Setting There Is? Gaming Rhetoric as Gender Capital." *Ada: Gender, New Media, and Technology* 1 (2012): doi:10.7264/N37P8W9V.

these artists came together to form “a vibrant scene of queer game developers—a varied community of DIY creators who are making their own space to craft innovative and unique videogames on the periphery of both indie communities and the mainstream industry.”¹²¹ The article focused on a particular group of queer designers without traditional computer science training or dominant games industry experience, presenting the artists and their work as a challenge to dominant game culture. While the dominant games industry continued to struggle with issues of representation and diversity, the piece argued, short-duration games made with widely-available game design tools like GameMaker Studio (1999), RPG Maker VX (2007), Twine (2009), and Construct 2 (2011) would soon diversify games through small, personal, and narrative pieces made by queer gamers themselves.

Keogh’s article is representative of press discussing independent games by queer or otherwise marginalized artists, in that it juxtaposes descriptions of innovative game design with representations of the designers’ marginalization in the games industry and in the world. While the games being described often feature abstract or minimal artwork, articles like this *Polygon* piece frequently use photographs and video of queer artists posing alongside their work to highlight the style and personality of the designers for readers, and to suggest that these conceptual games are representative of their lives and selves. For example, “Queer Games: The Secret Avant Garde of Videogames,” a video presented by Internet Explorer, depicts games critic, designer, and scholar Mattie Brice, a trans woman of color navigating the urban environments of San Francisco and New York, cut together with an interview in her bedroom in which she describes her history of games fandom and criticism, and images from *Mainichi*, a game Brice designed about walking through an urban environment and

¹²¹ Keogh, “Just Making Things and Being Alive About It: The Queer Games Scene.”

experiencing discrimination as a trans woman. The video depicts *Mainichi* primarily in autobiographical terms, emphasizing how Brice made the game for a friend to explain her experiences. Brice shows the game as it appears in RPG Maker VX, arguing, “This game is not so technologically advanced or complex that the typical person can’t make it, but that’s kind of the point.” As she navigates the main character, a 2-D sprite, through a street scene where passers-by engage in virtual harassment based on her gender, Brice explains: “I basically just pulled quotes from my life. Everything that happens in this street scene are things that have actually happened or have been said to me.”

The video goes on to depict the 2013 Different Games conference at NYU’s Polytechnic School of Engineering in Brooklyn, the conference’s first year. Journalist Leigh Alexander discusses a panel she moderated featuring Brice and Anna Anthropy: “The idea of a *personal game* isn’t unique to minorities or to the queer community, but you can see why the idea of using accessible tools to tell personal stories might be attractive to those people who are now being heard for the first time.” Overall, the video argues that “queer games” are a new field, in which marginalized designers can tell personal stories about their experiences of discrimination, despite not having computer programming skills or access to the dominant games industry. On these terms, a small group of queer game designers launched their careers, accessible game design tools gained public recognition, drawing fans of the queer games scene to make their own games, and conferences like Different Games, the Queerness and Games Conference, and the fan convention GaymerX (all launched in 2013), earned funding from academic institutions, crowdfunding campaigns, and the games industry. However, these terms were also limiting and problematic in many ways.

First, press portrayals of queer game designers as purely disruptive outsiders were at odds with these artists' limited acceptance in academic environments, such as NYU's Polytechnic School of Engineering, and the fact that games and designers from the scene had also earned recognition in the independent games industry. Prior to Keogh's article, *Dys4ia* had recently been nominated for two awards at the 2013 Independent Games Festival—"Excellence in Narrative" and the "Nuovo Award" for innovation. A few months after, Anthropy received the "Game Changer Award" from Indiecade 2013, while Porpentine's Twine Compilation, which included *Cry\$tal Warrior Kesha*, *Howling Dogs*, and *Ultra Business Tycoon III* (2013) along with four others, won "Special Recognition," as the game which "best reflects the IndieCade values in the group of finalists." IndieCade's website states of the compilation: "It exemplifies a true work of passion, contributing to the cultivation of artistry in games . . . [and] uses the medium of games in a way that elicits the elusive, yet universal, experience often associated with any work of true art."¹²² This description shows the broad influence and artistic respect the queer games scene began to command in 2013, even as its artists struggled with financial insecurity, and marginalization inside and outside the games industry. As Kopas wrote in 2015 of the scene, "A very small number of authors gained visibility in this period, and almost all of them still struggle with material insecurity. . . . This is what an artistic revolution looks like: some people get a little famous, nobody gets rich, and years later, people who have more resources than you steal your ideas and use them to get richer and more famous than they already were."¹²³ As Kopas

¹²² 2013 IndieCade Festival, 2014, accessed 20 September 2016, indiecade.com/2013/award_winners.

¹²³ Merritt Kopas. "Introduction," 8.

argues, the queer games scene was symbolic of the need for better and more diverse representation and more complex narrative techniques in games, a contribution the broader games industry was quick to capitalize on. In this way, the “outsider” status of the queer games scene ensured that its creators would also be excluded from the influence their works had on the games industry and games culture.

Second, focusing on directly autobiographical games misrepresents the complexity of representation and subject matter accessed by queer game designers and their works.

Autobiographical or semi-autobiographical games like *Mainichi* coexisted in the canon described in Keogh’s article with surreal fantasies like *Cry\$tal Warrior Ke\$ha*, which has the player attack “haters” as a superhero version of the singer, and more traditional arcade-style games with kink content, like Anthropy’s *Mighty Jill Off* and *Lesbian Spider Queens of Mars*. Games that could be considered autobiographical in a broad sense used different visual styles, mechanics, and affective content to portray their authors’ experiences. *Lim*, commonly understood as a representation of the pain of passing and the risks of visibility, depicts a rainbow square navigating a maze of differently colored squares, an abstraction that hardly represents exact moments from creator Merritt Kopas’s life. *Mainichi*’s surreal gauntlet of non-player characters repeating comments Brice has faced throughout her life is more visually representational, yet its mechanics, in which the player does not have the option to respond to or escape from the cruel comments bystanders make, help communicate a sense of dreamlike powerlessness. This sense of being in a dream is enhanced by the fact that the game repeats the same banal narrative of getting ready, walking past street harassers, and meeting a friend at a coffee shop on an endless loop. *Dys4ia* uses a variety of arcade-like mechanics and an episodic narrative to depict the steps involved in a fictionalized and

abstracted version of Anthropy's hormonal transition. The game portrays its main character in a variety of shapes, including a shield, a chomping mouth, a lumpy humanoid, and geometric Tetris-like piece. In contrast to *Mainichi*, *Dys4ia*'s depiction of street harassment focuses on the main character's changing responses to casual misgendering. At first, NPCs address the player character as "sir," and the player character corrects "ma'am" in a small gray word bubble. In the game's final level "It Gets Better?" this scene is repeated, with the player character clearing away another character's "sir" with a giant word balloon "MA'AM."

Finally, discussions of queer games in terms of pain, failure, and discrimination risk pathologizing the games and their creators. A recent *New York Times* video entitled "Games You Can't Win" presents interviews with Anna Anthropy (discussing *Dys4ia*), Ryan and Amy Green, whose unwinnable battle with their son's cancer inspired *That Dragon Cancer* (Numinous Games, 2016), and Matt Gilgenbach, whose experiences with depression and obsessive-compulsive disorder inspired *Neverending Nightmares* (Infinitap Games, 2015).¹²⁴ Each interviewee sits in front of a green screen, so that the games depicting events from their lives can appear directly behind them as they speak. This video, which implicitly aligns the hormonal transition depicted in *Dys4ia* with mental illness and the death of a child, is a particularly egregious example of how press discussions of queer games sometimes relate transgender experience to pathologizing concepts like death and disease.

By 2015, the "scene" described here had already disintegrated, and many of its artists were no longer on speaking terms. Yet the image of a queer games scene filled with radical

¹²⁴ David Osit and Malika Zouhali-Worrall. "Games You Can't Win." *New York Times* 17 March 2016. <http://www.nytimes.com/video/opinion/100000004275998/games-you-cant-win.html>.

artists, accessible tools, and groundbreaking games had an enormous impact on the world of videogames. In her introduction to *Videogames For Humans: Twine Authors in Conversation*, Merritt Kopas wrote:

Late 2012 and early 2013 was an extraordinarily exciting period for me: I started, for the first time, to feel like I was part of something. The “queer games scene” covered by videogame outlets might not have been as cohesive as some accounts supposed, but for a little under a year, it definitely felt real. . . . We were writing about messy lives on the economic and social margins of society, about the complexities of embodiment and community, about our grotesque cyberpunk dreams and gay pulp fantasies. Things fell apart, as they often do in tightly knit, passionate communities of artistic people with few resources But that period was intensely generative, launching a number of authors into visibility and recognition and solidifying the reputations of others.¹²⁵

In Summer 2015, I taught a workshop on queerness in game design with Chris Goetz, part of the Queerness and Games Conference (QGCon) at the University of California Berkeley. This workshop, sponsored by the Berkeley Center for Diversity and students’ technology fees, was one of the few venues on campus for interested students to learn about game design. Many of our students joined the workshop because of their interest in queer issues, but others joined to make their first game, their first step towards a career in the dominant or indie games industry. In the first week of the workshop, we combined lectures in queer game design and queer theory with a list comprised mostly of queer games scene texts for students to play. By the final week, students were expected to produce a game showcasing “queer

¹²⁵ Merritt Kopas. “Introduction,” 7.

mechanics” and/or queer content, to be exhibited at the QGCon Arcade. In this way, queerness, queer theory, and the queer games scene performed a minor gatekeeping function for students at UC Berkeley to learn about independent game design.

QGCon also demonstrates how the queer games scene of 2012–2013 is just one aspect of a larger movement surrounding queerness and games that includes games artists, industry professionals, critics, and scholars. The founders of QGCon include Mattie Brice, academic games scholars Bonnie Ruberg and Chris Goetz, and professional game designer Chelsea Howe. As of 2015, the organizing committee for the conference also included myself, scholar-artist Dietrich Squinkifer, and historian Zoya Street of the ezine *Memory Insufficient*, who also works as a translator and consultant. As is the case with many art movements, queer games exist across academia, industry, the art world, and the queer community.

The scholarly queer games movement has fought to publicize and critique queer content in AAA games, document queer game players’ experiences, highlight the contributions of queer game designers, and argue for the presence and importance of queer game mechanics. While queer scholars have always worked in videogame studies, explicitly queer games scholarship is currently reaching critical mass with several monographs and edited collections dedicated to queer issues challenging how scholars view queerness, games, diversity, and representation. Adrienne Shaw’s *Gaming at the Edge* uses an ethnographic study of queer and otherwise marginalized game fans to argue that marginalized players do not necessarily need to see images of themselves represented in games, and that arguing for better representation based on the “market logic” that marginalized consumers will buy texts about marginalized people puts too much responsibility on already disadvantaged segments

of the games community.¹²⁶ A 2015 special issue of *QED* brings together work by queer games scholars including Edmond Chang, Bonnie Ruberg, and Adrienne Shaw with work by queer game organizers and designers Jeffrey Sens and Matt Conn.¹²⁷ Finally, anthologies edited by Jennifer Malkowsky and TreaAndrea Russworm, and Bonnie Ruberg and Adrienne Shaw, bring together the work of many more queer game scholars across theory and practice, including Jordan Wood, Jack Halberstam, Colleen Macklin, Kathryn Bond Stockton, Zoya Street, Chris Goetz, Mattie Brice, Merritt Kopas, Robert Yang, Amanda Phillips, and many more.¹²⁸

The queer games scene came to prominence in 2012 and 2013 as an outsider movement of designers using accessible tools to tell personal stories in small, short-duration formats. However, imagining queer games in terms of the “outsider,” the “personal,” and the “small” is simply incorrect in the face of this large and burgeoning movement of queer games scholars, artists, critics, and professionals. Moreover, the terms on which this queer games movement was originally understood often reified the construction of “real” games as universal, big, and (therefore) not-queer. For example, the *Polygon* article described above states, “It is a movement of creators that prioritize the personal over the perfect,” implying

¹²⁶ Adrienne Shaw. *Gaming at the Edge: Sexuality and Gender at the Margins of Gamer Culture*. Minneapolis: University of Minnesota Press, 2014.

¹²⁷ Morris III, Charles E. and Thomas K. Nakayama (eds.), “Queerness and Video Games” special issue, *QED: A Journal of GLBTQ Worldmaking*, volume 2, issue 2 (2015), muse.jhu.edu/issue/32156.

¹²⁸ See Jennifer Malkowsky and TreaAndrea Russworm, eds., *Identity Matters: Race, Sexuality, and Gender in Video Games* (Indianapolis: Indiana University Press, forthcoming 2017); and Bonnie Ruberg and Adrienne Shaw, eds., *Queer Game Studies: Gender, Sexuality, and a Queer Approach to Game Studies* (Minneapolis: University of Minnesota Press, forthcoming 2017).

that the queer games scene produced “imperfect” games, while other independent games and/or the dominant games industry pursue “the perfect.”¹²⁹ Just as valorizing queer games artists for being outsiders maintained their exclusion from the financial and cultural rewards of the videogame industry, rubrics like the “small” and the “personal” imply that games by queer artists are of lesser importance.

Some queer games artists pushed back with particular intensity against the discourse of *empathy games*, the idea that games depicting experiences of discrimination and marginalization could help privileged game players understand the “game mechanics” behind social inequality. Not only does the concept of the empathy game imply that players may be able to experience marginalization through playing games by queer designers, but as Lisa Nakamura argues, “explaining race and gender as a structural advantage, an aspect of a made environment that was designed to reward some types and punish others, lets white male [players] hold themselves blameless for their own advantages.”¹³⁰ As I discuss below, the discourse of empathy games attempts to frame queer games’ challenge to the dominant affective regimes of the videogame industry. However, the affective range of queer games is much more complex, as designers who have critiqued “empathy games” demonstrate.

The Trouble With Empathy: Counterhaptic Affect in Queer Games

“hello friend,” Merritt Kopas’s *Empathy Machine* begins. “have you ever thought” / “what if” / “you were like, a different gender” Each line appears as gray Arial text on a stark black background, the final word glowing bold white. “can you imagine?” it continues. “of course

¹²⁹ Keogh, “Just Making Things and Being Alive About It: The Queer Games Scene.”

¹³⁰ Lisa Nakamura. “Queer Female of Color.”

you can't". As in many text-based Twine games, when the user clicks the emphasized word, a new segment of text appears. The pacing is teasingly slow, as if telling a familiar joke to a friend who already knows the punchline. Or, depending on audience, the game frustrates the player by refusing to begin its promised "virtual reality" experience. "but now," continues the text, "we can show you"/ "you can experience empathy" (emphasis added).¹³¹ The game goes on to ask the player to touch the screen. Say no, and it tells you fingerprints are a small price to pay for this glimpse into another person's reality. After a moment, without ceremony, the simple text asks if the player feels differently after this gameplay experience. No? Of course not.¹³²

Advertised with a photo of the Oculus Rift virtual reality headset, *Empathy Machine* critiques the commonly-held notion that media—particularly virtual reality—can be used to translate experiences, helping those who have never experienced certain forms of oppression, trauma or disability to empathize with other people who have.¹³³ In particular, Kopas responds to the idea that videogames with queer themes or by artists of the queer games movement will help the white, straight, cisgender male imagined audience of dominant videogames culture to feel empathy with the transgender women leading queer games, and/or that "empathy" is an affective goal of the queer games movement. *Empathy Machine* addresses this discourse of *empathy games* by positioning the player as a cisgender person

¹³¹ Merritt Kopas, *Empathy Machine*, Twine, March 2014, accessed October 2015, mkopas.net/files/empathymachine.html.

¹³² As of May 23 2016, "EMPATHY MACHINE" was no longer available on Kopas's website.

¹³³ See for example Jennifer Alsever, "Is Virtual Reality the Ultimate Empathy Machine?" *Wired* [no date], accessed 20 September 2016, www.wired.com/brandlab/2015/11/is-virtual-reality-the-ultimate-empathy-machine/.

casually interested in the idea of transgender (“what if you were like, a different gender”), then linking this casual interest to the desire to “experience empathy.” In practice, many players of this game would be transgender. As such, the game functions simultaneously as a joke about the idea of empathy games for some and a humorous critique of straight cis men’s fandom of the queer games scene for others.

For Steve Wilcox of *First Person Scholar*, *Empathy Game* is an oversimplification. Writing during the Gamergate controversy, Wilcox argues that videogames inherently promote empathy, though games culture might not seem particularly “empathetic” at the moment:

The argument here is a simple one: art can train us to be more empathetic and understanding. But from the outset here I want to clarify that my approach to empathy differs from the idea that it is a given innate quality that certain people fail to exercise. Furthermore, I will not be arguing that games allow us to be more understanding because we have now experienced what it is like to be another person (Merritt Kopas has lampooned this idea rather well with her “Empathy Machine”). Instead, I suggest that empathy is a skill and that videogames can and do train that skill.¹³⁴

¹³⁴ Steve Wilcox. “Videogames and Empathy: Towards a Post-Normative Ludic Century.” *First Person Scholar* 30 July 2014. <http://www.firstpersonscholar.com/videogames-and-empathy/>.

In arguing games can train empathy, Wilcox responds to Heather Chaplin's comments on the *Manifesto for a Ludic Century* [2013], which she developed with Eric Zimmerman.¹³⁵ This manifesto argues that videogames will be the defining art form of the 21st century, yet in Heather Chaplin's accompanying comments, she seems to wonder what future will be brought about by a ludic century in which systematic thinking becomes the norm:

The neurologist Simon Baron-Cohen argues that there are two kinds of brains: one hardwired for empathy and one hardwired for building and understanding systems. (The former is usually a female brain and the latter a male brain, in Baron-Cohen's account – but let's put that aside for now.) . . . If it's true that we're moving into a Ludic Century – an era that rewards and elevates this systemizing personality type – what happens to emotional intelligence and empathy? . . . Are we moving into a future in which plenty of people are logical, good at recognizing patterns, and analyzing the way things work, but in which fewer and fewer of us are able to empathize?¹³⁶

This argument positions women and femininity as providing an essential ingredient to an otherwise masculine and systematizing technological future. Chaplin associates femininity with empathy, and masculinity with a certain brand of "systematizing" apathy. Furthermore, she links military first person shooting games such as *Call of Duty* with this masculinized

¹³⁵ Eric Zimmerman and Heather Chaplin. "Manifesto: The 21st Century Will Be Defined By Games." *Kotaku* 9 September 2013. <http://kotaku.com/manifesto-the-21st-century-will-be-defined-by-games-1275355204>.

¹³⁶ Heather Chaplin. "The Ludic Century: Exploring the Manifesto." *Kotaku* 9 September 2013. <http://kotaku.com/manifesto-the-21st-century-will-be-defined-by-games-1275355204>.

opposite of “social intelligence and empathy.”¹³⁷ While this argument helps explain why women and femininity should be important to technology culture, it does so by reifying traditional gender roles, and naturalizes assigned genders at birth and the gender binary, making this hardly a queer or trans-friendly way of justifying the importance of femininity to videogames.

Wilcox challenges the binary presented in Chaplin’s comments cited above by arguing that the systems aesthetics of videogames may in fact train empathy, not just systematic thinking. However, he also attributes games that train empathy to female and queer designers and educators. After first analyzing “Equality Street,” a game created by students in Amanda Phillips’s “Gaming the System” class at the University of California Santa Barbara, in terms of empathy,¹³⁸ Wilcox links the ability to teach empathy to the usual roll call of queer-designed and queer-themed games, writing, “games such as *Dys4ia*, *Gone Home*, *Mainichi*, *Lim*, *Depression Quest*, *Howling Dogs*, and many more offer a potential glimpse into the future of videogames that is far more empathetic than apathetic.”¹³⁹ By finishing his article with this list, Wilcox seems to support the empathy games thesis, finding it useful to argue for a more diverse future in videogame design. Yet by critiquing *Empathy Game*, Wilcox seems to reject queer games artists’ arguments that frame the discourse of empathy and its meaning for queer games artists’ work as problematic.

This lengthy analysis of a scholar’s blog entry is not intended as a personal critique,

¹³⁷ Heather Chaplin, “The Ludic Century: Exploring the Manifesto.”

¹³⁸ Amanda Phillips, “Crossing Paths With Colorblindness: Equality Street,” *Gamer Trouble* 19 November 2013, accessed 20 September 2016, gamertrouble.wordpress.com/2013/11/19/crossing-paths-with-colorblindness-equality-street/.

¹³⁹ Steve Wilcox, “Videogames and Empathy: Towards a Post-Normative Ludic Century.”

but as an example of the way the discourse of empathy may instrumentalize the queer games scene to benefit the reputation of the videogame medium, not to amplify the voices of the games' creators. As this analysis demonstrates, queer games may be held up as promoting empathy against the artists who make these games' explicit wishes, all in the name of diversity in videogames. Meanwhile, queer games artists may struggle to have their perspectives heard, and to earn a living through their work. Leigh Alexander writes, "The rise of 'empathy games' has formed a landscape on which players have learned to prize unconventional, anti-capitalist, personal works, and it has been boldly led by women and marginalized people in recent years. But while these games make players glad to feel things, these important works don't usually sustain their creators."¹⁴⁰ In her artist's statement for *Empathy Game* (2015), which critiques the discourse of empathy by asking players to literally walk a mile in a pair of the artist's old boots to earn a single "point," Anna Anthropy writes:

. . . it seems like the people with the greatest investment in the "empathy game" label are the ones with the most privilege and the least amount of willingness to improve themselves. A writer from the *Wall Street Journal* who interviewed me for an article about "empathy games" asked me about my genitals. His editor, whom I contacted, told me, "We take this as a lesson learned for the future, on how to interact with people more appropriately." Nothing was learned. You could say that *Empathy Game* is a deeply cynical piece that suggests that art (or at least games) are incapable of communicating meaningful information and experiences. In fact, the opposite is true.

¹⁴⁰ Leigh Alexander, "This 'Empathy Game' Reveals a Real Challenge for Indie Games," *Offworld*, 9 September 2015, accessed 20 September 2016, boingboing.net/2015/09/09/this-empathy-game-reveals.html.

I respect games too much to see them relegated to a way for the privileged to opt out of their responsibilities, to allow them to become the trendy new format for afterschool specials.¹⁴¹

Here, Anthropy agrees with Nakamura's argument that conceptualizing systemic oppression in terms of the gaming discourse of "difficulty settings" absolves privileged people of their participation in an oppressive system.¹⁴² The discourse of empathy as education, a "lesson learned for the future," may continuously position marginalized people as educators, reframing their experiences of discrimination as teachable moments they could fail to properly exploit. In this way, Anthropy's argument shows how "empathy" is linked to the ongoing responsibility placed on marginalized game designers to diversify the videogame industry by their presence. As Adrienne Shaw argues:

representation in game texts is consistently linked with lack of diversity in the video game industry. This linking, in turn, presumes that the mere presence of women (or members of any marginalized groups) in the industry will automatically result in more diversity in texts. To quote Charlotte Burch, this "add women and stir" approach assumes there are no structural limitations within the industry that preclude this representation, that men in the industry are simply incapable of creating texts that are not representations of themselves or their fantasies, and that all women are feminists.¹⁴³

¹⁴¹ Anna Anthropy, "Empathy Game," Artist's Statement 2015, accessed 20 September 2016, auntiepixelante.com/empathygame/.

¹⁴² Lisa Nakamura, "Queer Female of Color."

¹⁴³ Adrienne Shaw, *Gaming at the Edge*, 5.

While the responsibility to diversify the games industry has historically been linked to visual representation and character design, queer game designers' responses to "empathy" suggest this "add women and stir" diversity imperative may now be linked to the use of certain game mechanics and game design platforms, which are understood to produce certain affective structures and represent certain experiences. Regardless, this set of assumptions "put[s] the burden of creating more diverse representation on marginalized groups, insisting that if they invest in the industry as producers and consumers, representation will change."¹⁴⁴ In this context, *Empathy Game* reflects upon the success of *Dys4ia*, a staple of the queer games scene, and perhaps the key game imagined within the structure of "empathy." While the game has been seen by many as an opportunity for cisgender players to learn about hormonal transition, particularly in educational contexts, Anthropy made the game for a transgender audience.¹⁴⁵ Making the game available to a general audience represents a significant portion of Anthropy's income, but also a source of continuing emotional labor.¹⁴⁶

Ten years after *Passage* convinced many of the artistic potential of games as a medium, independent games have little trouble being perceived as serious, yet the terms of this seriousness privilege heteronormative concerns and marginalize queer games artists and their work. In 2013, Ian Bogost, who coined the term "serious games," argued that games should prioritize being "earnest" as opposed to simply working for social change. Leigh Alexander describes this shift in Bogost's thinking: "Maybe what we want are not "serious"

¹⁴⁴ Adrienne Shaw, *Gaming at the Edge*, 5.

¹⁴⁵ See Anthropy's interview in David Osit and Malika Zouhali-Worrall, "Games You Can't Win."

¹⁴⁶ Anna Anthropy, "Empathy Game."

games, but earnest games,' he reflects. 'Games that aren't just instrumental or opportunistic in their intentions.' For example, games like . . . *Dys4ia* were made to be played and to illuminate the subjects that their creators wanted to make games about."¹⁴⁷ In this context, *Dys4ia* gains value for its use of playful game mechanics ("made to be played"), but also for its emotional frankness (implied by the use of the term "earnestness"). This turn toward earnestness rather than social change has privileged the discussion of games in terms of how they tell stories about the creators' experiences and emotions over the discussion of queer games in terms of their radical and experimental mechanics and graphics. *Dys4ia* is thus portrayed as a story about Anthropy's hormone replacement therapy, rather than as an experiment in game mechanics, visual art, and game form that also works for social change by providing a resource to transgender audiences, and by highlighting the discrimination and pathologization of transgender people inside and outside the medical establishment. By framing *Dys4ia* in terms of "earnestness," critics seem to argue that queer artists in games are primarily useful for their ability to personally bring diversity to game spaces, thereby tokenizing queer artists in their own field. In this context, the discourse of empathy points to the emotional labor queer game artists must perform to bring diversity to games.

Haptic Aesthetics in *Curtain*: A Return to the Haptic Discussion of Affect

Curtain (Llaura Dreamfeel, 2014) uses pixilated and impressionistic graphics hardly

¹⁴⁷ Leigh Alexander, "Bogost: Let's Make Earnest Games Not Serious Games," *Gamasutra* 17 June 2013, accessed 20 September 2016, gamasutra.com/view/news/194490/Bogost_Lets_make_earnest_games_not_serious_games.php.

reminiscent of the “immersive” game worlds attributed to AAA role-playing games,¹⁴⁸ yet to some, the game is so uncomfortably immersive as to be unplayable. A 3-D environmental exploration game in the style of *Gone Home* and *Proteus* (David Kanaga, Ed Key, 2013),¹⁴⁹ *Curtain* represents the abusive relationship between Glasgow bandmates Ally and Kacy by asking the player to click on the various indistinct objects populating their two-bedroom apartment. As the player guides Ally’s first-person viewpoint around this limited environment and interacts with objects, two dialog boxes repeatedly appear. One, at the top, represents Ally’s thoughts, rendered in the second-person “you” common to exploration games. The second box, blue, at the bottom of the screen, is Kaci’s running commentary on the player’s actions. When the player clicks away from an object, Ally’s thoughts disappear from the top of the screen, but Kaci’s blue dialog box remains, displaying her most recent (often dismissive or cutting) comment. As the player explores Ally and Kaci’s apartment on the night their band plays their most successful gig, it becomes clear that Kaci is not merely teasing Ally, but isolating her from her friends and family, threatening to get rid of her cat, dismissing her interest in writing comics, and breaking objects around the apartment. Most ominously, Kaci is invisible yet ever-present, commenting every time the player character thinks or interacts, and sometimes when she is just walking around. Like ghosts, neither Ally

¹⁴⁸ For a representative fan discussion of “immersion,” see SSmrao “What is the Most Immersive Game You Have Ever Played?” */r/Games*, Archived post. 29 April 2014, accessed 20 September 2016, reddit.com/r/Games/comments/24ank6/what_is_the_most_immersive_game_you_have_ever/.

¹⁴⁹ This genre of game is sometimes called a “walking simulator,” or even “first person feels,” for the way in which these games lead the player to discover an emotional narrative or an emotionally affecting environment. See Bob Mackey, “The Gateway Guide to Walking Simulators,” *US Gamer* 22 July 2015, accessed 20 September 2016, <http://www.usgamer.net/articles/the-gateway-guide-to-walking-simulators>.

nor Kaci appear on screen; even when the player looks in the mirror, there is nothing to see.

When the player has explored every element of the apartment, dialog boxes make it clear that Kaci forces sexual contact. Ally wakes up feeling sick, wanting to take a shower. Did Kaci rape her? The game portrays much through omission, forgoing the visual representation of violence and sex stereotypically associated with many videogame genres, and opting instead for a cinematic fade to black. In the shower, one of the only places the player character can be alone, the player discovers a curtain of water. In a twist on a common videogame trope,¹⁵⁰ behind this falling water is a long secret passageway, which leads to the even darker future of the relationship. By navigating across this curtain, between the relationship's future and its past, the player helps Ally escape Kaci, despite lost connections with friends, relatives, and community.

Curtain's pulsing and repetitive electronic soundtrack complements its graphics, which slide back and forth with the player's viewpoint, wavering even when the player character "camera" remains still. This use of digital graphics to sway the entire screen has a long history of representing player character intoxication in games, most famously in stage 1-7 of *Super Mario World 2: Yoshi's Island* ("Touch Fuzzy, Get Dizzy"). Though Ally and Kaci do drink too much—"There are some beers on the table. There are always beers on the table," Ally thinks when the player clicks a pair of tall rectangles—the sense of mental foginess portrayed in *Curtain* is far more pervasive. The game represents memory, specifically the memory of trauma, in an impressionistic style that distances players from the

¹⁵⁰ The Legend of Zelda series commonly features secret rooms behind waterfalls, for example. This trope first appears in *The Legend of Zelda* (Nintendo America, 1987), in which an Old Man tells the player character Link, "Walk into the waterfall." In subsequent installments of the series, waterfalls are sometimes less obviously marked, but experienced players know to check behind them.

confessional mode attributed to the queer games scene discussed above. While games challenging “empathy” have engaged with the terminology used to describe queer games, *Curtain* challenges the gaze of the player on queer experience, asking players to approach issues of trauma through the lens of memory, as a person with similar experience.

Laura U. Marks developed her framework of *haptic visuality* to describe the very strategies used in *Curtain*. As Marks argues, the affordances of digital art may be used to portray affect, memory, and trauma interculturally, through an aesthetic that refuses the distance necessary for observation, examination, and objectification, and instead embraces closeness, texture, and indistinct, even sometimes illegible, imagery. These haptic artworks “open up visuality along the continua of the distant and the embodied, and the optical and the haptic.”¹⁵¹ Drawing from an analysis of *Seeing is Believing* (Shauna Beharry, Canada, 1991), Marks argues, “senses that are closer to the body, like the sense of touch, are capable of storing powerful memories that are lost to the visual.”¹⁵² For Marks, haptic visuality is a way of accessing viewers’ embodied perceptions that values “mimetic knowledge” (151), intersubjectivity between viewer and film, “embodied *blocks* to perception” such as confinement, rape, trauma, and suppressed political resistance (152), cultural context, and “sense memories” related to distance and longing, especially for the family and the homeland (153). “Optical visuality depends on a separation between the viewing subject and the object,” Marks writes. “Haptic looking tends to move over the surface of its object rather than to plunge into illusionistic depth, not to distinguish form so much as to discern texture.

¹⁵¹ Marks, *The Skin of the Film: Intercultural Cinema, Embodiment, and the Senses*, 132.

¹⁵² Marks, *The Skin of the Film*, 130.

It is more inclined to move than to focus, more inclined to graze than to gaze.”¹⁵³

Curtain's use of abstraction and pixilated texture, as well as its ever-moving graphics, certainly lead players to engage with the surface of its images, yet to advance the game's narrative, the player must refuse this surface interaction with *Curtain*, finding ways to move through the environment in depth. Marks identifies common aesthetic strategies of haptic visuality, including changes in focus, under- or overexposure, graininess, low contrast, low pixel density, and electronic manipulability, all of which *Curtain* employs to mesmerize and disorient the player.¹⁵⁴ One of the key mechanics of *Curtain* is the tension between experiencing these haptic visuals and looking through them. As in the shower, when the player must see the hallway behind the curtain of water, players must look past the curtain of the game itself to attempt to navigate and make sense of the environment.

Haptic visuality also describes an aesthetic critique by marginalized filmmakers of the terms of visuality, narrative, and cultural difference. *The Skin of the Film* relates a trend in art and scholarship of exploring the tactile, and epistemologies of touch, to the ways in which intercultural artists in film and video use these media to critique visuality itself, refusing viewers the ability to passively absorb information in familiar narrative or ethnographic modes.¹⁵⁵ Marks writes:

Fundamentally, haptic images refuse visual plenitude. Thus they . . . prevent an easy connection to narrative, instead encouraging the viewer to engage with the image through memory. . . . haptic images can protect the viewer from the image, or the

¹⁵³ Marks, *The Skin of the Film*, 162.

¹⁵⁴ Marks, *The Skin of the Film*, 172–76.

¹⁵⁵ Marks, *The Skin of the Film*, 133.

image from the viewer. It is fairly common for experimental ethnographic films and videos to use haptic images to counter viewers' expectations of informative or exotic visual spectacle.¹⁵⁶

This strategy is particularly relevant for *Curtain*'s place within the recent history of queer game artists, critics, and scholars. As described above, the queer games movement faced a persistent ethnographic gaze that focused on the biography and embodiment of game authors and their contributions to audience education, while interpreting their works as personal confession, and describing player-game intersubjectivity as an artifact of the empathy privileged gamers may feel with the experiences of marginalized Others. Moreover, as Adrienne Shaw argues, many queer game fans disidentify with queer characters because they fail to see these characters as representations of themselves. In Shaw's interview sample of queer gamers, "it seemed like they connected more with texts that were affectively familiar, even if the identities of the characters were radically different from theirs."¹⁵⁷

Curtain represents a wave of queer games, by artists within and outside the queer games scene, that use aesthetic, narrative, and mechanical strategies to deliberately refuse players full knowledge of their authors' identities and experiences. These games engage players at the level of affect, asking them to bring their own memories, identities, and embodiments to the game in a more intersubjective manner reminiscent of the movement of intercultural films Marks describes. In so doing, these games hail queer players not only through the representation of queer characters and queer narratives, but through affective familiarity, representing experiences players may relate to, or fantasies players may share. In

¹⁵⁶ Laura U. Marks. *The Skin of the Film*, p. 177.

¹⁵⁷ Adrienne Shaw, *Gaming at the Edge*, 78.

this way, queer games retain the specificity, complexity, and unknowability of their individual narratives, while inviting players to relate these narratives to their own lives, as tools for learning about others and about themselves. This haptic intersubjectivity differs from the discourse of empathy games because it is mutual: queer games with this haptic aesthetic provide open-ended imagery and narratives which players are invited to fill with their own experiences and interpretations, exploring their own lives and memories in conversation with a game, rather than touring the lives and struggles of others.

If *Curtain* encourages players to engage with its content through memory, which memories does it access? In many cases, *Curtain* engages painful memories of abusive relationships, which queer people, particularly queer and transgender women and nonbinary people, may be more likely to experience than their straight and cisgender counterparts.¹⁵⁸ This may be why some among the queer and trans gamers and game designers attending QGCon 2014 had trouble playing *Curtain* to what hard-core gamers might designate as “completion.” That is to say, playing the game multiple times, exploring all its available actions and discovering its narrative “ending.” In playing to completion, gamers must be open to exploring memories of personal trauma they may try to leave in the past. The itch.io page for *Curtain* includes a “content warning”—omnipresent in online spaces, particularly queer-coded ones—for “non-explicit themes of abuse,” so consumers are prepared to revisit

¹⁵⁸ Press reports have recently popularized studies of intimate partner violence and sexual and gender identity which show that queer people may experience more physical abuse from partners during their lifetime than straight people. Bisexual and transgender people report the highest incidence of domestic partner violence, while straight cisgender men report the lowest incidence. See JD Glass, “2 Studies that Prove Domestic Violence is an LGBT Issue,” *The Advocate* 4 September 2014, accessed 20 September 2016, advocate.com/crime/2014/09/04/2-studies-prove-domestic-violence-lgbt-issue.

these memories, if they so choose.¹⁵⁹ Nevertheless, *Curtain* offers a profound embodied and affective experience, including some affects often associated with colloquial experiences of “being triggered,” such as dizziness, lightheadedness, and a sensation of floating slightly above the body.¹⁶⁰

In a 2014 *In Media Res* piece,¹⁶¹ I characterized this experience in terms of “emotional realism,” a term that resonates with the game’s use of aesthetics to explore and perhaps revive experiences of sexual trauma.¹⁶² This choice of the word “realism” could be considered controversial, however, because of the history of representation and difference in videogames discussed briefly above. As Adrienne Shaw summarizes, both “fantasy” and “realism” have been used as excuses to exclude certain representations, yet “realism” is also the most common justification for providing even problematic diversity in mainstream games: “Arguments about both ‘good’ and ‘bad’ representation often rely upon realism. Bad

¹⁵⁹ DREAMFEEL X, “Curtain,” *Itch.io* 18 March 2016, accessed 20 September 2016, dreamfeel.itch.io/curtain.

¹⁶⁰ My position on the idea of the “trigger” and the “trigger warning” is complex. See Diana Pozo, “Trigger Warnings and the Porn Studies Classroom,” *Porn Studies* 2, nos. 2–3, 286–89, DOI: 10.1080/23268743.2015.1054683.

¹⁶¹ Diana Pozo, “Curtain: Queer Video Games, Identity, and Realism,” *In Media Res* 11 November 2014, accessed 20 September 2016, mediacommons.futureofthebook.org/imr/2014/11/11/curtain-queer-video-games-identity-and-realism.

¹⁶² Clarissa Smith and Feona Attwood discuss how anti-pornography feminism accesses traumatic memory in its appeal to “emotional truth,” rather than evidence-based analysis. See Smith and Attwood, “Emotional Truths and Thrilling Slide Shows: The Resurgence of Antiporn Feminism,” in *The Feminist Porn Book: The Politics of Producing Pleasure*, Tristan Taormino, Celine Parreñas Shimizu, Constance Penley, and Mireille Miller-Young, eds. (New York: The Feminist Press, 2013), 41–57.

representation is often justified using this frame.”¹⁶³

In an informal Twitter interview, LLaura Dreamfeel responds to the issue of realism by questioning my interpretation of the game as a one-way communication, arguing her game is less about “seeing oneself reflected” and more about “being able to see oneself in a new light.”¹⁶⁴ Dreamfeel writes she “didn’t want to impose myself [and] my view onto the player.” Instead, she argues, the game emphasizes what the player feels and brings to gameplay, that she wants to “give them space.”¹⁶⁵ Rather than telling players a story, Dreamfeel writes, “by respecting [the] player as a peer the creator/game is both close and distant, both listening and detached.”¹⁶⁶ Dreamfeel is familiar with the history of independent film and feminist film theorists; she uses a still of Maya Deren’s *Meshes of the Afternoon* (1943) as her profile picture. It is possible she created *Curtain* with Marks’s theory of haptic visuality in mind. This discussion of *Curtain* playing with closeness and distance, listening and detachment certainly recalls Marks’s discussion of the mournfulness of haptic visuality, the distance between the visual haptic and the experience of touching a distant loved one.¹⁶⁷ *Curtain* not only plays with the distance and closeness of player and game, player and author,

¹⁶³ Adrienne Shaw, *Gaming At the Edge*, 159.

¹⁶⁴ dreamfeelx, “@marip0zo @MC_IMR interesting! Seeing oneself reflected is important, but maybe much more so being able to see oneself in a new light,” tweet on 11 November 2014, 10:48 AM, twitter.com/dreamfeelx/status/532243497907396610.

¹⁶⁵ dreamfeelx, “@marip0zo @MC_IMR mmmMMm.. didn’t want to impose myself (& my view) onto the player. Important what they feel & bring to it. give them space,” tweet on 11 November 2014, 11:46 AM, twitter.com/dreamfeelx/status/532257995594682368.

¹⁶⁶ dreamfeelx, “@marip0zo @MC_IMR maybe by respecting player as a peer the creator/game is both close & distant, both listening and detached,” tweet on 11 November 2014, 11:46 AM, twitter.com/dreamfeelx/status/532258063420768258.

¹⁶⁷ Marks, *The Skin of the Film*, 192.

but it also helps players put distance between themselves and their own experiences, and to re-experience them in conversation with the game and the author.

The experience of recovering from trauma can often feel like a series of mental games: how could I have avoided this? How could I have reached the “best” ending? In *Curtain*, all roads lead to the same abrupt dismissal. As the player gazes into a blank mirror in their new home, to which Ally has escaped from the relationship with Kaci, a turquoise box at the bottom of the screen where Kaci’s dialog once appeared in blue taunts: “There’s no one there. Not anyone. You’re nobody. You don’t deserve to be. You’re nothing now.” The soundtrack blasts a punk anthem, and the screen fades to black. For the first time, the game mimics the sound of the main characters’ band, in an energetic departure from the rest of the game’s sound design. The text at the bottom of the screen also contradicts the events of the game. Ally is becoming the person the player has noticed she wants to be: she is writing comics, she has friends and/or family, she is independent. The voice of the game refuses the probable desires of the player for Ally to have a swift happy ending, as well as the assessment the player may have of Ally’s current situation. By refusing to end well, *Curtain* insists on its own point of view, and releases the player from their own memories.

Affective Resistance: Queer Game Design as Counterhaptic

Games like *Curtain* are affectively different from most games: they do not attempt to be fun, empowering, or even necessarily interactive. However, as Bonnie Ruberg argues, drawing on Jack Halberstam’s framework of the “queer art of failure” and Jesper Juul’s discussion of “the art of failing at games,” one way that games can be queer is by refusing the affective regime of dominant commercial games, which privileges “fun” as the central affective

conceit of gaming.¹⁶⁸ While queer fans may not agree that games should eschew fun—Adrienne Shaw’s study showed marginalized game fans prioritized “playfulness,” for example¹⁶⁹—Ruberg persuasively argues that games scholars and game designers should explore phenomenological challenges to the premise of fun game design as a site of queer resistance. Ruberg writes:

Today’s students of game studies are trained to analyze videogames on the level of “procedural rhetoric,” Ian Bogost’s term for the semiotics of a game’s interactive processes. What new insights could be uncovered by supplementing this structural approach with a phenomenological perspective—by analyzing games for their *affective* rhetoric: the language of the feelings they invoke, how they communicate emotions to their players, how designing affect is interwoven in the art of game design.¹⁷⁰

While game design textbooks frequently counsel students to prioritize fun, a positive affect associated with control, success, and seamlessness, Ruberg identifies several other important game affects for scholars to consider, including disappointment, annoyance, alarm, sadness, pain (by game design or player choice), and boredom (Ruberg argues *Mainichi* uses boredom to great effect).¹⁷¹ Ruberg’s arguments highlight how differences between film and

¹⁶⁸ Bonnie Ruberg, “No Fun: The Queer Potential of Video Games that Annoy, Anger, Disappoint, Sadden, and Hurt,” *QED: A Journal in LGBTQ Worldmaking* 2, no. 2 (Summer 2015): 108–24, DOI: 10.1353/qed.2015.0034. See also Jack Halberstam, *The Queer Art of Failure* (Durham, NC: Duke University Press, 2011); and Jesper Juul. *The Art of Failure: An Essay on the Pain of Playing Video Games* (Cambridge: MIT Press, 2013).

¹⁶⁹ Shaw, *Gaming at the Edge*, 219.

¹⁷⁰ Ruberg, “No Fun,” 111.

¹⁷¹ Ruberg, “No Fun,” 117-121.

videogames might produce different strategies for studying these media in terms of the haptic. Haptic visuality has proved so useful to film critics because film's status as a "visual medium" made its physical and affective effects on the body less immediately apparent to many critics. The contributions of Laura Marks and other phenomenological film scholars including Vivian Sobchack, Steven Shaviro, and Jennifer Barker helped to show how film's very visuality affected the sense of touch and the viewer's embodiment. Games, however, are known to affect the body. We touch their interfaces with our hands; we move controllers in space to control movement on screen; gaming cabinets may surround our bodies entirely, shaking and rocking us. Game interfaces use nearly every part of the player's physical body: hands to push buttons and push joysticks, feet to stomp pads below, hips to shift our weight on a platform, voices to sing on key, breath to blow into microphones, even sexual organs in game parodies and sexual hacks. Haptic technology has been used in the videogame and arcade machine industry and the science behind it can be traced to the 19th century.¹⁷² Unlike film, arcade games are generally understood to touch the physical body and affect the emotions. Console games use tactility as well: vibration is standard in console game controllers to represent a variety of narrative information, from the pull of a fish on a line to the pain of being hit by a bullet. When in the service of fun, videogames have little trouble using physical touch in a wide range of applications.

As Ruberg argues, affective range has been more troublesome for games. While physical touch has been standard in games, affective touch has been framed as problematic

¹⁷² David Parisi, *Touch Machines: An Archaeology of Haptic Interfacing*, PhD dissertation, New York University, 2008, ProQuest, accessed 20 September 2016, gradworks.umi.com/33/46/3346267.html.

for many years; in fact affective touch has been responsible for a number of well-known moral panics surrounding the medium. First, games have been targeted for creating the wrong affects: moral panics over the status of the first-person shooting game and other genres featuring violent conflict have historically focused on the idea that game players will be convinced to become murderers by the excessive, or insufficient, affect they feel enacting violence on virtual human targets. Second, games have been treated in terms of addiction because of their tendency to access the reward centers of the human brain: having too much fun playing games (digital or analog) has been linked to gambling addiction and pathological social isolation. Third, games are targeted or praised for their educational properties in part because they make learning fun and engaging: whether games teach elementary students about multiplication, or teach teens they should join the US Army and fight colonial wars overseas, the affective charge of games is said to help these lessons stick. In all these cases, the “fun” of games becomes problematic when attached to an inappropriate context. Yet games also teach gamers to ignore their affective response. As discussed above, gamers demonstrate their skill in part by being immune to the sensory “distractions” of games. If players are particularly skillful, Claus Pias argues, they may even become “a peripheral device” to the computer, no more affected by games than a server fielding and returning an IP package in the test program *Ping*.¹⁷³ The desire for ever-higher video resolution, ever-larger and more open worlds, ever-longer narratives, and ever-greater “immersion” in the “hard core” movement of AAA games that characterized the aughts responds to the desire by such seasoned players to be affected despite their “hardness,” to be physically surprised by something new.

¹⁷³ Claus Pias, “The Game Player’s Duty,” 173.

Devising the rubric of “empathy games” has been an attempt by journalists and scholars to describe the way videogames by queer artists use affect to touch players differently. Being attentive to game designers’ legitimate critiques of this discourse, how might scholars also address the affective aesthetics of queer games differently? Ruberg’s arguments about the value of pain, disappointment, boredom, and annoyance, among other “bad” affects in games criticism lay an important groundwork for thinking about the queer use of affect in games. I would like to add two *affective aesthetics* in queer games artists’ work to this list, by which I mean aesthetic categories that bring with them certain affects, that touch the body and emotions of players in certain ways. In particular, I would like to discuss *cuteness*, an aesthetic of care and closeness, and *consent*, an aesthetic of context that attributes self-determination to players, games, and game characters, and encourages players to feel differently about sex, sexuality, and pleasure. These affective aesthetics, along with others employed by queer game artists, represent a counterhaptic strategy, not only to the design regime of fun described by Ruberg, but to the privileging of physical body shocks over affective touch in console and arcade gaming.

Cuteness

“Cute” is a common aesthetic descriptor for videogames, yet the “hard core” gaming aesthetic of US games culture in the mid-aughts moved away from the cuteness of some arcade and early console games, particularly Japanese imports like Nintendo’s Mario and Zelda franchises. In the late aughts and 2010s, independent games, in their tendency to capitalize on the nostalgia and low production cost of 2D game design, have often adopted cuteness in their visual aesthetics. *Braid* and *Super Meat Boy* are two best-selling and

critically-acclaimed examples whose characters or graphics could be broadly described as “cute.” The cuteness of indie game design is also related to what Sianne Ngai identifies as the *cuteness of the avant-garde*.¹⁷⁴ The cute is one of three aesthetic categories Ngai posits as “best suited for grasping how aesthetic experience has been transformed by . . . late capitalism.”¹⁷⁵ Cuteness is an aspect of commodity culture that reflects our increasingly private society, as public space becomes less important than private space and the public-private of personal communication over electronic networks.¹⁷⁶ Ngai writes:

Revolving around the desire for an ever more intimate, ever more sensuous relation to objects already regarded as familiar and unthreatening, cuteness is not just an aestheticization but an eroticization of powerlessness, evoking tenderness for ‘small things’ but also, sometimes, a desire to belittle or diminish them further.¹⁷⁷

In this context, indie games such as *Braid* and *Super Meat Boy* can also be described as cute because of the ways in which paratextual content juxtaposes these games and their themes with the developers’ childhoods and private lives. *Indie Game, The Movie* uses childhood photographs of Edmund McMillen and voiceover interview to argue that McMillen made *Meat Boy* for his childhood self. The documentary also shows McMillen proposing to his wife on the stage of the Game Developers Conference in 2005, a moment that could be described as cute for its open expression of tenderness that injects domesticity into a public

¹⁷⁴ Sianne Ngai, “The Cuteness of the Avant-Garde,” In *Our Aesthetic Categories: Zany, Cute, Interesting*, 53–109.

¹⁷⁵ Sianne Ngai, *Our Aesthetic Categories*, 1.

¹⁷⁶ Sianne Ngai, *Our Aesthetic Categories*, 3.

¹⁷⁷ Sianne Ngai, *Our Aesthetic Categories*, 3.

space. Finally, indie games are cute in that they are often framed as a relatively powerless accessory to the “real” games industry of AAA hard core big budget blockbusters. Jonathan Blow and the developers of *Super Meat Boy* might be uncomfortable with the idea that their games are “merely” cute, yet queer games writers like Aevee Bee actively claim the cute as an aesthetic strategy to challenge the male- and masculine-dominance of the games industry.¹⁷⁸ Bee’s “Toward a Cutie Aesthetic,” an essay based on a talk Bee gave at The Lost Levels, an “unconference” loosely affiliated with the 2013 Game Developers’ Conference in San Francisco, CA, shows how cuteness is both queer and a challenge to exclusionary dynamics in game design and games culture.

First, cuteness is an answer to the tyranny of realism Shaw described as endemic to arguments over representation in games. Bee writes: “Cute graphics are the only aesthetic that can truly free you from the tyranny of reality. . . . cute is subversive. It alters and distorts and makes fun of reality. It’s dedicated not to visual fidelity but to emotional fidelity.”¹⁷⁹ As Shaw argued, reality and realism are discourses that have been used to justify exclusion and bad representation in videogames. Bee posits cuteness as a subversive challenge to this tyranny, replacing high-budget graphics with affective graphics, and low budgets that allow both for a plurality of voices and for more time to be spent on complex narrative and mechanical design. Cuteness can even be expressed without the use of graphics. Ngai’s argument that contemporary avant-garde poetry is surprisingly and pervasively cute points to

¹⁷⁸ Aevee Bee, “Towards a Cutie Aesthetic,” *Mammon Machine Blog* 27 September 2014, accessed 20 September 2016, www.mammonmachine.com/mammon-machine-central-routing/2014/9/27/towards-a-cutie-aesthetic-. Includes partial transcript of a talk from Lost Levels Unconference (Part of Game Developers Conference), San Francisco, CA, 2013.

¹⁷⁹ Aevee Bee, “Towards a Cutie Aesthetic.”

the ways in which Twitter and the textual game development platform Twine—two arenas for the development and dissemination of games art and criticism by a group of primarily transgender women—lend themselves to this cuteness.¹⁸⁰

Second, cuteness is the youthful “femme” answer to gaming’s (aging) patriarchal hypermasculinity. Bee writes, by using cute design: “We can show them what reality can look like if it was done *by cuties for cuties*, by people who don’t fit into the hypermasculine . . . wasteland on the showroom floor over there.”¹⁸¹ I use the term *femme* here not to indicate a sexual position within the history of butch and femme lesbian experience, but to designate a larger category of queer femininity, as it has been re-imagined outside female gender identity.¹⁸² Representing femme has been particularly important to trans women in game design because of the simultaneous exclusion of femininity by the games industry and cultural exclusion of trans women from dominant standards of femininity. Anna Anthropy’s *Be Witching* (2015), a tabletop roleplaying game in which players draw outfits for queer femme witches competing to be crowned “witch queen,” argues for the inherent femme-ness of games by drawing on a variety of femme game histories, from analog and digital paper dolls, to the competitive ball culture developed by queer and trans people of color in New

¹⁸⁰ Ngai argues that contemporary avant-garde poetry is unexpectedly cute, because of its “smallness,” aggressive copyright protection applied to it, and the “tenderness” attributed to poetry as a result. See Sianne Ngai, *Our Aesthetic Categories*, 4. Twine can be understood as a subgenre of this cute avant-garde poetry: Merritt Kopas positions Twine “stories” within contemporary literature, rather than simply within contemporary games, in *Videogames for Humans*. See Kopas, “Introduction.”

¹⁸¹ Aevee Bee, “Towards a Cutie Aesthetic.”

¹⁸² See, for example, Del LaGrace Volcano and Ulrika Dahl. *Femmes of Power: Exploding Queer Femininities*. London: Serpent’s Tail, 2008.

York City, most famously represented in the film *Paris is Burning* (dir. Jennie Livingston, US, 1990).¹⁸³

Third, cuteness models the inclusivity queer games strives for. Games culture, like much of white supremacist, hetero- and cisnormative patriarchal society, has been notoriously exclusionary, acting out violently against difference. However, as Ngai argues, cuteness is contagiously inclusive. In the manner of other “body genres,” “the admirer of the cute puppy or baby often ends up unconsciously emulating that object’s infantile qualities in the language of her aesthetic appraisal.”¹⁸⁴ Cuteness does not require a particular embodiment or identity for inclusion: its mimetic quality makes affective appreciation of cuteness instantly transform into the admirer’s own cuteness. For this reason, cuteness is a productive category for imagining alternate standards of sexual value for queer people, in particular transgender and genderqueer communities. In order to avoid gendering terms, it has become common for queer people to use the term “cuties” to refer to attractive people, or dating partners. Bee quotes Patricia Hernandez describing how this phenomenon became popular on Twitter:

At first it was this kind of amusing thing like, oh hey, there’s a new meme in my friends circle. And then it was like, hey, if everyone is calling everyone else a cutie I can do the same and maybe they won’t catch on that I have a major crush on them WE’RE JUST ALL CUTIES, HAHA. And THEN, somehow, it became kind of like

¹⁸³ Anna Anthropy, “Be Witching,” *Itch.io* 27 April 2015, accessed 20 September 2016, w.itch.io/be-witching.

¹⁸⁴ Sianne Ngai, *Our Aesthetic Categories*, 3.

an identification thing? Like, oh, yeah [I don't know] how to define my gender/identity but sure I will be cool with cutie this can Be A Thing.¹⁸⁵

Bee concludes, “the idea is you don't have to identify your gender or identity or body type: you can just be cute. . . . cutie is way to say ‘you're attractive to me and others in a way that our language doesn't have precise wording for because it deliberately excludes and shames and punishes people for looking like you do, but I value you and think you're neat!’”¹⁸⁶ In this way, cuteness becomes a way of identifying someone as an erotic commodity without gendering them and without making reference to existing beauty standards, a particularly useful tool for genderqueer, genderfluid, and transgender people.

Eva Problems's Twine game *SABBAT* uses the language of cuteness to smooth over a game opening that asks the player to identify their genitals (for future use when the genitals are transformed by a satanic ritual). At first the game simply presents a text interface:

“couple of questions okay / first thing first witchdumpling what's in your drawers / **vagina** / **penis** / **what's it to ya**”.¹⁸⁷ In her playthrough of *SABBAT: Director's Cut for Videogames for Humans*, novelist Imogen Binnie finds this disconcerting: “Of course the first thing it does is to ask me what's in my pants, meaning it wants to know about my junk—or even my theoretical player character junk, right, I get it—and makes me totally hate this game. Fuck

¹⁸⁵ @xpatriciah, “What is your interpretation of cutie theory philosophy—at first it was this kind of amusing thing like, oh hey. . . .” *Twitter* 10 April 2013, Tweet at 1:03 AM PST, twitter.com/xpatriciah/status/321896325316759552. Quoted in Aevee Bee, “Towards a Cutie Aesthetic.”

¹⁸⁶ Aevee Bee, “Towards a Cutie Aesthetic.”

¹⁸⁷ In *Videogames for Humans*, choices in Twine narratives are represented with boldface. I have added slashes to indicate line breaks to preserve conciseness and continuity in the text. See Kopas. “Introduction.”

this game!”¹⁸⁸ Impertinent questions about private parts are a recurring feature of transgender people’s oppression, including trans people in the public eye like Binnie. However, SABBAT works to make this exchange cute: first, by the use of the non-gendered yet playfully infantilizing term “witchdumpling” to address the player, second, by offering a choice to cheekily deny a response, then in its response to that very answer (“**what’s it to ya**”), which Binnie chooses, “>what’s it to ya”. The game responds: “You got some sweet junk there, cutie.” Binnie writes, “*SABBAT: Director’s Cut* compliments my junk anyway! I guess that is nice. I don’t want to talk about my junk with you any more, though, game. Leave me alone.”¹⁸⁹ This exchange communicates how disempowering and sexualizing it can be to have one’s genitals constantly questioned in public, yet does so through the aesthetic mode of the cute. In this way, the game may create positive affect, or at least minimize negative affect, for oppressed players while simultaneously addressing the terms of their oppression.

Games scholar Lucas Goulart argues of the 2015 UC Berkeley Queerness and Games Workshop that students pursued an “ethics of cuteness” in their game design: in particular when representing painful topics, students strove to use cuteness to counter this difficult subject matter.¹⁹⁰ Drawing on this argument and Aevee Bee’s assertion that cuteness fights the “tyranny of reality,” as well as Ngai’s arguments about how cuteness relates to

¹⁸⁸ Eva Problems and Imogen Binnie, “SABBAT by Eva Problems Played by Imogen Binnie,” *Videogames for Humans: Twine Authors in Conversation*, ed. Merritt Kopas (San Francisco: Instar Books, 2015), 59.

¹⁸⁹ Eva Problems and Imogen Binnie. “SABBAT by Eva Problems Played by Imogen Binnie,” 59.

¹⁹⁰ Lucas Goulart, personal conversation with the author, Oakland, CA, 4 December 2015.

commodification, eroticization, helplessness, and violence, it becomes clear that cuteness is an aesthetic mode that is particularly useful for communicating feminized forms of oppression, such as that of transgender women and other queer femme subjects. Cuteness not only counters oppressive reality, but does so by tempering the negative affect associated with talking about it, particularly for those to whom such oppressive reality is affectively familiar.

Consent

A term borrowed from ethical kink culture, consent is another aesthetic mode of negotiating player participation in profoundly affecting game experiences. In her discussion of “empathy games,” Mattie Brice argues that kink culture may be a more productive way for designers and critics to think about how empathy and intersubjectivity work in game design.¹⁹¹ Brice writes, “What separates kinky and vanilla sex for me is the active recognition of consent. . . . Consent is the process where you find out exactly what each other wants before you play, and acknowledgement of what you definitely don’t want to happen.”¹⁹² In ethical kink contexts, partners have detailed and explicit discussions about what will happen in a “scene” before any activity begins. To put this in game terms, kink play partners not only know the rules of the game they are about to play, they also know most of the narrative of the game, as well as the characters, the setting, the equipment, the items, and the uses of these items. Aspects of this style of explicit consent are present in contemporary culture in modes like the content warning, which allows for a consensual relationship between author and user by

¹⁹¹ Mattie Brice, “Play and Be Real About It—What Games Could Learn from Kink,” *Alternate Ending* 31 July 2014, accessed 20 September 2016, mattiebrice.com/play-and-be-real-about-it-what-games-could-learn-from-kink/.

¹⁹² Mattie Brice, “Play and Be Real About It.”

giving users context they need to decide whether they will interact with content, and how they will do so. However, most commercial media, including videogames, are not incentivized to provide this type of information. As Brice writes, providing context may be seen to “spoil” commercial games:

Videogames tend to obfuscate the effect they will have on the player because of a perceived importance of content and entertainment value. If everyone knew exactly everything about the game and how it works, it would interfere with the typical model of selling games, where PR hypes up products and players go in trusting they will have a good experience. This does not allow for the cycle of wielding and receiving play between designer/game and player. We only have instrumentalized fun in mainstream games because context is hard to sell.¹⁹³

Here, Brice argues that “fun” is a substitute for contextualized consent in games (as genre is in film culture). Because players trust that companies will give them a “good experience,” defined in terms of fun affect, game companies may decontextualize their works, keeping their narrative and intended effects largely secret. If games were to be more rigorously consensual, Brice argues, fun would no longer be as important, and games could more safely explore a wider range of pleasant and unpleasant affects.

Consent is of particular importance to the representation of sexuality in games. However, game mechanics used to represent sexuality in game worlds often undermine consent. Robert Yang’s *Hurt Me Plenty* is one in a series of sex games that critique the mechanics of sex and dating in games like BioWare’s *Dragon Age* franchise, where sexual cut scenes are the culmination of a series of gift exchanges and puzzle-like dialogue trees.

¹⁹³ Mattie Brice, “Play and Be Real About It.”

These games are both sexy and abstract, referencing the history of film as much as the mechanics and aesthetics of videogames. In *Succulent* (2015), an “interactive music video,” the player controls a popsicle going in and out of a man’s mouth to a trippy climax; in *Stick Shift* (2016), an “autoerotic night-driving game,” the player decides when to shift gears of a car, with each shift enhancing the seeming arousal of the male driver. These games have the lush sparseness of a hallucination, daydream, or fantasy; they are erotic in metaphorical ways, with hallucinogenic graphics and soundtracks that immerse the player in an aesthetically pleasing environment where they have little control. *Hurt Me Plenty* is more directly representational, more concerned with the control the player has over the progress of the fantasy, and more engaged in a critique of romance and sex scene mechanics in dominant game design. In a discussion of how this spanking simulation game contrasts with RPG romances, Yang argues:

Players understand these romances as puzzles to be solved where sex is the reward—and the idea that sex is a puzzle reward feeds directly into a . . . culture built on manipulation and perceived entitlement to bodies. . . . sex must be more than a node, it should be simulated as a complex system in itself. Sex must not be some sort of reward or foregone conclusion. What if we represented sex in games as an on-going process?¹⁹⁴

Many independent game designers have used games to explore how sex might be simulated as a process, but these independent sex games may prioritize fun and humor over modeling

¹⁹⁴ Robert Yang, “Notes on Sex, Consent, and Intimacy in Games,” *Radiator Design Blog* 27 December 2014, accessed 20 September 2016, blog.radiator.debaacle.us/2014/12/notes-on-sex-consent-and-intimacy-in.html. Adapted from a talk given at NYU Poly School of Engineering, New York, NY, 18 December 2014.

consensual sexuality. Molleindustria's 2003 *Orgasm Simulator* and 2004 *Queer Power* both model sexuality as a competition between partners over real or simulated pleasure, for example. In *Orgasm Simulator*, the player matches moans to the grunts of their partner to keep him from realizing their pleasure is simulated; in *Queer Power*, players cycle through different embodiments to provide or deny their opponent/partner's preferred genitals, as reaching orgasm ends the game. These humorous competitive models of sexuality expand upon and parody the expansive genre of casual pornographic games on sites like HornyGamer, which also act as advertising platforms for more complex pay-to-play adult games. Moments of negotiating consent are either excluded from the narrative of these games, or dealt with in a brief dialog tree at the opening.

Games may have difficulty representing consent because consent interferes with the way technology relates to human users. Yang writes, "Software has no rights in itself, human users can always turn off a machine or delete a program. . . . An AI cannot quit playing, nor protest when you begin reloading savegames to achieve optimal outcomes."¹⁹⁵ Moreover, human users are not offered consent in our relationships with technology corporations: "technology is supposed to be painless, yet our relationship with technology is incredibly dysfunctional and abusive. We are coerced into signing EULAs [End User License Agreements], false forms of consent designed to protect tech vendors instead of users; we cannot re-negotiate these terms with tech."¹⁹⁶ In contrast to these realities of technology culture, Yang identifies a list of games addressing consent, many of which also represent kink: *Realistic Kissing Simulator* (Jimmy Andrews and Loren Schmidt, 2014), *Consensual*

¹⁹⁵ Robert Yang, "Notes on Sex, Consent, and Intimacy in Games."

¹⁹⁶ Robert Yang, "Notes on Sex, Consent, and Intimacy in Games."

Torture Simulator (Merritt Kopas, 2013), *Encyclopedia Fuckme and the Case of the Vanishing Entrée* (Anna Anthropy, 2011), and the card game *Consentacle* (Naomi Clark, 2014).

Hurt Me Plenty adds to this list by modeling sexuality in the three stages proposed by Brice: Consent, Scene, and Aftercare.¹⁹⁷ Notably, Yang’s game also employs a gestural interface—the Leap Motion Controller—to simulate hand shaking (consent), spanking (scene), and back rubbing (aftercare). Each is a simple motion: up and down to shake hands, side-to-side in greater and lesser intensity for spanking, and a circular motion to rub your partner’s shoulder once the scene is done. By positioning the player as a dominant in the scene, *Hurt Me Plenty* gives unprecedented agency and negotiating power to its submissive AI. In particular, Yang uses an “energy cooldown timer”—a technique usually employed by mobile games to extract money from players—to model the submissive’s reluctance to play again if the player violates their consent. Yang writes:

The game should, ideally, refuse to play with you ever again, when you violate negotiated boundaries. . . . This game is best played in public settings, where the occasional player will . . . violate boundaries, thus locking out the game for any future players/onlookers at the event. It manifests one reason for the divide between BDSM and kink communities, where kink focuses on sex as a matter of social justice and human rights. Abuse doesn’t just hurt an individual, it also hurts a community and makes it less safe of a place.¹⁹⁸

¹⁹⁷ Mattie Brice, “Play and Be Real About It.”

¹⁹⁸ Robert Yang, “Notes on Sex, Consent, and Intimacy in Games.”

Consent is an affective aesthetic in that it structures affects surrounding sexuality, community, and communication. Controlling and communicating context allows for the exploration of affects usually considered bad or unpleasant, rather than prioritizing the fun of some.

Playing *Hurt Me Plenty* creates in the user an exquisite awareness of their own movements and emotions, and a sense of observing even the tiniest details of the 3-D rendered submissive partner. Anxious to please the game, a player may at first feel crushed in the aftercare session: when I first played, my partner hesitantly said I was “ok,” and suggested I might be new to spanking! However, with multiple scenes, it is possible to become more skillful and less hesitant. As in a live scene of spanking, the player must gauge the submissive’s vocalizations and body response: Is the skin pink? Red? Is the submissive slumping over or panting? The game uses a gestural interface, but playing touches users less in the hand than in the entire body, through creating subtle and intimate affective responses to the computer. This sensation is not exactly fun in the way that many games are fun, but it can become enjoyable in a different way. As Ruberg writes, “Fun as a monolithic principle silences the voices of marginalized gamers and promotes reactionary, territorial behavior from within privileged spaces of the games community. . . . The spirit of no-fun is the spirit of alternatives, of disruptions, of difference.”¹⁹⁹ *Undertale*, the unintuitive hit discussed in the opening of this chapter, uses both cuteness and consent, bringing these affective aesthetics to a broader base of players. However, it also gives players a choice to engage or refuse these alternative gameplay dynamics. *Undertale* does not allow players to make these choices without consequence. Instead, as in *Hurt Me Plenty*, the game and its characters

¹⁹⁹ Bonnie Ruberg, “No Fun,” 115.

confront the player with their actions, and make assumptions about the player's motives. The following discussion of *Undertale* asks how the game's use of cuteness and consent dynamics relates to the queer affective aesthetics discussed here. What clues can *Undertale* give scholars about the ways in which queer affective aesthetics are being taken up in games culture more broadly?

Cuteness and Consent in *Undertale*

The opening of *Undertale* seems very cute at first. After providing a name to the game, the androgynous humanoid player character appears in the middle of a bed of yellow flowers. Walk to the right and through a door, and you will be faced with a small yellow daisy alone in a circle of light. "Howdy!" The flower says, its face a cartoon smile. The flower begins to explain the game's mechanics (how things work "around here") in what appears to be a classic training sequence in the battle screen. A simple, repetitive electronic tune plays. In the battle screen, the player character appears as a small red heart on a pure black background. A portrait of Flowey in white appears at the top. "See that heart? That is your SOUL," Flowey says. "The very culmination of your being! / Your soul starts off weak, but can grow strong if you gain a lot of LV. / What's LV stand for? Why, LOVE, of course! / You want some LOVE, don't you? / Don't worry, I'll share some with you!" Flowey winks and sticks out his tongue, and some oval-shaped pellets appear around him. "Down here, LOVE is shared through... little white..." the flower narrows his eyes, "'friendliness pellets.'" Flowey sends the pellets your way, urging you to "get as many as you can!"

If the player rushes to grab the pellets, they will notice their life force draining. Flowey was never offering a tutorial on the game's mechanics; he was planning to attack the

player all along! The flower's face turns into a menacing grinning skull as the childish tune abruptly stops playing. In ominous shaking text and chilling silence, he says, "You idiot. In this world, it's kill or BE killed. Why would ANYONE pass up an opportunity like this?" Flowey's skull-like face twists into a small creepy smile. A ring of inescapable pellets surrounds the player's heart. In a large typeface different from any Flowey has used before, he says, "Die," and chuckles as the pellets close in. Suddenly, a fireball from screen right clears him away. A tall, goat-like monster in a priestly robe enters the battle screen as soft music plays. "What a terrible creature, torturing such a poor, innocent youth ... / Ah, do not be afraid my child." The goat woman, named Toriel, provides the game's second training sequence, but does so by offering the player little chance to discover the game environment and its puzzles on their own. Ostentatious arrows point to the switches the player must push. At the entrance to the ruins, there is a sign: "Only the fearless may proceed. Brave ones, foolish ones. Both walk not the middle road."

Flowey and Toriel present the mostly-binary narrative options offered by *Undertale*, the game's two philosophies from which the player must choose. Are videogames about a contest of skill and wit, where weak players perish under the tyranny of "kill or be killed," or should players be treated as innocent and frail, led easily through every challenge and encouraged not to engage in violence? Flowey could be seen as a caricature of the "hard core": in his final boss form, he appears as a badly Photoshopped pastiche of photographs reminiscent of aughts Flash videos like Anthony Scodary and Nico Benitez's 2004 "How to Kill a Mockingbird." Toriel's philosophy could similarly be seen as a caricature of independent games influenced by the queer games movement: feminine, soft, full of "feels,"

and relatively unchallenging. Throughout each path—called the “genocide” and “pacifist” routes by fans—characters in Undertale react to the player, critiquing their decisions.

This critique is more apparent in the genocide route: characters note that the player character seems unresponsive and strange, and urge the player to open up and make friends. Once it becomes clear that the player is an unrepentant murderer, characters start to challenge and rage against the player. Sans the skeleton threatens to kill the player for murdering his brother Papyrus. Undyne, the captain of the monster royal guard, despairs when she fails to protect her people from the player. While the pacifist route is full of random encounters with cute monsters, and upbeat music in every level, eventually no one appears to challenge the player in the genocide route. The soundtrack is an ominous semi-silence punctuated with echoing sound effects. Even Flowey starts to doubt the player towards the end of this path, realizing the player intends to kill him too, and finally begging for his life. Gamers must be very experienced at playing action games, particularly difficult indie genres like “bullet hell,” to progress through the difficult battles of the genocide route.

In order to complete the pacifist route, particularly in the first playthrough of the game, a gamer must be skilled at playing narrative games, particularly imported and independent visual novels and retro RPGs. To become a “true pacifist,” the player must befriend all the major “bosses” of the game by playing defensively, avoiding their attacks, and completing their dialog trees mid-battle. This is a twist on lengthy visual novels, often imported from Japan and Korea, and often depicting dating scenarios in high school settings. These games, called *otome* by fans after the Japanese term for games marketed to women, generally require the player to date all the possible characters before reaching the game’s “true ending,” or best ending for all the characters. In the pacifist route, the player must

befriend Alphys last, a dinosaur who is a serious otome fan and anime buff. The quest to befriend Alphys is similar to *Hatoful Boyfriend: A School of Hope and White Wings* (PigeoNation, Inc., 2011), an otome parody about a human main character who dates pigeons, quail, and doves in a high school for birds, in that it parodies the narrative trope of a “secret lab” which reveals crucial narrative information. The game’s combination of narrative and battle elements in a single turn-based fighting style is also reminiscent of the whimsical RPG *Mother 3* (Brownie Brown/HAL Laboratory, 2006) for the GameBoy Advance. Though the game was never officially released outside Japan, a 2008 English fan translation made *Mother 3* popular in Anglophone indie gaming circles. Because of the different skillsets required for the genocide and pacifist routes, the two versions of the game seem to be designed to speak to different segments of Anglophone independent videogame fandom, each presenting a different critique.

Along the way to *Undertale*’s True Pacifist ending, the player must confront several versions of Flowey. Each time, he taunts the player for wanting a happy ending, suggesting the player is forcing this perfection on the game world. Finally, the characters all become friends, the monsters are freed from their underground prison, two characters who were secretly interested in each other are dating. By playing determinedly, gamers can produce all these seemingly positive outcomes, and see them played out in a cut scene. However, during this “good ending,” Papyrus still speaks up to say that because his goals were not met, “this must be the worst possible ending!” A credits sequence depicts all the characters living their best lives above ground. If the player has previously completed the genocide route, all is still not well, however, as a “final scare” reveals the horrible truth about the player character. If the player has been a True Pacifist, keeping themself completely “pure and innocent,” as

Toriel imagines them to be, they may never want to replay the game. When a player returns to erase their True Pacifist ending, the reformed Flowey re-appears to beg the player not to reset the game and start over. Everyone is happy; why make things start from the sad point at which they began? The game world takes on a certain reality and agency. The player feels responsible to the characters, and may never try the genocide route. Watch a playthrough of the genocide route out of curiosity and Flowey still “sees” you, delivering this ominous line: “At least we’re better than those sickos that stand around and WATCH [us kill everyone]... / Those pathetic people that want to see it, but are too weak to do it themselves. / I bet someone like that’s watching right now, aren’t they...?” In this way, *Undertale* goes beyond the consensual accountability of *Hurt Me Plenty*. The game anticipates and judges the player’s actions. It taunts the player, and shocks the player with narrative and affective revelations, in sharp contrast to the idea of consent overtaking fun as a priority in game design. Moreover, it directly addresses the player. *Undertale* is no longer an example of role-playing as a player character different from the player’s self (their SOUL, even): instead, the game reads into the actions of the player character aspects of the player’s personality and motivations.

Moreover, *Undertale*’s cuteness certainly expresses messages about violence, difference, and oppression, but this cuteness is also represented as deliberately deceptive at times. Cuteness is not always used to express queer identity, or to challenge the hypermasculinity of dominant games culture: the mechanics and narrative of *Undertale* may be hyperfeminine or hypermasculine in the game’s own terms, depending on the choices of the player. While the game addresses trends in game design toward queer affective aesthetics and represents queer characters like the lesbian couple Alphys and Undyne, and the queer-

coded femme trash punks Bratty and Catty, it represents the queer-influenced and the hardcore as two poles of a gender binary, in which the player is challenged to take the middle road. That the player character, Frisk, is gendered nonbinary and called they and them by other characters may also express this aesthetics of “moderation.”

Ultimately, *Undertale*'s queer fandom is more important for queer games than its use of queer affective aesthetics. Its queer-coded monster characters have provoked overwhelmingly warm responses among queer and non-queer-identified fans, spurring a wave of fan art, blogs, and even a Tarot deck. The choice of pacifist, genocide, and completionism (playing all routes) reflects the diversity of a queer games fandom in which not all queer gamers like “queer games.” However, if scholars are looking for clues to the future of the queer games movement, *Undertale* is not altogether encouraging. As Kopas argued, the work of the queer games scene and the larger movement may be incorporated into the mainstream, but if *Undertale* is an early indication, this will be to enhance the reputation and affective range of games that ultimately posit queer games as a feminized, “easy,” and specialty (“immoderate”) subgenre. Queer games scholars must continue to assert our place at the forefront of game studies and games theory to avoid being similarly incorporated and marginalized.

Independent videogames are a haptic medium in that they use a variety of affects and affective aesthetics to touch the body and emotions of players. While videogames are largely understood to touch the physical body through interfaces and bodily measurement, and indie games are supposed to reveal personal truths about their authors, creating a direct “empathic” connection with game designers' experiences, the queer games movement represents an

avant garde challenge I describe as counterhaptic to this dominant mode of touching the body with games.

Struggles over the status of game affect take place in a medium where tactility is a common feature. Games with strong and subtle emotional impact have helped legitimate videogames as an artistic medium in part because this use of narrative and affect links games with the more established medium of film. In film, affect and narrative are accepted ways to touch the viewer. Direct appeals to the viewer's body have long been controversial in Hollywood, from the embodied affects of the "body genre," to the cyclical development and dismissal of different "4-D" cinema technologies including moving and vibrating theater seats. The following chapter shows how a reading of the place of cutaneous touch in Hollywood demonstrates the utility of haptic media as a framework for studying contemporary film exhibition.

Chapter 3. Hollywood v. Haptics: Cutaneous “Tinglers” and Other Touch-Based Exhibition Technologies

Increasingly, the tactic used by the MPAA that really can devastate your film is judgment not against specific content (blood, whatever) but against intensity itself.

—Wes Craven²⁰⁰

Andre Bazin’s “myth of total cinema”—a complete replication of reality encompassing all the senses—may have excited early inventors of cinematic processes, but it has also terrified mainstream Hollywood producers and fans.²⁰¹ Since the breakup of Classical Hollywood’s vertical integration model in the late 1940s and early 1950s, the U.S. film industry has struggled to remain dominant in the face of technological and artistic innovation from local and international competitors. In the 1950s, films explicitly bashed television, as in a scene from *All that Heaven Allows* (dir. Douglas Sirk, 1955) depicting television as an unattractive alternative to dating for single, widowed women. In the 1980s and 1990s, filmmakers answered competition from digital media and home video with a range of films across genres depicting video and cyberspace (sometimes conflated) as dangerous and threatening, with overstimulating pleasures best viewed at a distance and attempted by other people.

Hollywood films made their distaste for digital media most apparent by suggesting that computers could be used to have sex, and that this sex would be exploitative and violent.

²⁰⁰ Wes Craven, Quoted in Jon Lewis, *Hollywood v. Hard Core: How the Struggle Over Censorship Saved the Modern Film Industry* (New York: NYU Press, 2002), Kindle Edition, loc. 3515.

²⁰¹ André Bazin, “The Myth of Total Cinema,” In *What is Cinema? Volume 1*. Ed. and trans. Hugo Gray (Berkeley: University of California Press, 1967), 17–22.

While mid-20th century U.S. and European depictions of future technology and sexuality in films like *Barbarella* (dir. Roger Vadim, 1968), *THX 1138* (dir. George Lucas, 1971), *Sleeper* (dir. Woody Allen, 1973) and *Logan's Run* (dir. Michael Anderson, 1976) portray this future of sex as humorous and decadent, scenes of sexual violence are absent from these depictions. Even the “Excessive Machine” in *Barbarella*, used by villain Durand Durand (Milo O’Shea) in an attempt to “execute” Barbarella (Jane Fonda) with extreme sexual pleasure, proves ultimately ineffective as a weapon of violence; she enjoys the treatment and exhausts the machine’s power, destroying it. Some of the science fiction of the late 20th century repeats the comic tropes of the midcentury: *Demolition Man* (dir. Marco Brambilla, 1993) features a comical sex scene right out of *Barbarella*, in which Sylvester Stallone rejects sex with Sandra Bullock if it must take place through brainwave transmitters. This scene, like depictions of futuristic sex machines from the 1960s and 1970s, contrasts “future sex” with “real sex,” concluding it will not improve upon the “real thing.”

However, the cyberpunk cycle of American and European films of the 1990s also features a range of digital sexual disasters portrayed in a less comic vein, made possible by anxiety about the power of virtual sexuality to change reality. A man who watches a first-person sex scene in virtual reality in *Brainstorm* (dir. Douglas Trumbull, 1983) becomes unfit to work and is forced to retire; a scientist’s lust to bring a virtual woman to life leads him to unwittingly give physical form to a computer-generated serial killer in *Virtuosity*; and *Thomas in Love* (dir. Pierre Paul Renders, 2000) pictures cybersex as an unappealing fetish the agoraphobic main character pushes on a series of uninterested girlfriends. The trope of “a rape in cyberspace” also permeates this cycle, with rape often being equated to murder: *The Lawnmower Man* depicts virtual sex as an exciting digital “trip” that goes horribly wrong,

ending with the virtual rape and physical death of the initially consenting female partner; *Strange Days* (dir. Kathryn Bigelow, 1995) imagines that virtual reality might be used to stimulate pleasure and artificial consent in rape-murder victims; and tales of digital snuff from *Videodrome* (dir. David Cronenberg, 1983) to the less-celebrated *FearDotCom* (dir. William Malone, 2002) play on viewers' fears about the unknown origins of adult content accessed through media networks.²⁰² In these fantasies, unknowingly watching snuff videos changes the fabric of viewers' realities, leading them to their eventual deaths. As in *Cool World* (dir. Ralph Bakshi, 1992), where sex between humans and "toons" from a parallel universe destroys both worlds, sexuality in mixed reality is portrayed in cinema of the turn of the new millennium as dangerous and apocalyptic for participants, observers, and even bystanders. While the comedy of virtual sex in *Barbarella* derives from its difference from "real sex," the danger of virtual sex in these cautionary tales of virtual rape and sexual disaster is its imposing ability to change real sex, and reality itself, to mold and subvert the desires and intentions of its participants.

Even as Hollywood presented dystopian visions of bodily immersion in cyberspace and the dangerous sexuality it could unleash, press surrounding digital cinema praised Hollywood's digital abilities as amounting to a much better form of immersion. Following cinematographer and *Brainstorm* director Douglas Trumbull's claim that special effects would eventually be able to implant emotions and sensations into viewers' brains, Ariel Rogers argues that the 1990s was the site for a "a broader tendency in discourses on digital

²⁰² For a discussion of actual rape in cyberspace at this time, see Julian Dibbell, "A RAPE IN CYBERSPACE: How an Evil Clown, a Haitian Trickster Spirit, Two Wizards, and a Cast of Dozens Turned a Database Into a Society," *Village Voice* 23 December 1993, *JulianDibbell.com*, accessed 28 July 2015, juliandibbell.com/texts/bungle_vv.html.

cinema to imagine that it would, in the imminent future, reconfigure spectatorship as a transfer of information into consciousness.”²⁰³ Claims for digital spectatorship as a transfer of information and sensation into consciousness argued for the haptic and affective power of digital visual effects, as opposed to the more obviously interactive pleasures of web surfing or gaming. Rogers discusses the tactility attributed to digital effects like CGI through discussions of the sensuous details of fabric and skin, for example.²⁰⁴ However, technological advancement in theatrical exhibition developments from the 1950s to the present day have offered an entirely different set of sensuous cinematic pleasures, in the form of seats that move and vibrate, screens that surround the viewer in imagery, and 3-D systems that simulate objects flying out of these screens.

Creators, critics, and consumers have framed these developments as gimmicks, excessive outsiders to Hollywood available in special circumstances and on special occasions. However, the cyclical nature of technology production in this area, whereby new technologies are developed to take the place of gimmicks and failures that went before, suggests the existence of a powerful myth, like Bazin’s myth of total cinema, motivating successive technology hopefuls. In Chapter 4, which discusses the haptic media of cybersex and cutaneous touch from the perspective of the adult novelty and digital media industries, the desire for physical haptic interfaces to appear in movie theaters may be a part of what Vincent Mosco discusses as the *digital sublime*: the myth that each successive new technology will eventually bring about immense and unprecedented social change. Each new

²⁰³ Ariel Rogers, “‘You Don’t So Much Watch It as Download It’: Conceptualizations of Digital Spectatorship,” *Film History* 24, no. 2. (2012): 221–34, 222.

²⁰⁴ Rogers, “‘You Don’t So Much Watch It as Download It,” 229.

visual technology applied to cinema may be presented as “the ultimate experience,” as *Brainstorm* was called in its marketing materials. Seat technologies also advertise a kind of technological utopianism: “move the world,” reads the homepage for Canadian theater seat company D-BOX.²⁰⁵ Unlike digital visual effects, however, these moving seats are more often parodied by Hollywood than celebrated.

Hollywood and Cutaneous Theater Seat Technologies

Moving theater seat technologies are an example of cutaneous touch in media, as they rely on the production of direct skin sensation at the theater.²⁰⁶ Cutaneous touch has of course always been present in cinema: the texture of wooden, canvas, or velvet theater seats, and the sensation of popcorn crunching under feet are only two of many possible examples of cutaneous touch in the theater experience. However, the use of cutaneous touch as a narrative and aesthetic element of cinema is more rare. Despite, or perhaps because of, how it frames cutaneous touch as a gimmick, *The Tingler* (dir. William Castle, 1959) is still one of the best-known examples of theater seats employing cutaneous touch in a film’s narrative. Through a system of simple vibrating motors designed by Castle and Dona Holloway for Columbia Pictures and dubbed “Percepto,” *Tingler* “buzzed” audience members in time with the escape and attack of “the Tingler” itself, a centipede-like creature living in the human spine responsible for the famous spine-tingling sensations attributed to much horror cinema.

²⁰⁵ “D-BOX: Move the World,” *D-BOX Technologies, Inc.* 2015, accessed 21 September 2016, d-box.com/entertainment/.

²⁰⁶ “Cutaneous” is a term borrowed from perceptual psychology. See Yvette Hatwell. “Introduction: Touch and Cognition,” 2.

There have been many more instances of films employing cutaneous touch, however, many of which are still on the market. In June 2014, CNN show *The Lead with Jake Tapper* announced the opening of the “first 4-D theater” in Los Angeles.²⁰⁷ For the first time, the piece announced, viewers in the US will be able to experience South Korean company CJ 4DPlex’s moving theater seat technology, first introduced in Seoul in 2009. The 4DX system includes not just moving seats, but a “back shaker,” and a “leg tickler.” 4DX did not introduce the first moving theater seat to the US, however: D-BOX, a Canadian theater seat technology that can also be installed in the home, has been available at select locations across the US since 2009. In 2011, D-BOX attracted the attention of the late Roger Ebert, who fantasized it would constitute a “dismemberment of the traditional movie going experience,” despite being unable to experience it himself.²⁰⁸

At Contra Costa Stadium Theaters in Martinez, CA, I experienced D-BOX as more of a haptic and affective re-alignment of the movie experience in a showing of *Kingsman: The Secret Service* (dir. Matthew Vaughn, 2014). Movie violence is known to produce the odd sympathetic twinge in the body at the pain of an on-screen character, as Vivian Sobchack describes.²⁰⁹ However, *Kingsman*, a comic book adaptation and seeming tribute to the more comedic moments of the James Bond franchise, is not intended to arouse much of this feeling, as the violence depicted comes with emotional distance. In D-BOX, the film’s

²⁰⁷ Stephanie Elam, “First 4D Theater in U.S. Opens in Los Angeles,” *The Lead With Jake Tapper* 27 June 2014, accessed 30 July 2014, thelead.blogs.cnn.com/2014/06/27/first-4d-theater-in-u-s-opens-in-los-angeles/.

²⁰⁸ Roger Ebert, “It’s Going to Be a Bumpy Night,” *Roger Ebert’s Journal*, June 2, 2011, accessed November 11, 2013, rogerebert.com/rogers-journal/its-going-to-be-a-bumpy-night.

²⁰⁹ Vivian Sobchack, “What my Fingers Knew: The Cinesthetic Subject, or Vision in the Flesh.”

violence was much more apparent, however, as the seat would swing to follow the movement of a punch, kick, or knife, and vibrate in time with gunshots and explosions. This new layer of cutaneous and embodied sensation added meaning to the film in a kind of haptic semiotics, making the affective distance a parody such as *Kingsman* expects less likely. Instead, the film's focus on moments of violent contact, whether those being harmed were the villains or the main characters places more focus on the viewpoint of the villains in the film. The predictably Bond-like racial and sexual dynamics of the film—which depicts an all-white and almost all-male British secret society in a battle against a racially diverse and queer-coded set of American villains—takes center stage as the viewer concentrates on the destructiveness of the Kingsmen, rather than their Bond-like charisma. In the final sequence of the film, the villains' heads explode due to chips implanted in their brains by a technology startup tycoon (Samuel L. Jackson), to the tune of Tchaikovsky's "1912 Overture." This scene of gleeful destruction is meant to distance viewers from these villains, yet the vibration of the D-BOX seat encourages viewers to identify with the characters whose heads were exploding, leading to a less comic, and more disturbing, interpretation of the film. Moreover, if the viewer is unexperienced in D-BOX viewership, they may feel phantom movement and vibration for days after the film, reminding them of the embodied experience that accompanied *Kingsman*'s gleeful violence. Perhaps this D-BOX interpretation of *Kingsman* is more accurate than the film's dominant reading: the film depicts all-white mostly-male vigilantes seeking to "save" the world from racially and sexually diverse "villains." However, an oppositional or negotiated reading is made more salient by the seat's addition of a separate motion track that activates viewers' bodies and emotions in new ways.

D-BOX is relatively unique in the history of theater seat technologies in that it is not associated with film production: the seats, and their movement and vibration tracks, have been developed by a third party separate from the authorship of a film studio or director. The strangely re-aligned *Kingsman* experience described above was therefore made possible by the tension between the authorial intent or semiotic content of the film and that of the motion code, and the designer or designers who worked on the film for D-BOX. Moving theater seats associated in some way with the production of particular films have existed since the 1950s. Throughout the 1980s and 1990s, moving theater seats, or even moving theaters, were a familiar feature in theme park attractions, including Disney's *Captain EO* (dir. Francis Ford Coppola, 1986) and *Star Tours* (1987), as well as Universal's *Back to the Future: The Ride* (1991). Ridefilm, a subsidiary corporation of IMAX, produced specialty immersive theaters for Las Vegas hotels and other locations throughout this period.²¹⁰ These technologies struggled to gain respect in the film industry, as demonstrated in a 1993 *Variety Weekly* article. Noting technical difficulties and a lack of promised celebrities at the premiere of a series of Ridefilms at the Luxor in Las Vegas, *Variety* called the event "star-stunted."²¹¹

Another vibration technology that earned dubious looks from the trade press was the 1970s "Sensurround" (MCA/Universal), a sound technology that used low-frequency "rumbles" to make viewers feel "unnerving vibrations" in films like 1974's *Earthquake* (dir.

²¹⁰ As of 2014, a Ridefilm theater appeared to still be open at Moody Gardens, a Galveston, TX theme park. See Moody Gardens, "What's Showing at the Ridefilm Theater!" *Moody Gardens Blog*, February 6, 2013, accessed July 31 2014. blog.moodygardens.com/tag/ridefilm-theater/.

²¹¹ Buzz, "Crapping Out," *Variety Weekly*, 25 October 1993.

Mark Robson).²¹² One writer for *Films and Filming* hated Sensurround so much they waxed nostalgic for the gimmick films of an earlier era, writing that Sensurround “makes the strange experiences of the late fifties seem quite tame by comparison (what ever did happen to Emergo?),”²¹³ referencing a gimmick used by William Castle to promote his 1959 Vincent Price thriller, *The House on Haunted Hill*. Emergo promised thrills flying right into the audience, but delivered a plastic skeleton hanging from a wire over audiences’ heads, a flourish of technological simplicity that helped the film, its gimmick, and its director attain cult status. *Tingler* remains the most well-known of William Castle’s 1950s gimmick films, having attracted some academic attention and long-lasting fan interest. Reviewers and audience members also noted the film at the time of its release: while some Hollywood writers decried the film’s low-budget aesthetics,²¹⁴ others heralded Percepto as the arrival of the “feelies” promised by Aldous Huxley in *Brave New World*.²¹⁵ John Waters remembers *Tingler* as one of the fondest movie-going experiences of his youth, crediting the film’s Percepto gimmick with teaching him about Art in the cinema.²¹⁶ The film has inspired

²¹² Lee Baupre, “Lang, Robson Want Audiences to ‘Feel’ as Well as See ‘Earthquake,’” *Variety Daily*, March 18, 1974.

²¹³ in camera, “Quakerama,” *Films and Filming* (January 1975).

²¹⁴ Philip K. Scheuer, “‘Tingler’ Gimmick Picture,” *Los Angeles Times*, October 29 1959.

²¹⁵ Dick Williams, “Feelies Are Here; Smellies Are Coming,” *Mirror-News*, October 28 1959.

²¹⁶ John Waters, “Whatever Happened to Showmanship?,” in *Crackpot: The Obsessions of John Waters* (New York: Vintage Books, 1983), 14–23, 17.

intermittent revivals, complete with Percepto buzzers, so that contemporary moviegoers may imitate the authentic Percepto experience.²¹⁷

Tingler's lasting popularity may be due to its humorous tone: unlike the high technological aspirations of D-BOX, *Captain EO*, and Sensurround, Percepto offered at once a new cutaneous cinema technology, and its parody. Since Percepto and Emergo, Hollywood comedians have offered separate parodies of the cutaneous technologies produced by developers outside Hollywood. Two examples are particularly cutting: "Feel-a-Round," a sketch from John Landis's 1977 *Kentucky Fried Movie* that parodies Sensurround, and Tim Heidecker and Eric Wareheim's parody of DBOX in *Tim and Eric's Billion Dollar Movie* (2012) that takes the form of a mock infomercial for the "Schlaaang Super Seat." These parodies express the stakes of cutaneous haptics in cinema spectatorship, as opposed to film's more accepted affective modes of continuity editing and authorial manipulation. In both parodies, physical manipulation of the spectator in the movie theater is understood to challenge dominant straight white masculinity: *Kentucky Fried Movie* imagines a Feel-a-Round "technology" consisting simply of ushers manipulating the bodies of spectators, while *Tim and Eric's Billion Dollar Movie* imagines a "Super Seat" that would completely physically incapacitate viewers, inserting their feet into stirrups, inserting scent-delivering tubes into their nostrils, and even injecting hormones into their veins to match their emotions with the movie. Such parodies of film's haptic experiments can help us to understand what has been at stake in introducing the sense of touch to the cinema experience. These anxieties, largely about masculinity, sexuality, and physical ability differ in tone from the 1970s to the

²¹⁷ See "6th Annual Summer Festival of Fantasy, Horror, Science Fiction 6 Weeks" Advertisement for Film Forum, *Village Voice*, August 18, 1992; "Happening Monday—Movies: The Tingler," *Los Angeles Times*, October 31, 2011.

2010s. “Feel-A-Round” adds a focus on class, gender, and sexual anxieties, as well as on fears of theatrical-release pornography in the late 1970s. “Schlaaang Super Seat” shares the gender and sexual anxieties of the 1970s, but adds fears of aging, incapacitation, and loss of physical ability due to media consumption.

“Feel-A-Round” begins when a character identified in the credits as “Man” (Jeff Maxwell) visits a theater to attend a film displayed with this mysterious new technology, whose name sounds a lot like Sensurround. The dilapidated movie palace featuring Feel-A-Round is not equipped with the latest sound technology, however; instead, ushers in traditional costume stand behind each theatergoer. These theater employees provide the Feel-A-Round experience themselves, by touching and manipulating the bodies of the patrons. As the man watches, a male usher lights a cigarette to blow smoke in his face, squirts perfume near his nose (he covers his popcorn), and even gives the man a shoulder and head massage as a romantic scene heats up. However, as the romance on screen takes a bad turn, with a woman in the film demanding to know the truth behind a lipstick stain, the usher yanks the man’s collar. The man in the theater recoils in fear as the woman on screen pulls a knife on her lover, and the usher puts a knife to the man’s throat! “Do you want to spill your blood?” the woman on screen asks. The man in the theater shakes his head “no” insistently, but the man in the film shouts, “I’m not afraid to spill my own blood!” After a moment of dangerous anticipation, the woman in the film finally recants: “I can’t do it.” The usher unceremoniously throws the knife aside. The film ends happily, with the lovers uniting and the usher giving the man a kiss on the cheek, but there’s more. The next film in this double feature, a sound system announces, will be *Deep Throat* (dir. Gerard Damiano, 1972). The usher smiles, but the man screams and flees the theater in homophobic panic.

This sketch depicts how the experience of watching a movie might shift if the actions on screen had bodily consequences. A lovers' squabble that constitutes drama in a traditional audiovisual film might be more frightening if the audience's bodies were subject to the lovers' violent fighting. A sex scene that offers voyeuristic excitement to anonymous patrons in a darkened theater has consequences for a viewer's sexual identity if the acts are actually performed on him through an usher's sex work. The sequence is also about labor and technology. Immersive and futuristic theater systems are often marketed as labor-saving systems, replacing the viewer's work of attending to and interpreting the film with a machine to produce the appropriate bodily responses automatically. What if this labor were visible as human ushers hired to perform the "immersive" actions promised by a futuristic theater system? Riffing on the expense of installing high-tech in-theater machinery during the US economic downturn of the 1970s, the sketch jokes that it might be cheaper for struggling theater owners to hire workers than to renovate their theaters. Finally, the joke focuses on the uncomfortable physical intimacy built between this "touch system" and the viewer, and the viewer's necessary submission to that interface. At first the usher causes pain and discomfort, even threatening the viewer's life. As is common in Hollywood representations of sex and violence, what is more horrifying than this near-violence is the idea that the usher may perform sexual acts on the viewer, and the viewer's sexuality and gender might be destabilized. This scene of potential sex between a viewer and an usher in the theater may reference *Deep Throat*, but it is more similar to the opening sequence of *The Opening of Misty Beethoven* (dir. Radley Metzger, 1976), in which the title character (Constance Money) casually offers a sexologist (Jamie Gillis) a five-dollar "no-frills" hand job in an adult movie theater. In *Misty Beethoven*, the sexologist is offended by Misty Beethoven's lackluster and

workmanlike technique, but in *Kentucky Fried Movie* the man in the theater is horrified by the very idea that sex work might become part of a four-dollar movie, particularly because he does not get to choose who will perform it. The homophobic joke that concludes the sketch reprises a familiar association in science fiction between queerness, commercialism, and the machine.²¹⁸ The sketch uses the specter of homosexuality to engage the particular danger that arises in straight cisgender men's interaction with touch, implying that if straight men submit to passive manipulation by a media interface, they are in danger of becoming queer. This fear of submitting to the queer touch of the movie can be a source of pleasure, as when the usher gives the man a head and neck massage, or panic.

The opening sequence of *Tim & Eric's Billion Dollar Movie* (dir. Tim Heidecker and Eric Wareheim, 2012) further explores the issue of cinematic touch as submission through a parody of contemporary immersive cinema seating technologies like 4DX and D-BOX. Yet while *Kentucky Fried Movie* codes film's touch as queer, *Tim & Eric's Billion Dollar Movie* also deals in fears of disability and bodily injury or incapacitation. Among an assortment of movie-themed props—including velvet curtains, a popcorn machine, and neon signs announcing “Lights! Camera! Action!” and “Classic, Family, Comedy,” Chef Goldblum (Jeff Goldblum) appears to introduce a “paid advertisement for Schlaaang Incorporated.” “Right now, you're probably just getting comfortable in your Schlaaang Super Seat,” Goldblum stutters awkwardly. (“This theater not equipped with the Schlaaang Super Seat,” a small intertitle declares.) A sequence depicting the Super Seat in action shows it as less comfortable than physically intrusive. “First, several needles are connected to a vein in your

²¹⁸ See for example Janet Bergstrom, “Androids and Androgyny,” In *Close Encounters: Film, Feminism, and Science Fiction*, Constance Penley, Elisabeth Lyon, Lynn Spigel, and Janet Bergstrom, eds. (Minneapolis: University of Minnesota Press, 1991), 33–61.

arm.” The needle apparatus makes a crunching noise as we see a close-up of needles entering the inner arm of a viewer. “Chemicals are then introduced to synchronize your emotions with the movie.” The man in the seat smiles broadly and sighs. “Next, air tubes are inserted into the nasal cavity to guide you into a natural breathing pattern!” A medical breathing tube is wound around the man’s head so tightly that it pulls his nose upward exposing the nostrils in a pig-like fashion. He is still smiling broadly, displaying visible, slightly yellowed dentures. “Exotic odors are released, to match the excitement of the movie.” The man looks directly into the camera as he sniffs. “Finally, your legs are moved out of your line of sight, and into our patented ‘Schlaaang Stirrups’ to give you a viewing experience you’ll never forget!” The man groans as he gazes toward an off-camera screen. The seat’s built-in popcorn machine offers another unexpected feature: “up to 3rd degree burns” from the hot butter that squirts the popcorn as the viewer eats it. The sequence concludes with an image of the Super Seat rotating on a CGI platform in digital space, with the same enthusiastic voice-over: “The Schlaaang Super Seat! The ultimate film-watching seating experience!”

This sketch deals with fears of giving up bodily control to new media technologies by playing on viewers’ anxieties about disability and aging. The model who sits in the Super Seat is a middle-aged white man in outdated clothing reminiscent of the 1990s. He wears long hair with a bald spot at the top of his head. The image of the man’s feet being placed in stirrups and nose connected to a breathing tube is reminiscent of a patient being rehabilitated in a hospital bed, or a person sitting in a wheelchair who uses a breathing tube. Schlaaang’s Super Seat also guarantees its users will be physically injured, through its claim to provide “up to 3rd degree burns” with its popcorn machine. Thus, the ad suggests, patrons of the Schlaaang Super Seat are paying to be physically incapacitated and injured. Disability,

injury, and submission—problematically coded as aligned—are framed in the parody as commodities for which viewers happily pay.

The following sequence, in which the film instructs viewers to blink one eye rapidly to calibrate the Super Seat, similarly uses a middle-aged white actor as a model. “Wow! This is easy!” he chirps in a singsong voice after rapidly blinking his left eye for a few seconds. He then cheerily removes his dentures as the voiceover advises, rapidly opening and closing his mouth in a toothless grin. By drawing attention to the first model’s bald spot, and the second model’s dentures, the sketch also plays with a tension between the Super Seat’s high-tech promises and the reality of human bodies and human settings. As in Adult Swim’s 2014 short “Smart Pipe,” which depicts a social media startup of smart plumbing that scans a customer’s anus and analyzes their fecal matter,²¹⁹ the Schlaaang Super Seat juxtaposes the promises of disembodied high technology with an uncharacteristic frankness about human embodiment, coded as grotesque. Also like “Smart Pipe,” Schlaaang Incorporated draws upon the continuing homophobia of straight, white male consumers of digital culture. The homophobia of the Schlaaang sequence is more subtly encoded than that of *Kentucky Fried Movie*, but the implication that sitting in the Schlaaang super seat is aligned with male sexual submission and penetration is present in the way that the seat opens the first model’s legs wide to receive the movie, and asks the second model to remove his dentures before the movie begins. As opposed to *Kentucky Fried Movie*, which depicts open rejection of homosexuality as the climax of the joke, *Tim & Eric’s Billion Dollar Movie* deals in a more contemporary version of heteronormative masculinity, in which the idea that (uncoded,

²¹⁹ Adult Swim, “Smart Pipe – Infomercials – Adult Swim,” *YouTube* 18 November 2014, accessed 21 September 2016, [youtube.com/watch?v=DJklHwoYgBQ](https://www.youtube.com/watch?v=DJklHwoYgBQ).

assumed heterosexual) men might find pleasure in submission and penetration is itself the joke.

In both instances, homophobic jokes express fears of bodily intimacy with media interfaces, particularly submission to touch and bodily manipulation by a media text. This relationship of viewers submitting bodily to a media system is fearsome because it reverses the popular reading of the “male gaze,” in which voyeuristic patrons perceive—and thereby control—screen images at a distance.²²⁰ Analyses of masculinity in media spectatorship and the “male gaze” have often coexisted with anxieties about the breakdown of this fantasy: Mulvey’s 1975 article “Visual Pleasure and Narrative Cinema” was contemporaneous with the 1976 “Feel-A-Round” sketch discussed above, just as Anita Sarkeesian’s *Tropes vs. Women* series (2011–2015), which draws heavily on gaze politics and discourses of female objectification in media, coexists with “Schlaaang Incorporated.”²²¹ Yet this submission to the interface is also presented as attractive, promising even jaded and overstimulated media fans an opportunity for a greater thrill. Of course, for many male consumers, having sex with a media interface is more utopia than dystopia. Chapter 4 explores the fantasy of direct sexual contact with partners or computers through the persistent fantasy of teledildonics. While the sketches above use homophobic parody to denigrate human-media sexual experiences, teledildonics sells the utopian-dystopian fantasy of sex with and through a media interface. This model of cutaneous haptics may have utopian potential in the digital media industries, but in Hollywood, the fantasy of authorship and its affective manipulation

²²⁰ As discussed above, this common understanding of the gaze may diverge from the understanding of psychological “fixation” in Laura Mulvey’s work. Mulvey, “Visual Pleasure and Narrative Cinema.”

²²¹ See *Feminist Frequency: Conversations with Pop Culture*. 2012–2015, accessed 28 July 2015. feministfrequency.com/.

has more power as utopian. While it would be impossible to re-trace all of the discussions surrounding authorship and affect in cinema, below a brief archaeology of the discourses of authorship, the “spine tingle” and the gimmick demonstrate the utility of haptic media as a framework for reading *Tingler* and its attendant cutaneous technologies. What if the cutaneous theater seat technologies, affective “tingles,” and authorial intent were all part of one history of haptic media? By centering the sense of touch in the visual medium of cinema, scholars may gain new perspectives on the contemporary rise of cutaneous theater seats’ use of cutaneous touch as a communications medium, and as an aesthetic component of theatrical film exhibition.

The Author of the Thrills: Tingler’s Percepto in the History of Spine Tingles

When a filmgoer feels the vibration of a theater seat, who or what is touching the viewer? Is it the seat, as an interface or apparatus? Is it the text or narrative, translated to the medium of haptic force feedback? Or is it the film’s author, who makes an artistic intent felt cutaneously on the skin? If there is an “author” to this moment of haptic feedback, is this author the film’s director, the inventor of the technology, the theater owners who installed the device, or the film studio who packaged the experience? This section takes up these questions of haptic authorship, following a trail of imagined authorship and touch experiences in film and media, in order to understand the relationship between the haptic technology of haptic interfaces in the movie theater and the more well-known haptic “technology” of film authorship. This authorship takes many forms, from the auteur model of film directors and independent producers seeking artistic control in the Hollywood film industry, to the commercial “star-auteurs” of the 1980s, to the engineer auteurs within the commercial system of contemporary

technology corporations, to an authorship ascribed to the haptic technologies themselves, felt through vibration, movement, and other force feedback technologies in theater seats.

The clearest auteur figure in the history of touch-cinema is B-picture director William Castle. The Percepto vibrating seat system marketed along with his 1959 Columbia Pictures film *The Tingler* is sometimes cited as an early historical precursor to contemporary moving seat systems including D-BOX and 4DX for its ability to touch its audience cutaneously, at the surface of their skin.²²² Castle and his films have been championed and criticized, but commentators usually credit Castle with the authorship of a series of “gimmick” pictures in the 1950s and 1960s. He is also credited with their interactive elements, from Emergo’s plastic skeleton, to Percepto vibrating motors placed beneath select theater seats and activated by the projectionist in time with a cue sheet, to “Illusion-O,” a card designed with red and blue celluloid windows to add or remove ghosts from the film (as in *13 Ghosts*, 1960). The star personas of Castle and genre actor Vincent Price organized the consumption of these semi-yearly gimmick pictures—the full list of their pictures includes *Homicidal* and *Mr. Sardonicus* (1961), *Zotz!* (1962), and *13 Frightened Girls* (1963)—until 1964 and 1965 when Castle made two late-career Joan Crawford vehicles that replaced the allure of the gimmick with the allure of the A-list star. Castle nevertheless eluded recognition as an auteur according to his autobiography, either as directorial star within his studio or studio-transcending artist. Though he acquired the rights to the Ira Levin novel *Rosemary’s Baby* and pitched it to Paramount pictures, the studio did not recognize Castle as an A-list film auteur, insisting on Roman Polanski to direct and leaving Castle with the role of producer for

²²² See for example David Konow, “William Castle: The First Interactive Filmmaker,” *Tested*, May 10 2013, accessed May 8 2014, tested.com/art/movies/455406-william-castle-first-interactive-filmmaker/.

the 1968 film.²²³ While Polanski's image as a European cinema director with a strong visual aesthetic fit the influential *Cahiers du Cinema* model of the *auteur theory* popularized in France the 1950s and 60s as it was beginning to be taken up by Hollywood film promotion, Castle's more flashy, special-effects, advertising, and exhibition-oriented model of authorship would eventually be redeemed. By 2008, *The Guardian* revisited Castle's biography, declaring him "more than a mere showman," and calling him "an unwitting auteur . . . the godfather of interactive cinema."²²⁴ This *Guardian* think piece was inspired by a screening of *The Tingler* alongside *The Crime Doctor's Warning* (dir. William Castle, 1948) and the biographical documentary *Spine Tingler! The William Castle Story* (dir. Jeffrey Schwarz, 2007) at the British Film Institute Southbank, one of a series of revivals and remakes of Castle's films throughout the 1990s and 2000s, some of which resurrected *Tingler's* vibrating gimmick.

We could trace Castle's redemption narrative to his cult following, which was certainly influenced, if not launched, by John Waters' declaration of Castle as "king of the gimmicks" in his 1983 article for *American Film* entitled "Whatever Happened to Showmanship?"²²⁵ In the early 1980s, an era when the model of film *auteurs* as highbrow artists had been in decline as an academic theory, but appropriated by Hollywood to such an extent that it no longer guaranteed aesthetic originality *or* commercial success, Waters used

²²³ William Castle, *Step Right Up!...I'm Gonna Scare the Pants Off America: Memoirs of a B-Movie Mogul*, Kindle Edition (Copyright William Castle 2010), loc. 3894. Castle claims he eventually approved Polanski for the role of director despite initial reservations (loc. 3957).

²²⁴ David Parkinson, "Spine Tingling Came of Age with William Castle," *Guardian* 8 July 2008, accessed 21 September 2016, theguardian.com/film/filmblog/2008/jul/08/spinetinglingcameofagewit.

²²⁵ John Waters, "Whatever Happened to Showmanship?", 14.

the example of Castle's early 1960s gimmick picture cycle to valorize the visible commercialism of the "showman" over the presumed commercialism of the "auteur."²²⁶ In the process, Waters attributed a showman's authorship to Castle and a group of commercial artists including Liberace, exploitation filmmakers of the 1930s through the 1950s, and himself—"William Castle was my idol," Waters writes.²²⁷ Following this nostalgic recollection, *Tingler* has experienced periodic revivals in major US cities since the 1990s: in August 1992, New York City theater Film Forum advertised "William Castle's *The Tingler*" would be screened "in Spine-Tingling PERCEPTO!" as part of its "sixth annual Summer Festival of Fantasy, Horror, and Science Fiction."²²⁸ *Tingler* revivals went on to punctuate New York summers, as in August 1997, *Theater Crafts International* reviewed a theater production of *Tingler* that also reproduced the film's famous vibrating seats.²²⁹ Columbia released a "40th anniversary DVD," and Christopher Schaefer covered the film in *Mondo Cult* magazine, in 2007.²³⁰

Though *The Guardian* went so far as to call Castle an "unwitting auteur" in 2008, this label was earned not by virtue of Castle's ability as an artistic director, but through the clever use of electrical and mechanical systems in theaters.²³¹ Critics who questioned Castle's

²²⁶ On 1980s *auteur* discourse and commercialism, see Timothy Corrigan, "The Commerce of Auteurism," in *Film and Authorship*, ed. Virginia Wright Wexman (Rutgers, NJ: Rutgers University Press, 2003), 96–111.

²²⁷ Waters, "Whatever Happened to Showmanship?" 13–14.

²²⁸ "6th Annual Summer Festival of Fantasy, Horror, Science Fiction 6 Weeks."

²²⁹ Hogan, Jane, "That Tingly Feeling," Rev. of *The Tingler*, by Packawallop Productions, *TCI: Theater Crafts International* (August/September 1997).

²³⁰ Christopher Schaefer, "The Tingler," *Mondo Cult* no. 2 (2007), 45–47.

²³¹ Parkinson, "Spine tingling came of age."

auteurship similarly focused not on the quality of *Tingler*'s filmmaking, but on his theater gimmicks' lack of technological complexity. A May 2013 article from science and technology blog *Tested* entitled "William Castle: The First Interactive Filmmaker"²³² begins:

Although the late William Castle, the man who gave us such films as *Macabre* [1958], *The House on Haunted Hill*, and *The Tingler*, had a reputation for making schlocky, low budget horror movies, he was recently called the first interactive filmmaker. And indeed, his gimmicks did make audiences an active part of the movie going experience, even if an inflatable skeleton floating over the audience, or seat buzzers zapping you with mild electrical current wasn't as innovative as creating IMAX, Dolby Atmos sound, or even D-Box.²³³

This short piece, which praises Castle for his quaint 1950s inventiveness while dismissing him for their lack of technological sophistication, appears on a blog run by the stars of the educational science TV program *MythBusters* (Discovery Channel, 2003–), on which snarky-yet-benevolent nerds test popular urban legends using empirical methods. True to the tech-savvy spirit of the site, Konow rates Castle based on a middlebrow scientific standard of innovation, valuing expensive systems like IMAX and Dolby Atmos sound, and seeing mid-range technologies like D-BOX as "even" more innovative than Castle's "schlocky, low-budget horror movies." Though the article's headline promises to tell the history of "interactivity," a term associated with personal computers, technological futurism, high

²³² David Konow, "William Castle: The First Interactive Filmmaker," *Tested*, May 10 2013, accessed May 8 2014, tested.com/art/movies/455406-william-castle-first-interactive-filmmaker/.

²³³ Konow, "William Castle."

budgets, and consumer agency, the piece ultimately calls Castle's innovations "gimmicks," a term it associates with technological quaintness, nostalgia, low budgets, and the dazzling of passive-thought-canny consumers. Though the article begins by recounting popular anecdotes about the fun and excitement experienced by then-spectators, the conclusion of the article confidently states, "it's very doubtful that Castle's gimmicks could be done on a wide scale today."²³⁴ This article simultaneously cites Castle as an origin point for contemporary technological innovations in cinema and digital media, and dismisses his approach as excessive, quaint, or a sign of different times. Evaluating Castle within the futuristic promise of "interactivity" privileges contemporary new media technologies, including IMAX, D-BOX and digital 3D. Castle's films serve to legitimate these new media by being comparatively low-tech, low-budget, impractical, and potentially sleazy. Thus, Castle is judged as an unsatisfactory *engineering auteur* with respect to the designers of IMAX, Dolby Atmos sound and D-BOX, while his abilities as a filmmaking auteur seem relatively unimportant.

Yet Castle was not the designer of Percepto's technological system. That credit, according to Castle's autobiography, belongs to Dona Holloway, the assistant or associate producer of many of Castle's films, including the Castle-produced blockbuster film *Rosemary's Baby*. Holloway was primarily responsible for the "technical breakthrough" of Percepto, and installed the system alongside Castle for early screenings of the film, as Castle recalls.²³⁵ Though Castle is revered in fan and popular accounts of *Tingler* as an underappreciated artist, or dismissed in others as a quaint and uncomplicated engineer,

²³⁴ Konow, "William Castle."

²³⁵ Castle, *Step Right Up!*, loc. 3066.

Castle's autobiography and 1950s press accounts are the only sources that mention Holloway's contribution.

This lack of credit for Holloway as "author" of *Percepto* is unsurprising considering the emerging model of the director as *auteur* of film art in the 1950s. Though film theorists including Hugo Munsterberg and Rudolf Arnheim argued for film's status as art since the late 19th century, the *auteur* theory of the post WWII period helped apply the model of the director as author to Hollywood cinema at a time when Hollywood was looking for a promotional model beyond studio authorship. The model of the director as independent film producer helped organize fans around individual star auteurs, whereas these fans may have been loyal to a studio's signature style during Hollywood's "golden age" of vertical integration.

William Castle did not eventually gain a place among the commercial auteurs of the 1970s and 80s. However, he promoted himself as the author of his films in a prescient way, and self-financed independent projects like *House on Haunted Hill* before returning to Columbia with *Tingler*. Castle staged elaborate stunts to promote his films often involving himself, and appeared in the films' openings chewing a signature cigar, pioneering the image of the horror *auteur* as master of thrills that Alfred Hitchcock also employed in the 1950s and 60s. Because of the importance of authorship to the attribution of cinematic effects, Castle's status as director marked him as the source of the "tingles" experienced in *The Tingler*. Designing and executing the effect itself was a form of feminized labor compared to the

more prestigious and masculinized realm of directorial authorship, in an age when early computer programmers were disproportionately female.²³⁶

The dual image of Castle and Holloway, with Castle dreaming up and selling big ideas while Holloway executes the technical details, is a familiar division of labor in the tech industry, with its dual authorship teams of CEO and engineer, including “the Steves” of Apple (Steve Jobs and Steve Wozniak) and “the Johns” of Id Entertainment (John Carmack and John Romero). In these duos, authorship remains in tension, with creative “visionaries” like Steve Jobs competing for importance in public perception with technical “geniuses” such as Steve Wozniak. This tension is staged in historical fiction like *Steve Jobs* (dir. Danny Boyle, 2015), in which Jobs (Michael Fassbender) appears as a flawed character and uncompromising leader. Wozniak (Seth Rogen) comes off in the film as a more sympathetic character, struggling for recognition from Jobs alongside the entrepreneur’s estranged family and struggling employees. In a dramatic confrontation, Wozniak boldly asserts his technical authorship of Apple’s products, referencing well-known authorial tension in the Beatles’ *oeuvre*: “I am tired of being Ringo when you know I was John!” Critics’ focus on the technical specifications of Castle and Holloway’s gimmicks has been made possible by this decades-long struggle to shift the locus of authorship and artistry from writing and visual design to engineering and technical execution. While Castle, or Holloway, may be an early haptic auteur, a film director rarely receives credit today for the design of contemporary haptic technologies. Instead, CEOs pitch products in media extravaganzas while engineers

²³⁶ See Laura Sydell, “The Forgotten Female Programmers who Created Modern Tech,” *All Tech Considered* 6 October 2014, accessed 22 September 2016, npr.org/sections/alltechconsidered/2014/10/06/345799830/the-forgotten-female-programmers-who-created-modern-tech.

execute them. Fans of consumer electronics and computer programming search industrial and software design for the artistic signature of the intrepid engineer struggling against the constraints of an impersonal commercial system in the manner of French auteurist critics attempting to trace the personality of a favorite director to a pattern of tracking shots.

The idea of the auteur has arguably been eclipsed in film studies, so why consider authorship in this discussion of haptic technology in film history? In the spirit of Foucault's questions of how the author functions in literature,²³⁷ I propose that authorship represents a "haptic" technology function in cinema insofar as the idea of the author has long organized cinematic affects under a literary model of feeling. As such, authorship has been a preferred "haptic" technology in cinema, with studios, directors, and sometimes performers or screenwriters appearing as the source of affect and embodied sensation for viewers.²³⁸

Against this discourse of screen authors who impart affective or kinesthetic thrills stands the argument that the film apparatus is itself an author of cinematic experience, thus a source for the embodied sensations viewers might feel.²³⁹ Cinema's medium specificity in much film theory relies on a certain set of apparatus elements being present, in particular the camera with its lens, the projector, and the screen. However, as the classical film theorist Rudolf Arnheim remarked in 1993, many aspects of film and photography's medium specificity,

²³⁷ Michel Foucault, "What is an Author?" In *Aesthetics, Method and Epistemology*, ed. James D. Faubion, trans. Robert Hurley (New York: New Press, 1998), 205–22.

²³⁸ The discussion of authorship in film theory is extensive. For a thorough summary of authorship debates in Film and Media Studies, see Virginia Wright Wexman, ed. *Film and Authorship* (New Brunswick, NJ: Rutgers University Press, 2003).

²³⁹ The theory of the apparatus in cinema has shifted as film has become a digital medium. For some traditional discussions of the film apparatus, see Paul Rosen, ed. *Narrative, Apparatus, Ideology* (New York: Columbia University Press, 1986).

such as the image's supposed "indexicality," have shifted following the rise of digital video and digital photography.²⁴⁰ Because of the way cinema has been defined, attempts to expand cinema are more likely to gain recognition as artistic achievements or feats of engineering if they enhance these uniquely "cinematic" elements, while technologies that add haptic force feedback, like vibration and seat movement, are more likely to be viewed as gimmicks.

Cinema's dominant haptic styles are understood to be kinesthetic and affective, yet cutaneous cinema presents an alternate way of thinking about feeling and embodiment in film culture that critiques cinema's claims about immersion. To understand cinema's haptics in terms of narrative authors and cutaneous authors, let us trace a loose archaeology of the term "spine tingler" in film history. This discussion of the "spine tingler" may help trace the haptic effects of film authorship, as well as contextualizing *The Tingler's* haptic parody of this concept, which first incorporated force feedback into movie theater seats. The term "spine-tingler" can be traced from silent film trade journalism of the early 20th century, to discussions of the horror genre in radio and television, to the tingles produced by Percepto.

The "Spine-Tingler" as Authorship Discourse

The title of the biopic *Spine Tingler! The William Castle Story* (dir. James Schwarz, 2007) frames Castle's authorship in terms of his ability to affect viewers' bodies. The use of the phrase *spine-tingler* as the book's title frames both Castle and his film as spine-tinglers, texts that have the ability to produce physical and embodied sensations in their audience, made by an author who knows how to tingle the audience's spine. This section discusses how the

²⁴⁰ Rudolf Arnheim, "The Two Authenticities of the Photographic Media," *The Journal of Aesthetics and Art Criticism* 51, no. 4 (Fall 1993).

discourse of film as affective touch through the term spine-tingler accompanied the early period of directors' claims to film authorship. The phrase "spine-tingler" described a discourse which shifted responsibility for providing an embodied experience of cinema from exhibitors, live performers, and audience members, to film texts and film authors, both of whom were described as spine-tinglers in popular and trade press.

This *spine-tingler discourse* accompanied early film exhibition practice, helping theater owners to understand the similarities between thrilling stage performances and thrilling moving pictures/films. The promise of emotional and physical audience engagement implied in the term spine-tingler assured exhibitors that film could make them money, but it also justified the lowbrow nature of film's appeal to the body in an era following the film industry's self-regulation and newfound bourgeois aspirations. Similarly, trade journals described early radio and television programs as spine-tinglers to signal their high emotional impact and low production cost. The history of the spine-tingler is thus the history of film producers and trade publications convincing exhibitors that films were a profitable enterprise and a technological innovation in themselves—exhibition context was de-emphasized as the power of the individual film text and film director was brought to the forefront. By the time William Castle promised exhibitors and audiences a literally "spine-tingling" Percepto experience, the term spine-tingler had long been used to imply that audiences would buy cheaply-produced yet thrilling films because of the embodied sensations they could provide, reassuring exhibitors that even seemingly low quality products could be profitable.

Nobody had to tell early film exhibitors that their nickelodeons would produce strong affective sensations and embodied reactions, or that these embodied responses could be more thrilling than the films' narrative aspects. Kathy Piess's *Cheap Amusements* describes the

early commingling of nickelodeons with vaudeville, penny arcades, and burlesque, arguing that the low cost of these entertainments made them centers for community bonding and heterosocial engagement for working class New Yorkers at the turn of the twentieth century, regardless of their actual aesthetics or subject matter. Piess writes that film went beyond other cheap amusements in its appeal to female spectators:

Attendance at dance halls and amusement parks often entailed financial dependency on men and rebellious assertions to parents, conditions that not every woman could accept. Even the cheap theater, as reformers called working-class variety and vaudeville entertainment, played to a restricted female audience. Everyone, however, went to the movies. If popular amusements can reinforce particular values and identity within a community, then the early movies, which encapsulated urban social forms popular with working-class youth, expressed and helped to legitimize a heterosocial culture.²⁴¹

Young working-class women could attend nickelodeons precisely because films were so cheap. Early movie theaters were heterogenous and heterosocial environments, where theater commingled with film, men with women, and spectatorship with audience participation.²⁴² Piess argues that working-class spectators attended nickelodeons regularly for the sense of community they provided, not only because of the images being shown on screen. While more high-income members of New York's working-class communities could afford to attend live theater, "approximately 60 percent of all workingmen, whatever their earnings or

²⁴¹ Kathy Piess, *Cheap Amusements: Working Women and Leisure in Turn-of-the-Century New York* (Philadelphia: Temple University Press, 1986), 14.

²⁴² Piess, *Cheap Amusements*, 149.

hours of labor, went to the movies.”²⁴³ Moreover, women made up 40 percent of the nickelodeon audience in 1910.²⁴⁴

However, following a series of moral panics in the mid-1900s over nickelodeons, film acquired newly-bourgeois aspirations toward self-regulation and the demonstration of aesthetic potential.²⁴⁵ In other words, filmmakers and exhibitors suddenly wanted to prove that film was not simply a gimmick but a legitimate technological innovation with social value. In this risky environment for theater owners, the discourse of the spine-tingler argued that continuing to screen the cheaply-produced yet thrilling films that were typical of nickelodeons would be worthwhile for exhibitors, as their cheapness and affecting qualities would draw in large volumes of spectators, offsetting potential risk with assured reward.

Though the term spine-tingler began to refer to the horror or thriller genre in the 1930s, thrilling moments in film were described as spine-tingling since at least 1912, when *Moving Picture World* applied Broadway producer A. H. Woods’s claim that he “could very surely change the ‘spine-tingle’ of American audiences into dollars” to a review of Gaumont’s *In the Land of the Lions*.²⁴⁶ Early adventure and stunt films including *In the Land of the Lions* (Gaumont, 1912), *Helen’s Sacrifice* (dir. J. P. McGowan, 1914), and *The King of the Wire* (dir. Ashley Miller, 1915) were often advertised in the trade press as spine- or

²⁴³ Piess, *Cheap Amusements*, 146.

²⁴⁴ Piess, *Cheap Amusements*, 148.

²⁴⁵ See Peiss, *Cheap Amusements*, 158–162.

²⁴⁶ “‘In the Land of the Lions’: The Gaumont Company Releases Another Big Two-Reel Special.” *Moving Picture World* 13, no. 12 (September 21, 1912): 1164. Media History Digital Library, accessed March 31 2014, lantern.mediahist.org/catalog/moviwor13chal_1168.

nerve-tinglers to convince exhibitors that the films would draw audiences to the theater.²⁴⁷

The *World* associates film's embodied thrills not with the working-class audiences of community theater described by Peiss, but with the more middlebrow world of theater implied by Broadway. Moreover, the *World* claimed film could outdo Broadway theater, since filmmakers could much more easily hide the safety devices for actors performing daring stunts than could theater producers. Film even presented the opportunity for filmmakers to show "the real thing" if performers were "brave enough" to perform risky stunts without the safety devices used in the theater.²⁴⁸

The review emphasized physical audience response as a measure of affective engagement—"Indeed, we have seen motion pictures where the means were so hidden that the incident wrung a cry from the spectators"²⁴⁹—an indication that they were experiencing the spine-tingle Woods described as inherent to the theater. Moreover, though the article stresses the low production value of films compared to theater, it spins these aspects into qualities proving film exceeds theater's artistic potential. Thus the lack of safety devices for film actors, a function of their lower star status and the inability of low-budget film producers to pay for safety devices, is framed as an indication of actors' bravery and the films' realism. Filmgoers, reacting to the real peril of actors in these films, may have been genuinely thrilled

²⁴⁷ "'Helen's Sacrifice': Helen Holmes is Heroine of New Series of Railroad Melodramas Being Released by Kalem," *Moving Picture World*, 14 November 1914, 913, Media History Digital Archive, accessed March 31, 2014, lantern.mediahist.org/catalog/movingpicturewor22newy_0953; "Thomas A. Edison Presents a 3-Act Thriller by the Author and Director of 'Out of the Ruins': 'The King of the Wire.'" *Moving Picture World* 7 August 1915, 962, Media History Digital Archive, accessed March 31, 2014, lantern.mediahist.org/catalog/movingpicturewor25newy_1012.

²⁴⁸ "In the Land of the Lions," 1164.

²⁴⁹ "In the Land of the Lions," 1164.

by the low-budget realism and danger of early film action and performances, or, like nickelodeon viewers, they may have been drawn to the cheapness of film tickets.

In film, as in theater, spine-tingles were supposed to bring audiences back for repeat viewings:

We like to have our feelings thrilled as we like to know that we are alive. If our hearts jump up into our throats for an instant, so much the better. If the big thrill of this kind is accompanied by the longer-lasting thrill, as when our feelings are grasped and wrung by a situation, we are willing to pay not only once, but several times and to see it again and again. So the dollars come.²⁵⁰

This moment of nascent film theory anticipates Hugo Münsterberg's more famous comparison of film and theater's affective qualities in *The Photoplay: A Psychological Study* (1916).²⁵¹ The *World's* theory of spectatorship describes touch in the cinema on several levels. First, *Moving Picture World* describes the excitement of film as "hav[ing] our feelings thrilled," a description that implies a passive audience being affectively touched by a cinema that manipulates their emotions. Next, the passage refers to "our hearts jump[ing] up into our throats for an instant" as a distinct sensation from this thrilling feeling. A moment of heart-jumping terror, such as the one which "wrung a cry" from the audience, combines affective touch with a kind of interoception²⁵²—the internal awareness of one's bodily organs. This

²⁵⁰ "In the Land of the Lions," 1164.

²⁵¹ Hugo Münsterberg, *The Photoplay: A Psychological Study* (New York: D. Appleton and Company, 1916), Universal Library, Internet Archive, accessed July 31 2014. archive.org/details/photoplaypsycho005300mbp.

²⁵² This term is used in perceptual psychology to define one part of the *proprioceptive sense*, the awareness of one's body in an environment. While *exteroception* is the individual's

second mode of cinematic touch most clearly approaches the cutaneous touch implied by the term “spine-tingler.” Finally, the “longer-lasting thrill, as when our feelings are grasped and wrung by a situation” describes affective engagement in a film’s narrative, a mode of cinematic touch that became the dominant thrill of classical Hollywood cinema. Though narrative engagement is framed as the most important style of cinematic touch, bringing audiences back for repeat viewings, *Moving Picture World* also frames this mode as important *in addition* to thrilling moments of emotion and interoception—without these cheaper thrills, narrative is less compelling if not altogether ineffective.

The *World*’s review of “In the Land of the Lions” goes on to offer advice to early exhibitors about how to best thrill their audience, suggesting “a good growler” as a Lion sound effect to be operated in the theater, and describing the most climactic moments of the picture in technical detail: “The spring is right toward the audience and there is no anti-climax, for the film ends with the beast in the air. It brings the heart right up to the throat.”²⁵³ This description frames the film as a product to be sold to exhibitors, describing technical aspects of the film’s visual aesthetics as proof that the “In the Land of the Lions” is a quality product with surprising new techniques. It also frames exhibitors as professionalized technical experts, choosing their prospective films with discerning tastes.

The *World* also assured prospective exhibitors of the legitimate and innovative qualities of “The King of the Wire” in 1915, writing, “It’s nothing of the same old stuff—

awareness of the outside environment, *interoception* is the awareness of sensation originating within the individual’s body. See Yvette Hatwell, “Introduction: Touch and Cognition.”

²⁵³ “In the Land of the Lions,” 1164.

something new, big, gripping in the unusualness of it.”²⁵⁴ In this review, *Moving Picture World* implies that exhibitors are themselves susceptible film fans, albeit the most seasoned and difficult-to-impress of all: “As the wire swings and sways, as we see the pursuing crook start out on the wire in pursuit, even a ‘hardened’ Exhibitor will get a thrill that starts the perspiration.”²⁵⁵ By courting exhibitor taste, which is portrayed as refined and discerning, *The World* attempts to present the cheap and affecting new medium of cinema as a legitimate technological innovation, whose quality ultimately determines its profitability. Spine-tingling as a measure of quality therefore justified the cheapness of some cinema amusement, even as the film industry aspired to professionalization in the 1910s and 1920s.

As the nickelodeon culture of cheap amusements died out, bourgeois pictures legitimated their thrilling moments through an evolving concept of the spine-tingler. Of D. W. Griffiths’s *One Exciting Night* (1922), the *Morning Telegraph* wrote, “for sheer blood-curdling inventiveness, it is going to snatch a lot of royalties away from . . . [mystery writer] Mary Roberts Rinehart and put them back into the film industry. If there is one single spine-tingler or goose-flesh inducer that Pinkerton, Doyle, Poe, Jack Boyle, and the other mystery spinners have overlooked, here you have it.”²⁵⁶ By using phrases like “blood-curdling,” “spine-tingler,” and “goose-flesh inducer,” this review argues that film can be as effective as the printed word at evoking an embodied emotional response from audiences. Moreover, film’s ability to affect the human body is measured in terms of dollars. The review concludes

²⁵⁴ “Thomas A. Edison Presents,” 962.

²⁵⁵ “Thomas A. Edison Presents,” 962.

²⁵⁶ “Newspaper Opinions: ‘One Exciting Night’—Griffith—Apollo,” *The Film Daily* 2 October 1922, Media History Digital Library, accessed 31 March 2014, lantern.mediahist.org/catalog/filmdaily2122newy_0954.

optimistically: “One Exciting Night” will probably be as great a money maker as Griffith ever released.”²⁵⁷ Full-length features could also offer a variety of profitable thrills, among which spine-tingling was just one. A 1930 ad for Fox in *Motion Picture News* advertised a hard-boiled tale of *Man Trouble* (dir. Berthold Viertel) as “a romance that’s a spine-tingler and a heart-toucher combined.”²⁵⁸ In this description, spine-tingling and heart-touching are portrayed as part of disparate genres that nevertheless combine in *Man Trouble*. The term “spine-tingler” takes on the more physical quality of the crime or mystery genre, while “heart-touching” takes place in the more melodramatic realm of emotions.

By 1934, the spine-tingler had coalesced into an intelligible genre of its own, and *Universal Weekly* advertised *The Black Cat* (dir. Edgar G. Ulmer) as “the latest Universal spine-tingler.”²⁵⁹ Throughout the 1940s and 1950s, spine-tingling sensations were usually associated with the crime, mystery, thriller, and horror genres in literature, film, and the nascent media of radio and television. In particular, live or live-like radio programs often earned the designation spine-tingler from the trade press. Sensational news events,²⁶⁰ an

²⁵⁷ “Newspaper Opinions.”

²⁵⁸ “Every Week and Every Picture Establish More Firmly Fox Supremacy,” advertisement for Fox, *Motion Picture News*, 16 August 1930, Media History Digital Library, accessed 31 March 2014, lantern.mediahist.org/catalog/motionpic42moti_0642.

²⁵⁹ ““Universal At Peak of Production,” *Universal Weekly* 31 March 1934, 25, Media History Digital Library, accessed 31 March 2014, lantern.mediahist.org/catalog/universal2438univ_0871.

²⁶⁰ “On the Air Last Night,” *Motion Picture Daily*, 8 January 1937, 4, Media History Digital Library, accessed 31 March 2014, lantern.mediahist.org/catalog/motionpictredai41unse_0076.

unexpected death on the air,²⁶¹ and Orson Welles' famous *War of the Worlds* broadcast, were all described in trade reports as spine-tingling.²⁶² On television, even performers could be called spine-tinglers, for their ability to spook their audience. A 1951 TV program listing advertised "Lights Out. Chillers narrated by spine-tingler Frank Gallup" at 9:00 PM.²⁶³

Just as with early film, early television used the concept of the spine-tingler to convince skeptics of the medium's quality, despite its sometimes lowbrow features. While early film trade press highlighted and professionalized exhibitor taste, advertisers were the target of spine-tingle discourses for radio and television. A 1951 feature article in *Sponsor* magazine entitled "Why Auto-Lite Spends \$1,500,000 on AM and TV Mysteries" argued that spine-tingling mysteries were particularly profitable for advertisers, and thus deserved big investment.²⁶⁴ Of the radio show "Suspense," the article argued, "commercials, humorous, gain impact through contrast with the grim mood of each spine-tingler."²⁶⁵ This coaches advertisers to understand the spine-tingler as part of an overarching aesthetic strategy to make advertiser announcements more noticeable, and therefore more profitable.

²⁶¹ "Dies at the Mike: Priest Succumbs at WOMT in Middle of Program," *Broadcasting*, 1 March 1940, 24, Media History Digital Archive, accessed 31 March 2014, lantern.mediahist.org/catalog/broadcasting18unse_0390.

²⁶² "The Martian Lesson," *Broadcasting*, 1 March 1940, Media History Digital Library, accessed 31 March 2014, lantern.mediahist.org/catalog/broadcasting18unse_0412.

²⁶³ "Program Highlights in Television Viewing, March 11th–April 10th, New York City and Suburbs." *Radio and Television Mirror* 35, no. 5 (April 1951): 75–78, 76. Media History Digital Library. Accessed March 31, 2014.

lantern.mediahist.org/catalog/radiotel00macf_0436.

²⁶⁴ "Why Auto-Lite Spends \$1,500,000 on AM and TV Mysteries," *Sponsor*, October 8 1951, 40–41, 41. Media History Digital Library. Accessed March 31, 2014. lantern.mediahist.org/catalog/sponsor51sponno2_0781.

²⁶⁵ "Why Auto-Lite Spends \$1,500,000."

From the nickelodeons of the early 20th century to the early TV programs of the 1950s, spine-tinglers were thrilling and embodied for spectators, and cheap but profitable for advertisers and exhibitors. While the theory of the body genre argues that embodied response is a quality that makes certain genres “low,” thus devalued in the popular imagination, trade journals used the discourse of the spine-tingler to argue for low genres’ aesthetic merits and profitability. Exhibitors and advertisers, framed as discerning fans in their own right, were coached through trade journal discourse to view spine-tingling as part of new media’s legitimate technological innovation, even as it assured them that these products would be profitable due to their gimmicky qualities. Spine-tingles could be applied to a particular event, or a genre of film, television, or radio. William Castle innovated the use of “spine-tingler” to apply to himself as an author, however, as well as the use of cutaneous vibrations to produce a whole new kind of spine-tingle. Below, an analysis of *Tingler* demonstrates the tension between narrative spine-tingles and cutaneous spine-tingles. Percepto’s use of spine-tingles both innovated and parodied theater gimmicks, just as *Tingler* both produced and parodied Castle’s auteurship.

Tingler and Percepto: Haptic Technology and Counterhaptic Parody

Cheap thrills were in high demand by the late 1950s, when *Tingler* director William Castle transitioned from a B-picture director at Columbia to an independent filmmaking celebrity in his own right. By 1958, when Castle released his first independently-produced feature, *Macabre*, the Hollywood studios’ mandate to divest ownership in their theaters following the *Paramount v. US* court decree had made an already-bad situation for independent movie theater owners even worse. Once, these independents had bought packages of mostly B-

pictures from studios to secure blockbusters, only showing these big films once studio-owned theaters had played them out. Now the studios had barely any films to sell, fewer that featured established stars, and even fewer that showcased new star talent.²⁶⁶ Desperate for revenue, exhibitors bought into the 3-D boom of the early 1950s, upgrading their facilities with various widescreen and 3-D technologies, with little financial reward.²⁶⁷ The high cost of these new technologies and their paraphernalia ensured that the highest profits from 3-D went to the manufacturers of 3-D glasses, next to the studios, and finally to exhibitors, some of whom took financial losses on 3-D films due to the high costs of the technology.²⁶⁸ Exhibitors were frustrated, theaters were empty, and any promise of new exhibition technology was beginning to look to theater owners like a scam. Peter Lev calls the 1950s an era of “industry-wide problems,” citing the rise of television, rampant white flight from cities to suburbs, and moral panics including the “red scare” as other issues plaguing the film industry at that time.²⁶⁹

This troubled time for theatrical film exhibition was the perfect environment for William Castle to make his name as the master of theater gimmicks. A former theater employee himself, Castle marketed his films through flashy-sounding but ultimately low-tech theater stunts. For *Macabre*, Castle bought a \$1000 life insurance policy from Lloyd’s of London, issued to every viewer in case of death by fright. Castle paid for this stunt himself,

²⁶⁶ See Kevin Heffernan, *Ghouls, Gimmicks, and Gold: Horror Films and the American Movie Business* (Durham, NC: Duke University Press, 2004), 100–23.

²⁶⁷ Heffernan, 229.

²⁶⁸ Heffernan, 228.

²⁶⁹ Peter Lev, “The American Film Industry in the Early 1950s,” in *History of the American Cinema Volume 7: 1950–1959* (Berkeley: University of California Press, 2003), 7–32, 7.

along with the film's production, by mortgaging his house. He also self-funded his second independent picture, *The House on Haunted Hill*, and its low-budget audience participation mechanism. Emergo's plastic skeleton on a wire was one of Castle's most well-loved and low-tech stunts of all: the stately pace at which the skeleton was drawn across some theaters encouraged repeat viewing, as fans hoped to hit it with their popcorn boxes.²⁷⁰ *Macabre* and *House on Haunted Hill* were such commercial hits that Columbia offered to fund Castle's third gimmick picture, *The Tingler*, and to pay for its gimmick, *Percepto*.

The Tingler promised more audience participation than *Macabre* and *House on Haunted Hill*: advertisements promised that audience members "will feel physical reactions and real live sensations projected by the actors on screen!"²⁷¹ *Percepto*, the film's touch-based gimmick, was in fact a system of seat buzzers, which delivered quick jolts of sensation to selected theater seats at the press of a button from a projectionist or stagehand.

Advertisements described *Percepto* as an "amazing new terror device," promising full audience participation in the "flesh-crawling action." The sensational language used in these advertisements suggests that audiences are in for a range of physical and emotional thrills, from the "terror" portrayed on the screen and felt by the audience, to the "shock" of both the story and, presumably, the theater seat. An advertisement asking "Do you have the guts to sit in this chair?" pictures the theater seat as the source of terror. A multi-pointed starburst surrounding the chair suggests that the seat will be electrified during the film. Other ads emphasized *Percepto*'s technological innovation:

²⁷⁰ Waters, "Whatever Happened to Showmanship?"

²⁷¹ Christopher Schaefer, 46.

FOR THE FIRST TIME IN FILM HISTORY the audience actually plays a part through the startling use of a new terror technique . . . PERCEPTO! In this astounding shock-story, you will feel physical reactions and real live sensations projected by the actors on the screen!²⁷²

Late-1950s filmgoers would have been familiar with this hyperbolic rhetoric of technological breakthrough from the 3-D boom of 1952–54, a period which also saw the rise of widescreen processes CinemaScope and Cinerama, and various stereo sound systems. Kevin Heffernan argues that this tech boom was the result of competition between equipment manufacturers, film distributors, and film exhibitors following the breakdown of the Hollywood studio system.²⁷³ He writes, “In the case of 3-D, what was being sold to exhibitors was not so much the films themselves as the competing hardware systems needed to exhibit 3-D films (and the stereo sound systems with which the 3-D systems were packaged), which were vying with one another to become the new industry standard.”²⁷⁴ While 3-D films were profitable for distributors and particularly for the manufacturers of 3-D glasses, exhibitors were forced to pay a hefty share of their profits to distributors, on top of paying to install the equipment.²⁷⁵ For small theaters, the financial burden of 3-D was devastating. Heffernan writes of the 1952 3-D release *Bwana Devil* (dir. Arch Oboler), “Whereas first-run theaters could raise their ticket prices enough to compensate for the fifty-fifty split with United Artists on the cost of the viewers, subsequent-run houses found that patrons balked at the ten-cent ticket increase

²⁷² Christopher Schaefer, “The Tingler,” 46.

²⁷³ See Heffernan, *Ghoul, Gimmicks, and Gold*.

²⁷⁴ Heffernan, *Ghoul, Gimmicks, and Gold*, 229–232.

²⁷⁵ Heffernan, *Ghoul, Gimmicks, and Gold*, 229.

that kept the theater from taking a loss on the glasses. This was bitterly noted by a New Jersey exhibitor who said, ‘We’re doing so much business with 3-D that we’re going out of business.’”²⁷⁶ Though second-run theaters had an adversarial relationship with Hollywood throughout the studio era, the technological innovation of the early post-studio era contributed to a “widespread exhibitor disloyalty to studio product” which Jon Lewis argues led many theaters to show X-rated films in the late 1960s and early 1970s.²⁷⁷

The high financial burden of the 3-D and widescreen booms of the early 1950s seems like a betrayal of exhibitors when compared to the promise of cheap thrills inherent in the spine-tingler discourse described above. Films like *Bwana Devil* were B-pictures in narrative and filmmaking quality, but cost A-picture prices, when the cost of the exhibition systems used to show them were factored in. While exhibitors were accustomed to showing many B-pictures in the studio era, turning profits on cheap but thrilling theater fodder, the relative lack of film product in the years following the *Paramount* decrees left independent theaters vulnerable to economic exploitation by studios losing profits and technology developers seeking to make their fortune. Though films like *Bwana Devil* followed the spine-tingler discourse of providing embodied sensation—“A LION in your lap! A LOVER in your arms!” was one tagline—they did not deliver the cheapness that was the spine-tingler’s chief quality in the eyes of some exhibitors, and of fans.

Compared to the high exhibitor costs of 3-D, widescreen technologies, and surround sound, Percepto was relatively cheap. The gimmick consisted of a system of vibrator motors

²⁷⁶ Heffernan, *Ghouls, Gimmicks, and Gold*, 297–300.

²⁷⁷ Jon Lewis, *Hollywood v. Hard Core: How the Struggle over Censorship Saved the Modern Film Industry* (New York: NYU Press, 2000), Kindle Edition, loc. 3740.

(acquired from military surplus) that theaters could easily attach under their seats and projectionists could operate at the push of a button. Moreover, Columbia covered the cost of the technology itself—unlike early 1950s 3-D projectors and widescreen setups, Percepto was included in the cost of renting the film. At the appropriate moments of *The Tingler*, the button would be pressed, the motors would vibrate, and select audience members would feel a tingling sensation in the general area of their seat.²⁷⁸ Though ads for *Tingler* imply that all members of the audience will experience Percepto, only select seats were wired with motors—a fact not divulged until the patrons were in the seats. Thus, as a direct-address prologue to the film explained, only “certain members” of the audience would experience seat vibration.

The number of wired seats varied: at the August 4, 1959 Detroit premiere, taking place in the 3,500-seat Broadway Capitol theater, between 350 and 1050 motors were used.²⁷⁹ When *Tingler* debuted in Los Angeles on October 28, the L.A. Examiner reported that 300 of the 2,750 seats in the Hillstreet Theater were wired, while around 80 were wired in the smaller Hollywood Theater.²⁸⁰ Unlike 3-D, stereo sound, and widescreen, which had a fixed price for every theater no matter how big or small, Percepto could adjust its size and cost to the size of the exhibiting theater. Percepto was also a proprietary technology of Columbia pictures; it could be mass-produced as a product to exhibitors, with all profits going back to Columbia.

²⁷⁸ See “The Percepto Manual for The Tingler: What to Do and How to Do It,” Columbia Pictures, Corp., 1959.

²⁷⁹ Christopher Schaefer, “The Tingler,” 45.

²⁸⁰ S. A. Desick, “‘The Tingler’ Really Tingles.” *LA Examiner*, October 29 1959.

Though William Castle was known for making his films on tight production schedules and at relatively low cost, his gimmicks could cost Columbia nearly as much as his films. *Tingler* was shot for \$400,000, but the Percepto system—despite being repurposed from motors used to cool airplane radar—cost Columbia another \$250,000.²⁸¹ *Variety* estimated the entire budget for the film, including promotion and gimmicks, would reach \$1,000,000.²⁸² However, Percepto built from the 3-D boom’s shortcomings to sell theaters a cheaper and easier-to-provide gimmick. If exhibitors had already upgraded their theaters with stereo sound during the tech boom of the early 1950s (sometimes termed “surround sound” at the time), and were accustomed to installing new technology in their theaters, this translated to little extra cost. At the same time, it cut out independent technology developers like Polaroid, who had profited from the sales of 3-D glasses, ensuring that all tech profits would go to Columbia. What small-time exhibitors did not pay in dollars for Percepto, they were expected to provide in labor instead, installing the system themselves, implementing it manually according to a Columbia-provided cue sheet, and orchestrating an in-theater stunt recommended by Columbia.

For subsequent runs of the film, Columbia issued a manual to theaters along with a one-size-fits-all Percepto set, including 100 buzzers to be installed “in rows most frequently occupied.”²⁸³ The manual addresses theater managers with its instructions on Percepto installation, though William Castle’s memoir recalls “teams of special effects men . . . sent

²⁸¹ “Goosepimple Saga With Seats to Suit: William Castle’s New ‘Percepto’ Gimmick—Message Readies Patrons from Below,” *Variety Weekly*, August 5, 1959.

²⁸² “Goosepimple Saga.”

²⁸³ “The Percepto Manual for The Tingler,” 3.

all over the country to install the complicated equipment.”²⁸⁴ “The Percepto Manual for The Tingler” portrays the installation process as relatively simple, and lists cues for when the buzzers will be activated alongside sound cues for the projectionist. Of course, if exhibitors chose, they could forego Percepto or parts of it, a course not recommended by Columbia. In a letter addressed “Dear Theater Manager” that opens the “Percepto Manual,” Columbia marketing executive Paul N. Lazarus wrote:

Everywhere it has played, the box office results of THE TINGLER have been sensational. The prime reason for the success of this film is the full utilization by you, the theater manager, of all the various promotional elements and devices that have been specifically designed to make THE TINGLER the most talked-about picture of the year. This manual has been specifically prepared to provide you and your staff with the necessary information required for heightening audience participation in your theater, therefore increasing attendance. We have provided you with the package, and we are sure that you will take full advantage of it.²⁸⁵

This letter employs the spine-tingler discourse to induce theater owners to put in the labor required to use Percepto. Throughout the letter, Lazarus emphasizes that Columbia is doing theater managers a favor in providing all the elements of Percepto along with the film. The letter takes pains to argue to theaters that audience participation of the type fostered by Percepto will make them money, linking “audience participation” with “increasing attendance.” It also casts Percepto in the language of technological innovation: “all the various promotional elements and devices” provided by Columbia along with *The Tingler*

²⁸⁴ “The Percepto Manual for The Tingler,” 2; William Castle, *Step Right Up!*, loc. 3060.

²⁸⁵ “The Percepto Manual for the Tingler,” 2.

have been “specifically designed” to maximize profit. Finally, in a firm yet passive suggestion, Lazarus concludes, “we have provided you with the package, and we are sure you will take full advantage of it”: Columbia has gone through all the preparations to provide a perfectly packaged, specifically-designed promotional campaign, and it is the least theater managers can do to “take full advantage” of this opportunity. Throughout this letter, Columbia stresses its concern for the interests of theaters, returning to the spine-tingler discourse’s old promise of high profit from low cost. Instead of paying money for costly new technologies, theater managers are being asked the small favor of putting in the legwork to implement the Percepto system, labor that is framed as being for their own benefit, as they are simply taking advantage of the system Columbia so generously developed and provided.

The implementation of Percepto in theaters was one point of criticism for contemporary journalists. In an early discussion of *Tingler* prior to its release, *Variety Weekly* reported on uncertainty surrounding the relationship of exhibitors to Percepto: “According to Castle, Columbia, which is releasing the film, hasn’t as yet determined how exhibitors will be charged for the installation of the tingling gimmicks. It may be part of the rental cost or, similar to Emergo, the kits may be sold outright to theaters.”²⁸⁶ Though installation was eventually included with the cost of film rental, Jack Moffitt of the *Hollywood Reporter* noted that this did not mean all Percepto experiences would be equal. He wrote, “There is also a fainting girl in the audience who is rushed out on a stretcher by two young men. This will be served to the more important theaters. But its application to other houses seems a little vague at the moment. It may be that, like Kafka’s funerals, there will be a sliding scale with one man lugging the girl out in second-runs and the prostrate maiden carrying herself

²⁸⁶ “Goosepimple Saga.”

out in neighborhoods and small towns.”²⁸⁷ Philip Scheuer of the *LA Times* was even more skeptical, writing of the gimmick’s inapplicability to drive-ins, “How [Percepto] can be rigged up to your car I have no idea—and care less.”²⁸⁸

While Columbia marketed Percepto to theaters as a more egalitarian alternative to the 3-D boom of the early 50s—which allowed bigger theaters to realize small profits, but excluded or sucked dry small-time exhibitors—these comments point to the inequality of the Percepto system. Though the small mass-produced Percepto set was framed as a favor to second-run theater managers from a studio that truly wanted to offer them an opportunity, it also represented a request for labor and control over small theaters. Meanwhile, first-runs of *Tingler* came with Columbia-supervised Percepto installs and even Columbia-produced theater gimmicks. Nevertheless, Percepto allowed smaller theaters to participate in the technological promise of the early 1950s tech boom at relatively low cost to themselves, using a mass-produced system that delivered some of the thrill of bigger theaters to suburban or small-town audiences. This mass appeal may account for some of the enduring fan power of *Tingler*, as well as its commercial success.

Financial success cannot fully account however, for the particular fan narrative surrounding *Tingler*. According to this narrative, Castle, actually a Hollywood player whose gimmicks were marketed as a potential savior to the US film industry, was a trickster and outsider to dominant film and technology production. While contemporary accounts of *Tingler* may diminish Percepto’s “innovation,” fans of Castle glory in the low technology of

²⁸⁷ Jack Moffitt, “Wm. Castle Prod’n Humorously Jabs Seat of Emotions: ‘The Tingler,’” *Hollywood Reporter*, 29 July 1959.

²⁸⁸ Scheuer, “‘Tingler’ Gimmick Picture.”

his gimmicks. John Waters writes, with nostalgia: “What’s happened to the ludicrous but innovative marketing techniques of yesteryear that used to fool audiences into thinking they were having a good time even if the film stunk? Did the audiences care? Hell no. They may have hated the picture, but they loved the gimmick, and that’s what they ended up remembering anyway.”²⁸⁹ According to Waters, Castle’s gimmicks were innovative *marketing techniques*, used to “fool audiences” into enjoying a film whose merits as film art were dubious. Castle’s personality organized dubiously innovative technologies and dubiously artistic directing under a single well-marketed *experience*. This marketing experience used touch, affect, and embodiment together to produce a show more similar to early “spine-tingling” films of the cinema of effects, than to the narrative star vehicles promised by classical Hollywood.

This innovative marketing strategy drew from the road shows associated with exploitation films like *Mom and Dad* (dir. William Beaudine, 1945), though Castle was nothing like an exploitation filmmaker. Eric Schaefer describes exploitation film as a shadow industry to Hollywood operating between 1919 and 1959, “segregated from the mainstream” and “targeted for elimination by leaders of the film industry and moral watchdogs.”²⁹⁰ Schaefer also recognizes that critics and historians have often conflated the particularities of exploitation film with Hollywood B-movies and other low-budget efforts, and criticizes this tendency.²⁹¹ Unlike the independently-produced road show films described by Schaefer’s

²⁸⁹ Waters, “Whatever Happened to Showmanship?” 4.

²⁹⁰ Eric Schaefer, “*Bold! Daring! Shocking! True!*”: *A History of Exploitation Films, 1919–1959* (Durham, NC: Duke University Press, 1999), 432.

²⁹¹ Eric Schaefer, “*Bold! Daring! Shocking! True!*” 437.

history of exploitation film, Castle's gimmick films were produced within the Hollywood studio system. Castle was certainly never "targeted for elimination" by critics, the film industry, or even moral watchdogs, and was in fact moderately approved by The National Legion of Decency, which gave *Tingler* the relatively prestigious grade of A-II, or "suitable for adults."²⁹² However, Castle capitalized on audiences' desire for an exploitation-like experience with roadshows to promote *Macabre* and *House on Haunted Hill* that resembled exploitation film marketing tactics. This appropriation of exploitation film marketing to draw teen audiences to movie theaters was welcome within the industry: trade journals praised Castle for his money-making ability and ingenuity, and Columbia profited in the 1950s and early 1960s from a combination of film, television and radio holdings.

These economic tensions within the film industry of the 1950s and 60s do not fully account for the emotional impact of Castle's films to midcentury, mostly-male teens. The memory of *Tingler* as boundary-breaking is better explained by the film's exploration of tensions between different models of affect and different models of masculinity during this time period. While as "Feel Around" and the "Schlaaang Super Seat" address anxieties about spectator masculinity and sexuality through their parodies of theater seat technologies being developed outside Hollywood, *Tingler* provided both a theater seat technology and its parody. Not only did Percepto vibrate the bottoms of its spectators in a thrilling way, it also presents dueling patriarchal figures and dueling models of authorship and authority in Vincent Price and William Castle. The textual analysis below traces the haptic impact of

²⁹² National Legion of Decency, *Motion Pictures Classified by National Legion of Decency: A Moral Estimate of Entertainment Feature Motion Pictures* (New York: National Legion of Decency, 1959), 244, Media History Digital Library, accessed March 31, 2014, archive.org/details/motionpicturescl00nati.

Tingler through these two patriarchal “daddies,” and their different ways of touching filmgoers.

Two Daddies: William Castle and Vincent Price

The Tingler presents two patriarchs: William Castle and Vincent Price. Both employ over-the-top tactics like cigar-munching, lab-coat-wearing, and booming voiceovers to demonstrate their masculinity, but both are easily toppled in this regard by a clever spectator. Both are masters of science and technology: Vincent Price plays Dr. Warren Chapin, an expert on human fear whose experiments on cadavers have led him to discover “the Tingler,” a cross between a centipede, a crustacean, and a piece of fecal matter that lives in the human spine. William Castle plays himself, the director of *The Tingler* and the orchestrator of Percepto, the spine-tingling gimmick portrayed in advertising for the film as the very latest in theater technology. The film is framed by authoritative monologues by Castle and Price, whose instructional tone practically dares viewers to defy them. Is it any surprise, therefore, that fans of Castle’s work still remember his gimmick pictures as spaces of smirking youthful rebellion? While Peiss describes young women stepping outside traditional roles to attend early nickelodeons, *Tingler* represents the newly masculinized space of teen culture represented by post-WWII cinema. Women, in the plot and the fanlore production history of *Tingler*, are seen as foils to the playful antics of male producers and consumers. The film opens space for a critique of both science and culture, and particularly of the nascent technology culture that has only become more powerful since *Tingler*’s release. Castle’s embrace of the gimmick, a discourse popularly used to cast doubt on the power of new technology, and his willingness to lampoon figures of serious science, including both Price’s

scientist character and his film director persona, may account for the enduring appeal of the film.

Tingler opens with a wide shot of a blank theater screen. A cast shadow announces the arrival of William Castle, dressed in a neat suit with a pocket square. He stands calmly before the screen, arms at his side, and delivers this speech:

I am William Castle. The director of the motion picture you are about to see. I feel obligated to warn you that some of the sensations—some of the physical reactions—which the actors on the screen will feel [he smiles], will also be experienced, for the first time in motion picture history, by certain members of this audience. I say “certain members” because some people are more sensitive to these mysterious electronic impulses than others. These, uh, unfortunate, sensitive people will at times feel a strange tingling sensation [he smiles again]. Others will feel it less strongly.

As the film cuts to close-up, Castle continues:

But don't be alarmed. You can protect yourself. If at any time you are conscious of a tingling sensation, you may obtain immediate relief by screaming. Don't be embarrassed about opening your mouth and letting rip with all you've got. Because the person in the seat right next to you will probably be screaming too. And remember this: a scream at the right time may save your life.

This direct-address prologue presents to the audience the chief qualities of *Percepto* and the chief narrative elements of *Tingler*, and guides their participation in the film. First, Castle instructs viewers to experience *Percepto* as a demonstration of a technological breakthrough, informing them that they will be treated to a unique experience “for the first time in motion picture history.” The appearance of the director standing before a theater screen and speaking

to viewers in direct-address, as if appearing in person before the screening, also creates an aesthetic of education and technological demonstration. Second, the prologue offers a narrative explanation for the choice to wire select seats, encouraging viewers to locate the “mysterious electronic impulses” of Percepto within themselves—their natural sensitivity—rather than the presence of a motor under their seat. Thus, Percepto is described both as technology—a breakthrough—and as magic—“mysterious electronic impulses” to which only certain people are susceptible. This discussion of audience susceptibility to electronic impulses also recalls the medical aesthetic of some exploitation film.

Finally, in his closeup, Castle offers instructions to viewers about how to respond to the technomagic of Percepto: “you may obtain immediate relief by screaming.” The instruction to scream in a horror film may seem redundant, as the depiction of screaming and the affective manipulation of the audience into screaming are both key elements of the horror genre. However, the discourse of the prologue, the gimmick of Percepto, and a visual opening depicting a group of screaming faces following this speech, all seem to reassure viewers of Castle’s invitation: “Don’t be embarrassed about opening your mouth and letting it rip with all you’ve got.” Though viewers are positioned as having to overcome their inhibitions to appropriately scream in the horror film, Percepto’s tingles offer a solution to this timidity in the form of a touch-based cue to scream at a socially-sanctioned moment, in a group, as a matter of ostensible life and death. Thus Mikita Brottman calls the process of screaming during a screening of *Tingler* a “socially endorsed ritual of mass cathexis.”²⁹³

²⁹³ Mikita Brottman, “Ritual, Tension, and Relief: The Terror of ‘The Tingler,’” *Film Quarterly* 50, no. 4 (Summer 1997): 2-10. DOI: 10.2307/1213440, p. 65.

The prologue to *Tingler* also implies an unintuitive hierarchy of audience members. While in a non-Percepto horror film, audience members might pride themselves on not screaming, therefore not being susceptible to the film's affective manipulation, Percepto offers a technological framework whereby the screaming members of the audience are its highest-status members. Those "unfortunate sensitive people" Castle describes, barely concealing a grin, are also among the ranks of those in the know enough to pick a Percepto seat. John Waters describes with pride how he "would run through the theater searching for the magical buzzers" as a boy, demonstrating his enthusiasm for and knowledge of "the magic of Percepto," along with its relatively simple technology.²⁹⁴

This hierarchy is also gendered. While one ad for *Tingler* exclaimed, "Bring your date and watch *her* tingle!" (emphasis mine), this opening showcases images of screaming men—the male screaming head that occupies the center of the visual intro's screen echoes the image of a screaming prisoner awaiting execution that begins the film's narrative. Though, as Clover and Williams note, the screaming body in the body genre of horror is usually coded female, *Tingler* is at pains to provide an environment in which men are screaming too, perhaps to allow young boys the excuse to engage in the potentially gender-bending activity of screaming in the socially-sanctioned environment of the horror film. Thus, the "mass cathexis" described by Brottman in *Tingler* theaters has a special appeal to male film fans like Waters, whose declaration of *Tingler* as the ultimate representation of Art in the cinema may have been in part due to the social environment of male emotional release the film and its gimmick provided. *Tingler* offers fans an opportunity to consume a form of

²⁹⁴ Waters, "Whatever Happened to Showmanship?" 17.

masculinity and expertise that enjoys open displays of emotion, if only as a release in a ritualized context.

Screaming is also practical in the world of *Tingler*. When Dr. Chapin performs an autopsy on the body of a deaf-mute woman who has died of fright (Judith Evelyn), he pulls from her body a large tingler that has snapped her spine. Because the woman was unable to scream, her tingler grew out of control. Thus unleashed, the tingler causes mayhem for the remainder of the film, including running loose in a silent movie theater. While a female character is killed by the tingler due to her inability to scream, men in the narrative, including Dr. Chapin himself, must learn to scream to free themselves of this parasite. Screaming thus framed as a weapon of war against an attacking beast, men in the narrative and in the theater must both learn to scream and scream at the appropriate moment.

Vincent Price's first monologue comes during the escape of the tingler, while it runs rampant through a silent movie theater where a teen boy and girl are on a date. Images of audience members in the diegesis and shots of the silent movie screen—perhaps the same screen seen blank and unlit in the prologue—are intercut with close-ups of the tingler's progress through the theater. First, the creature rustles through the velvet curtains surrounding the screen. Next, it crawls across the stage, undetected in the dark. The film then cuts to show the teen couple. The girl, leaning forward, is focused on the screen, while the boy repeatedly reaches his arm around to embrace her, and, in a common date-night representational trope, each time her boyfriend touches her, the girl removes his arm. Disgusted by the boy's advances, the girl eventually changes seats, only to find herself the victim of a new parasite in the form of the creeping tingler. As the girl engages rapturously in shot-reverse-shot engagement with an on-screen action sequence, viewers of *Tingler* are also

treated to a mini-chase as inserts of the tingler reveal its slow progress toward the unsuspecting girl's ankles. This trope of teen seduction was common in teen thrillers of this time period, becoming symbolic of the 1950s and 60s in general. *Michael Jackson's Thriller* (dir. John Landis, 1983) recreates this theater scene along with the car date sequence that opens *The Blob* (dir. Irvin Yeaworth, 1958), cementing its place in midcentury nostalgia culture. Finally, the girl kicks off the tingler with a scream, and other members of the audience begin to react. The film cuts to show Dr. Chapin and the theater owner Ollie (Philip Coolidge) reacting to the screams. As Dr. Chapin switches off the house lights in the diegetic silent movie theater, the true audience participation elements of *Tingler* begin.

“The Percepto Manual for the Tingler” instructs exhibitors that as Dr. Chapin turns the silent theater's lights on, they should turn their house lights on.²⁹⁵ At this moment, theaters with stereo sound would switch from stage speakers to surround sound, and a planted actress in the audience would scream, faint, and be carried off by theater employees dressed as medical personnel.²⁹⁶ Dr. Chapin's announcement over a black screen, rendered in stereo, would thus apply both to the diegetic world of the film and the in-between world of the exhibiting theater:

Ladies and Gentlemen, there is no cause for alarm. A young lady has fainted. She is being attended to by a doctor, and is quite all right. So please remain seated! The movie will begin again right away. I repeat, there is no cause for alarm.

²⁹⁵ “The Percepto Manual for the Tingler,” 11.

²⁹⁶ “The Percepto Manual for the Tingler,” 11–12.

The next screen image, in which Dr. Chapin switches the lights back off, also accompanies a cue to switch theater house lights off and return to stage speakers.²⁹⁷

For a few minutes, the screen of the diegesis and the screen of *The Tingler* are identical, as both show a sequence from the diegetic silent film in which, as a cue card declares ironically, “Responsibility, carrying his broken body, drove him on.” Finally, the film is interrupted on both the diegetic and exhibition screens by the appearance of the tingler crawling across the projector’s lens. Thus blown up to the size of the screen, the tingler’s insect-like body crawls in black silhouette across a white background. The soundtrack is filled with audience member murmurs that theaters were supposed to reproduce in surround sound.²⁹⁸ The screen once again goes black. This time, the voice of Vincent Price announces, “Ladies and Gentlemen, please do not panic! But scream! Scream for your lives! The Tingler is loose in this theater!” Screams begin to fill the soundtrack as Price’s voice announces, “And if you do not scream it may kill you! Scream! Scream! Keep screaming! Scream for your lives!” The voice of an ostensible male audience member on the film soundtrack exclaims: “It’s here! It’s over here! Help! Help! Oh my God it’s in the seat!” Finally, Vincent Price’s voice says: “Ladies and Gentlemen. The tingler has been paralyzed by your screaming. There is no more danger. We will now resume the showing of the movie.” *Tingler* resumes with Dr. Chapin and Ollie racing toward the projection booth, where the projectionist, strangled by the Tingler, finally finds the breath to scream and release the monster’s grip. Arriving in the booth to see a paralyzed tingler on the floor, Dr. Chapin proclaims, “you must have screamed just in time.”

²⁹⁷ “The Percepto Manual for the Tingler,” 11.

²⁹⁸ “The Percepto Manual for the Tingler,” 11.

While Castle's appearance before the film diegesis has the flavor of an early-cinematic carnival hawker or more middlebrow technological demonstration, Vincent Price's voiceover has the bourgeois quality of Coronet instructional films, used in classrooms from 1946 through the early 1970s.²⁹⁹ However, while Coronet films might instruct teens on proper eating habits, attitudes likely to win friends, and behavior appropriate for dates, Price's instructional monologue tells horror fans something they already know: how to scream. Just as John Waters gleefully recalls throwing popcorn boxes at Emergo's underwhelming plastic skeleton and decoding the technology behind *Tingler's* mysterious vibrations, we might imagine young people screaming and laughing in screenings of *Tingler*, choosing for themselves whether to follow Price's supercilious and unnecessary advice. As Lynn Spigel argues, the late 1950s mediascape was saturated with crises over masculinity and science, as the Soviet Union's successful satellite Sputnik (1957), and postwar suburban domesticity cast doubt upon US superiority in both categories.³⁰⁰ While these were certainly sensitive topics to late-50s adults, *Tingler* offers a space for young boys to laugh in the face of these concerns, poking fun at the ultimate inefficacy of scientific and technical masculinity.

The presentation of booming patriarchs as the face of technological expertise and demonstration present throughout *Tingler's* narrative is alluring but deceptive. Castle, chewing a prominent cigar, appears as the patriarchal face of the film's audience

²⁹⁹ Many Coronet instructional films are available through the Prelinger Archives. See "Coronet Instructional Films," Prelinger Archive, Internet Archive, accessed 31 July 2014, archive.org/details/coronet_instructional_videos.

³⁰⁰ Lynn Spigel, "From Domestic Space to Outer Space: The 1960s Fantastic Family Sitcom," in *Welcome to the Dreamhouse: Popular Media and Postwar Suburbs* (Durham, NC: Duke University Press, 2001), 107–140, 108–116.

manipulation, while Vincent Price’s deep voice provides instructions to scream in a more respectable style. However, it is important to keep in mind that the technology behind Percepto was the work of a woman, Dona Holloway. Despite the no-girls-allowed face of science in *Tingler*’s diegesis—in which Price and a male assistant (Darryl Hickman) frequently retreat from their respective wives into a secret lab to perform their experiments, including one Price performs on his own unwilling wife (Patricia Cutts)—the technical breakthrough of Percepto was developed by Holloway, and installed by Castle and Holloway together.

Fan accounts and urban legends surrounding *Tingler* relish Percepto’s ability to shake up stiff adults, both male and female. William Castle recalls in his autobiography how a projectionist tested Percepto on a mostly-female Boston audience for the Audrey Hepburn picture *A Nun’s Story*, writing “During a matinee filled with women, the bored projectionist decided to test the ‘Tingler’ equipment. He pushed the switch during a scene where Hepburn and the nuns were praying. The proper Bostonian ladies got the shock of their lives.”³⁰¹ He also recalls a Philadelphia truck driver who “ripped out the entire seat in a rage, and threw it at the screen.” Castle writes, “Five ushers had to control him.”³⁰² Fan accounts of *Tingler* tend to repeat these two stories, including Waters’s article. Waters frames the Philadelphia truck driver anecdote in terms of Percepto’s technological failure, writing, “naturally there were problems.”³⁰³ Of the older women watching *A Nun’s Story*, Waters quips, “I’m sure Audrey Hepburn never got such a vocal reaction before or after this ‘electrifying’

³⁰¹ Castle, *Step Right Up!*, 3078–3092.

³⁰² Castle, *Step Right Up!*, 3078.

³⁰³ Waters, “Whatever Happened to Showmanship?”, 17.

screening.”³⁰⁴ Christopher Schaefer’s piece for *Mondo Cult* disagrees. Citing his own research on the films preceding *Tingler* at the Pilgrim Theater in Boston, Schaefer argues *A Nun’s Story* was not even being shown. “Let me make one thing perfectly clear,” he writes, “Castle is a great raconteur, one of the best. It would have been nice if it actually happened, but it didn’t.”³⁰⁵ As this article’s tone suggests, fans still can’t resist the allure of poking holes in Castle’s thin façade of expertise.

Ultimately, *Percepto* offers a space of masculine rebellion against patriarchal authority, represented through the figure of the scientist or technology expert, and the stiff and proper adult. The patriarchal figures of William Castle and Vincent Price loom large in *Tingler* and *Percepto*’s history: Price’s performance style, affect, low voice and semi-aristocratic demeanor recall the world of “science” and “innovation” contrasted with Castle’s work in the *Tested* account cited above. William Castle’s schmaltzy persona wavers between impersonating a technological demonstrator and lampooning the very idea of new cinema technology—his snickering prologue delivery suggests even Castle doesn’t believe what he is selling. Both Castle and Price represent patriarchs who are easily overthrown, allowing space for affective distance, along with potentially gender-bending physical sensation and emotional display from the audience. Price’s didactic tone has no real authority, as his scream break is ultimately dependent on audience participation to work. The low technology of Castle’s gimmicks has an enduring appeal to fans’ desire to experience physical stimulation in a low-tech environment, where ultimately they have complete control.

³⁰⁴ Waters, “Whatever Happened to Showmanship?”, 17.

³⁰⁵ Christopher Schaefer, “The Tingler,” 47.

Today's Tingleers

Tingler is a case study with many implications for contemporary film exhibition and the development of touch technologies in movie theaters. As ever-proliferating tech companies present new interfaces and exhibition technologies designed to immerse the body in the media experience, questions of gimmick vs. technological innovation, cheap amusement vs. luxury product, and patriarchal authority vs. youthful wiseacre (or hacker) remain at the forefront of media reporting and analysis. Examining the spine-tingler discourse, Percepto, and Castle's legacy in a larger history of appeals to the body in film and media exhibition may help to understand a battle over the status of cinema that continues to this day in discussions of new film exhibition devices. Is cinema a bourgeois commodity appropriate to the realm of the scientific demonstration, or is it a gimmick—a cheap amusement that provides a heterosocial environment for youth and the working class? Are theaters a platform for high-powered tech companies and educated scientists like Dr. Warren Chapin/Vincent Price to test their innovations, or for carnivalesque hawkers turned marketing innovators like William Castle to make their fortune? Touch, simultaneously associated with the lowbrow realm of the body and the tech-culture dream of virtual reality immersion, has become a chief site for battles over class, technology, masculinity, sexuality, and boundaries that recall those of the late 1950s. William Castle's technological innovation was to produce gimmicks on purpose, in order to maintain his films' status as cheap and popular, and to create a unique experience packaging proto-interactivity, physical stimulation, and narrative and genre thrills together. Mobilizing the popular discourse of high technology, Castle's gimmicks lampooned

the technology developers that cost exhibitors, filmgoers, and even Hollywood so much money in the early part of the 1950s.

Many of the problems film faced in the 1950s have intensified today. The ubiquity of screens and the incorporation of video into the larger apparatus of digital (multi)media force movie theaters to compete with a variety of exhibition venues public and domestic. As suburban theater screens get larger, and some theaters adopt moving seat and other “4D” technologies like D-BOX and 4DX, the environment of the film theater and that of the theme park converge in an “expanded cinema” beyond the imagination of mid-20th-century media futurists.³⁰⁶ Authorship, in the form of copyright, has expanded to become a chief source of value for media corporations, allowing massive conglomerates across media to exploit characters and fictional worlds through film, television, and theme parks. Thus Disney’s recent acquisition of the *Star Wars* franchise has led to the rapid development of two new films in the series, but it has also driven development of two new “*Star Wars* lands” in Disneyland and Walt Disney World.³⁰⁷

Disney’s engagement with haptic authorship and haptic cinema technology has also led to the permanent revival of *Captain EO*, the 1986 4D film starring Michael Jackson, produced by George Lucas, and directed by Francis Ford Coppola (the film was temporarily revived in 2010 following Jackson’s death).³⁰⁸ *Captain EO* was the most expensive short film

³⁰⁶ See Gene Youngblood, *Expanded Cinema*.

³⁰⁷ See Germain Lussier, “You’ll Get to Fly the Millennium Falcon at Disney’s Two New *Star Wars* Lands,” *io9* 25 April 2016, accessed 22 September 2016, io9.gizmodo.com/youll-get-to-fly-the-millennium-falcon-at-disneys-two-n-1772962563.

³⁰⁸ Drew Taylor, “He Is Here to Change the World (Again): Captain EO returns to Epcot,” *Oh My Disney* 24 July 2015, accessed 22 September 2016,

ever made when it premiered at Tomorrowland September 12 1986; the *LA Times* reported the 17-minute film cost over \$20 million to produce.³⁰⁹ However, *EO* was much more than a short film, featuring a fiberoptic star field surrounding the screen, a laser light show and moving seats. Despite its star-studded cabinet of film and performance auteurs, *EO* did not impress critics. Carl Miller argues, “*Captain EO* was never designed to be a film so much as a 17-minute amusement park ride . . . Whatever failures *Captain EO* may demonstrate as a feature film are presumably offset by its contribution as a successful Disney attraction.”³¹⁰ Even the inclusion of Lucas and Coppola, directors previously considered within the auteur tradition, signaled *EO*’s commercial, rather than artistic aspirations. As Timothy Corrigan argues, by the 1980s, the figure of the film author had “rematerialized . . . as a commercial performance of the *business of being an auteur*.”³¹¹ Corrigan cites George Lucas as a “commercial auteur,” while he calls Coppola an “auteur of commerce.”³¹²

Corrigan does not cite Michael Jackson as a 1980s film auteur, though the artist has today become *EO*’s most recognizable authorial presence. Jackson could nevertheless be seen in retrospect as an archetypical late-20th century “haptic auteur” of the affective,

ohmy.disney.com/insider/2015/07/24/he-is-here-to-change-the-world-again-captain-eo-returns-to-epcot/.

³⁰⁹ Jack Matthews, “Close Encounter of the 3-d Kind In ‘Captain Eo,’” *LA Times*, September 10 1986, accessed 22 September 2016, articles.latimes.com/1986-09-10/entertainment/ca-13189_1_film-event.

³¹⁰ Carl Miller, “‘We are Here to Change the World’: *Captain EO* and the Future of Utopia,” in *Michael Jackson: Grasping the Spectacle*, ed. Christopher R. Smit (Grand Rapids, MI: Ashgate, 2012), 117–29, 119.

³¹¹ Corrigan, “The Commerce of Auteurism,” 98.

³¹² Corrigan, “The Commerce of Auteurism,” 100–01.

kinesthetic and cutaneous. The 2010 Ubisoft game *Michael Jackson: The Experience*, a Michael-Jackson-themed iteration of the *Just Dance* series of motion games, invites gamers to submit their bodies to measurement as they attempt to reproduce Jackson's signature dance moves. The game uses technologies including Nintendo's Wiimote and Microsoft's Kinect to computerize a longstanding interactive element of Jackson's *oeuvre*: the precise imitation of dance moves portrayed in his music videos.

EO's moving seats do not help viewers with this difficult haptic engagement, though they do bounce up and down in the manner of car hydraulics during the final song number, "We Are Here to Change the World." Though *EO* generally uses moving seats to intensify the film's visuals, this moment features haptic force feedback that mimics the rhythm of the soundtrack rather than duplicating the action on-screen. Films viewed in D-BOX, such as *Mad Max: Fury Road* (dir. George Miller, 2015), retain some soundtrack-imitation elements, with seat vibration accompanying the revving of a car engine, for example. However, the haptic aesthetic of D-BOX in general adopts a more audiovisual approach to the spine-tingle of cinema than *Tingler*, focusing on making its haptic effects invisible in order to heighten the more properly "cinematic" senses of kinesthesia and affect.

The spine-tingle may be most relevant to understanding today's haptic cinema in its absence. *Tingler*'s use of vibration to signal an emotional jolt is a literal "spine-tingler" that could suggest ways "4-D" could reach greater artistic potential, outside simply Mickey-Mousing audiovisual film elements. Could touch technologies in theater seats communicate in more complex ways? Looking to early haptic experiments such as *EO* and *Tingler* point to different directions today's theater seat technologies might have taken, and suggest new ways forward. Virtual Reality, in the form of headsets like Oculus Rift, Samsung Gear VR, and

Google Cardboard, show how contemporary “haptic” technologies may not employ these cutaneous tingles at all. Like dominant conceptions of the cinema, VR aims to affect the body kinesthetically, proprioceptically and affectively, but not cutaneously. However, the persistent fantasy of sex in virtual reality has led successive generations of innovators in the field of *teledildonics* to design fictional or real cutaneous interfaces for virtual reality, from cybersuits to be used with adult chatrooms, to sexual videogame controller hacks, to Internet-connected sex toys. The following chapter demonstrates the importance of haptic media in the emergent field of VR by continuing this chapter’s exploration of the gender and sexual stakes of cutaneous haptics.

Chapter 4. Virtual Reality and Teledildonics: Haptic Technology and the Future of Sex

In 1992, Lisa Palac, editor of the softcore technophile magazine *Future Sex*, found herself swept up in a wave of enthusiasm for technologies that did not exist. *Future Sex* issue 2 featured one of the most famous visual depictions of what some have called *teledildonics*, futuristic lingerie suggestive of haptic technology interfaces for cybersex in virtual reality. The designs featured in the magazine were campy, over-the-top, and digitally rendered, part of a parody feature co-created by Palac and Mike Saenz, the game designer behind the early sex simulator *Virtual Valerie* (1993). Saenz and Norm Dwyer produced 3-D renderings of the designs Palac had doodled on the back of a bar napkin, and Saenz described them with his tongue firmly in cheek in a four-page article entitled “The Love Machine.”³¹³ The article begins with the giant heading “CYBERSEX!” and features a humorous photo spread of the lingerie, as “worn” by hammy models, and as displayed alongside technobabble descriptions of each element such as “male gloves with TDV” (tactile data video), and “Magic Hands CSex 2 bra.” “Slip into your gloves, helmet, data-shorts, and get ready for a real joy ride!” Saenz wrote.³¹⁴ The article also parodies hyperbolic claims about the future of virtual reality and sexuality, including a timeline of “advances in cybersex technology up to the year 2200,” from “first-generation cybersex” (example: *Virtual Valerie*) to “seventh-generation cybersex:

³¹³ Mike Saenz, “The Love Machine,” *Future Sex 2* (1992), 28–31, Internet Archive, accessed 27 September 2016, archive.org/stream/Future.Sex.Issue.02. *Virtual Valerie* was a single-player game depicting a date with Valerie, sometimes described a form of “cybersex” itself, as in Philip Robinson, Nancy Tamosaitis, Peter Spear, and Virginia Soper, *The Joy of Cybersex: The Underground Guide to Electronic Erotica* (New York: Brady Publishing, 1993).

³¹⁴ Saenz, “The Love Machine,” 29.

cyborgasm,” when “cybersex systems become affordable surgical implants” and are “accepted by many as a vast improvement over the real thing.”³¹⁵

The article is clearly both a humorous look at the optimism of some in the early 1990s about the future of cybersex and virtual reality, and a plug for real “cybersex” technologies of the time, including Saenz’s game and Palac’s recent 3-D audio CD release *Cyborgasm*. However, because this second issue of *Future Sex* faced publication difficulties and was not widely circulated, the tone of the article was quickly eclipsed by the strength of the cover image, and issue 2 of *Future Sex* became the magazine’s “landmark issue.” Journalists flooded the *Future Sex* offices asking to try the cybersuits depicted on the cover, not realizing they were 3-D renderings, entirely fictional, and unavailable to physically touch.³¹⁶ This confusion between theoretical and physical innovation has followed cybersex technology since Howard Rheingold first coined “teledildonics” in a 1990 post to the Whole Earth ‘Lectronic Link (WELL).³¹⁷ As Rheingold recounts in his 1991 book *Virtual Reality*, though the article was purely speculative, he was approached by a German corporation about designing and producing teledildonics, as if he were ready to put teledildonics into development as commercial products! Teledildonics had become what we would now call an

³¹⁵ Saenz, “The Love Machine,” 29. See also Lisa Palac, *The Edge of the Bed: How Dirty Pictures Changed My Life* (New York: Little, Brown and Company, 1998), 94.

³¹⁶ Palac. *The Edge of the Bed*, 99.

³¹⁷ Howard Rheingold, “Teledildonics: Reach Out and Touch Someone,” *Mondo 2000* (Summer 1990), JaneFader.com, Accessed 25 June 2015, janefader.com/teledildonics-by-howard-rheingold-mondo-2000-1990/.

Internet meme, a concept so appealing and so shareable that it would spread with or without Rheingold's consent or control.³¹⁸

However, the term teledildonics may also be applied to a wide range of physical products both commercial and noncommercial, from the cybersex innovations of *Virtual Valerie* and *Cyborgasm*, to hacker projects like Kyle Machulis's *VSex* (2005) and Noah Weinstein and Randy Sarafan's *Joydick* (2009), to adult novelty products claiming the term like *RealTouch* (2008–2015) and *Kiiroo* (2013–), and sex toy designs that would rather not be classified this way, like *Lioness* (Indiegogo 2016).³¹⁹ This chapter traces the fan narrative, and technological development category, of teledildonics, as a story about the desire for cutaneous interfaces for virtual reality. Virtual reality, like film, has been a primarily visual technology, whose physical effects are imagined to be achieved through limited field of vision, leading to enhanced kinesthetic and proprioceptive senses in the viewer. However, teledildonics posit that virtual reality will be a cutaneous technology, and that this cutaneous technology will enhance, or at least radically transform our sexual experiences. Though these futuristic promises have so far proved inaccurate, as teledildonics have struggled to become commercially viable through successive patent litigations, they are nevertheless important to the growth of sexual culture on the Internet, and as a counterpoint to the very real forms of cybersex that have influenced human sexuality, from text chat on BBSes, to video chat, sex in videogame environments, and online dating. To follow Vincent Mosco's arguments about

³¹⁸ Howard Rheingold, *Virtual Reality: The Revolutionary Technology of Computer-Generated Artificial Worlds – and How it Promises to Transform Society* (New York: Simon and Schuster, 1992), 348–53.

³¹⁹ Liz Klinger, "Lioness Vibrator: Improve Your Sexual Experiences," *Indiegogo* 9 April 2016, accessed 27 September 2016, indiegogo.com/projects/lioness-vibrator-improve-your-sexual-experiences--2#/.

the digital sublime, while teledildonics has not yet transformed our lives with surgical implants that make sex better than “the real thing,” the different forms teledildonics have taken in the public imagination communicate much about what touch means in technophile and Internet culture, and what forms of sexuality are seen as appropriate in digital environments.³²⁰ This study of teledildonics demonstrates the importance of viewing digital culture in terms of the haptic, as haptic media. While teledildonics are sometimes jokes, and sometimes “vaporware” (technology that does not exist), the persistence of teledildonics’ parody, and the persistent desire to hear stories about teledildonic products and fantasies, shows the complexity of the long-challenged narrative that technology culture is disembodied, or wants to leave the body behind.

Teledildonics: Technology and Fandom



Figure 2: RealTouch on the fan show floor at AVN 2013 (Photo by the Author).

³²⁰ For more on the digital sublime, see Vincent Mosco, *The Digital Sublime: Myth, Power, and Cyberspace* (Cambridge: MIT Press, 2004).

Fans of science fiction are amply familiar with representations of fully immersive virtual sex, particularly as part of utopian and dystopian media futures. However, casual consumers of new media may be less familiar with teledildonics as a current trend in media and technology development, and how this category bridges the mainstream and adult media and technology industries. I first encountered teledildonics at the Adult Novelty Expo (ANE) in January 2012, when I observed two teledildonic devices—*RealTouch* and *VStroker*—dominating the center of the trade show floor. On one side, a fucking machine³²¹ stood next to a bed, as product representatives for VStroker demonstrated how their accelerometer attachment for Fleshlight penetrable masturbation sleeves³²² synced with the machine: as the product representatives moved a penetrable toy up and down, the dildo on the end of the machine thrust in and out in midair. VStroker was partnered both with Fleshlight, and with a webcam site dedicated to live fucking machine shows.³²³ On the other side of the aisle, product representatives for RealTouch invited attendees to feel the inner workings of their

³²¹ A “fucking machine” is a machine designed to penetrate the user, with a motor powering an appendage that moves in and out. I use the industry-accepted term “fucking machine” to designate an insertion-oriented sex machine, as opposed to non-insertable vibrators, a sex machine with a history dating to 19th century Western medical practice. Some use the terms “sex machine” and “fucking machine” interchangeably, as sex and penetration are often perceived as synonymous. Fucking machines have an avid fandom of their own, separate from but overlapping with teledildonics. For more on fucking machines and hobbyist culture, see Timothy Archibald, *Sex Machines: Photographs and Interviews* (Los Angeles: Process, 2005). For more on the history of vibrators as medical and sexual machines, see Rachel P. Maines, *The Technology of Orgasm: “Hysteria,” the Vibrator, and Women’s Sexual Satisfaction* (Baltimore: Johns Hopkins University Press, 1999).

³²² I have avoided referring to penetrable masturbation sleeves as “male masturbators,” though has been a common term, to indicate that not all consumers with a penis are men, and not all uses of penetrable toys involve men. In the adult novelty industry, the term “penetrable toys” has begun to replace “male masturbators,” to indicate this awareness.

³²³ As of this writing (2016), VStroker was partnered with Flirt4Free, along with fellow Fleshlight partnered product Kiiroo, but in 2012, their webcam site VSex was still active.

own penetrable toy with their fingers. The company's Joystick, a smart dildo with the modernist lines and restricted color palette of an Apple product, synced with the penetrable RealTouch device's inner belts, to produce a unique stroking sensation. Like VSex, RealTouch was partnered with a clip and webcam site, the Adult Entertainment Broadcast Network (aebn): the device could be synced either with aebn videos, or with webcam performers' use of the Joystick in live cam shows.

As a long-time fan of vibrators, dildos, and harnesses, among other adult novelty products, I had traveled to Las Vegas from Santa Barbara to explore how the industry that builds and markets sex toys might contribute to the field of haptic media. In particular, I was interested in how adult novelty designers and marketers advertised their touch-based products through primarily audiovisual media. However, I had never expected to encounter, at the center of the Adult Novelty Expo, networked sex toys marketed primarily to cisgender male imagined consumers and majority-female webcam performers. These instances of sexual touch being transmitted over the Internet with the use of high-tech peripherals was both a perfect example of mediated touch, and an indication of a surprising new trend in adult novelty away from the women-centered sex toy shops once described by Lynn Comella as incubators and distributors of new feminist and queer pornographies,³²⁴ and toward increasing crossover between the adult novelty industry and the technology industry, particularly toward the platform model of online media corporations. While “brick-and-mortar” retailers I spoke to at the 2012 and 2013 expos were skeptical about RealTouch,

³²⁴ Lynn Comella, “From Text to Context: Feminist Porn and the Making of a Market.” In *The Feminist Porn Book: The Politics of Producing Pleasure*, Tristan Taormino, Constance Penley, Celine Parreñas Shimizu, and Mireille Miller-Young, eds. (New York: The Feminist Press, 2013), 79–93.

being sold in physical stores was not part of RealTouch and VStroker's business model: both devices were sold on their own websites, which also acted as platforms for the distribution of clip and webcam content synced with the devices. At the same conference, a panel on the decline of brick and mortar adult stores advised these longstanding businesses to set up their own websites. In an adult industry dominated by free and pirated content, teledildonics companies advertised the future of sex to their interactive cam show viewers, while teledildonics-enabled distribution platforms advertised their technologies to prospective models and clip owners as a way to add "un-pirate-able" value to content.³²⁵

Though teledildonics are sometimes positioned in tech journalism and marketing rhetoric as the inevitable future of sex, these technologies have been difficult to develop and sell, due to a persistent patent from 1998 (issued 2002) claiming ownership of the entire category of sex toys controlled by a PC and connected to the Internet.³²⁶ This patent, US Patent 6,368,268, dates to a time when teledildonics were a popular topic of discussion for technology journalists and fans, but existed more as titillating science fiction or theoretical test case than as a category of commercial development. As adult content moved online during the 1990s and 2000s, technologists, pornographers, journalists, and fans were fascinated by the combination of technology and pornography. However, Lisa Palac argues, journalists in the 1990s treated high-tech pornography such as adult BBSes, CD-ROMs and the still-theoretical concept of teledildonics as less taboo than video and print magazines:

³²⁵ See, for a recent example, Holofilm Productions. "VR Holographic Porn," Indiegogo 25 October 2015, accessed 14 December 2015, indiegogo.com/projects/vr-holographic-porn#.

³²⁶ Warren J. Sandvick, Jim W. Hughes, and David Alan Atkinson. Method and Device for Interactive Virtual Control of Sexual Aids Using Digital Computer Networks. 2002. US Patent 6,368,268, filed August 17, 1998, and issued April 9, 2002.

“the media focus on the technology was mostly just a ruse to talk about sex. The ‘cyber’ part validated the sex discussion. . . .The technology angle also implied that since it took brains to operate computers, cyberporn was going to be better and classier than the old fare.”³²⁷

Though moral panics in the mid-90s demonstrated not all journalists and readers were so optimistic about cyberporn. From the proposed content regulations in the Telecommunications Act of 1996 to panicked special features on cyberporn in *Time* and *Newsweek* of the same year, teledildonics have been an ongoing humorous counterpoint to larger debates about the technologization of sexuality and increasing access to adult materials, and have acted as an entry point to these questions for fans, hobbyists, and entrepreneurs.³²⁸ Today, the assumption that the combination of technology and sexuality will be “better and classier” leads some entrepreneurs from the technology industry to embark on startup careers in the adult industry, while adult industry professionals aim to emulate technology corporations like Google and Facebook, as one panelist remarked at XBIZ 360 in January 2015.³²⁹

Particularly striking is the degree to which adult and mainstream consumer electronics coexist in some mainstream technology spaces, despite continuing discomfort around adult media within technology culture. For example, in June 2014, the front page of crowdfunding site Indiegogo featured an animated GIF demonstrating the Autoblow 2, a

³²⁷ Palac, *The Edge of the Bed*, 99–100.

³²⁸ See Wendy Hui Kyong Chun. “Screening Pornography,” in *Control and Freedom: Power and Paranoia in the Age of Fiber Optics* (Cambridge: MIT Press, 2006), 77–128.

³²⁹ Scott Watkins, Donna Faro, Tristan Weedmark, Rebecca Cook, Alicia Sinclair, Dennis Paradise, Dee Dennis, “Future of Pleasure Products” (Panel), 15 January 2014. XBIZ 360 Adult Novelty Conference, Los Angeles, CA.

non-teledildonic “robotic oral sex simulator for men,” as one of the site’s most popular campaigns. Some Indiegogo employees were uncomfortable, as the GIF clearly showed the machine stroking a the masturbation sleeve up and down in an endless loop.³³⁰ Others were excited by the opportunity to offer a space for adult campaigns in the field of crowdfunding, dreaming of the day when the company might offer an “after dark” section to adult campaigns.³³¹ The company eventually disallowed the use of GIFs as campaign images, yet by 2015, Autoblow 2 had become a favorite campaign among Indiegogo employees.³³² While some at Indiegogo feared in 2014 that Autoblow 2 would damage the company’s reputation, by 2015, employees had reimagined the campaign as a testament to Indiegogo’s openness to taking on a wide variety of different clients.³³³ In September 2016, *TechCrunch* broke the launch of Indiegogo After Dark, a section of the site dedicated to adult campaigns filled with mostly adult novelty products.³³⁴ While presenting adult products as technological can allow the adult industry to appear more businesslike, escaping some of the stigma attached to pornography and sex work, presenting tech products as actually or potentially sexual can allow corporations and platforms to appear open and forward-thinking, escaping some of the tech industry’s reputation for exclusionary hiring and contributing to displacement and gentrification. Teledildonics is an important case study for the discussion of contemporary

³³⁰ Ben Bateman (Indiegogo Sales), Interview June 2014.

³³¹ Ben Bateman (Indiegogo Sales), Interview October 2014.

³³² Rachel Allen (Indiegogo Campaign Strategist), Interview 7 November 2015.

³³³ Rachel Allen (Indiegogo Campaign Strategist), Interview 7 November 2015.

³³⁴ Haje Jan Kamps, “Indiegogo launches After Dark Collection for saucy crowdfunding campaigns,” *TechCrunch* 15 September 2016, techcrunch.com/2016/09/15/indiegogo-after-dark/.

media because it stands at this point of overlap between the adult and mainstream technology industries. The current situation, with teledildonics at the meeting point of corporate partnerships, startup culture, crowdfunding, and adult industry anxieties about the value of content, is only the most recent era of the concept's history, however. Much contemporary writing about teledildonics is driven by press releases and tradeshow appearances by prominent companies. Not all of these companies have been successful, as the story of RealTouch, launched in 2008 and shuttered in 2015 due to patent licensing issues, demonstrates. RealTouch's marketing discourse also demonstrates some of the ways in which teledildonic dreams may flatten the complex reality of online gender and sexuality into dominant heteronormative and phallogentric sexual models of male penetrators and female dildo-users.

In January of 2013, RealTouch was the "Future of Adult Entertainment." Video ads projected on huge screens above the fan show of the Adult Video News (AVN) Adult Entertainment Expo in Las Vegas, Nevada (Fig. 2) proclaimed the benefits of this automatic "male masturbator" system: haptic data encoded to video clips available through RealTouch's website would make porn truly interactive for the first time; webcam shows would also be interactive through RealTouch Interactive's Beta program, as models could use the RealTouch Joystick to virtually stroke clients. The 2013 video depicted RealTouch in a luxurious environment, with candles and a large bathtub (though the device was not waterproof), and compared RealTouch favorably to sex with a human partner. At the entrance to the fan area of the convention, a large row of tables advertised RealTouch, with models stroking the Joystick and inviting fans to put their fingers inside the RealTouch to

feel its flexible rotating “versaflex” belts, squeezing entry, and internal heating and self-lubrication elements.

RealTouch mixed promises of high “haptic technology” revolutionizing adult entertainment, with surprisingly conventional sexual values. Product representative and model Madyson pitched the device:

We are essentially the future of interactive sex. They have geniusly created live interactive sex via what we call “haptic technology” so through the Internet—we have a cam model site—anything our cam model does to her aptly named “Joystick” . . . our gent can feel through the Internet, through his device. So essentially it simulates live sex, and you can make him a very very happy man with the device. If a gent finds himself a little too shy to actually be one on one with a cam model, we’ve got our video on demand site as well. . . . So we’ve made it so easy now to have sex anywhere, any time, and you don’t even have to buy her dinner anymore. It’s a sure thing!³³⁵

This pitch, repeated in RealTouch advertising material from videos, to articles, to photography on the RealTouch website, to my conversations with product representatives, depicted shy male nerds uncomfortable with their bodies needing a “genius” invention to bring them “live sex” (for the first time?). RealTouch Interactive’s cam models, whose Joystick was likened to a gaming interface, appeared in advertising materials as thin white women donning scientific signifiers like glasses, cardigans, and lab coats—a fantasy of “geek girls” familiar to consumers of specialty websites and indie “geek pr0n.” RealTouch did not

³³⁵ Craveonline.com, “AVN Novelty Expo 2013 – RealTouch Interactive (NSFW),” *YouTube* 31 January 2013, accessed 27 September 2016, [youtube.com/watch?v=rVFv8Wl4wtc](https://www.youtube.com/watch?v=rVFv8Wl4wtc).

simply represent a fantasy of a future porn industry that would employ haptic technology in its products; it proposed a future for pornography very different from the actual industry as it existed from 2009 when RealTouch first appeared at AVN, to 2013 when the device appeared there for the last time. Elsewhere at the trade show, yearly panels on women in the adult industry pointed out that the female audience for pornography and sex toys was gaining recognition, with more and more companies competing for a market share in categories like “couples” and feminist pornography. Pornography, long a special area of study for academic historians, film researchers, and cultural critics, has steadily gained in academic recognition as a genre of film production, performance, and popular culture since the launch of RealTouch in 2008. Works like *The Feminist Porn Book* demonstrate how activists, sex workers, queer artists, and other feminists have been central to the industry since its inception.³³⁶ In short, RealTouch’s heteronormative, male, white, and nerdy vision of pornography’s future was not a reflection of the adult industry’s politics, its self-image, or its vision of the porn audience. Yet the image of pornography and its future presented by RealTouch is all too familiar to anyone following news stories on sex and technology since 1990. RealTouch’s vision for the use of haptic technology in the future of pornography had more in common with the politics of technology corporations than the politics of the adult industry. In this way, RealTouch and other teledildonics reflect the growing relationship between the technology and adult industries since the 1990s.

³³⁶ See Constance Penley, Celine Parreñas Shimizu, Mireille Miller-Young, and Tristan Taormino, “Introduction: The Politics of Producing Pleasure,” in *The Feminist Porn Book: The Politics of Producing Pleasure*, Tristan Taormino, Celine Parreñas Shimizu, Constance Penley, and Mireille Miller-Young, eds. (New York: The Feminist Press, 2013), 9–31.

This link between technology fandom and adult industry development was not always beneficial to adult novelty entrepreneurs however: teledildonics' status as futuristic fantasy also led companies like RealTouch to tangle with "patent trolls," owners of patents like US 6,368,268 (it had changed hands several times since 2002), who never intended to develop teledildonic products. This example of RealTouch thus demonstrates how teledildonics have been both a category of industrial development defined and plagued by patents including US 6,368,268, and a fantasy about the future of sex that led inventors and "trolls" to apply for these patents from 1998–2000, receiving them in the early 00s.³³⁷ RealTouch did not become the future of sex, after all. The company was able to pay patent licensing fees through 2013, but was unable to successfully renegotiate their licenses for 2014. They were forced to halt production of new RealTouch devices January 1 of that year. Fans of the device, including cam models whose clients wanted to sign up or needed replacement parts, scrambled to find used devices in the following years. Adult novelty hobbyist and expert Kyle Machulis posted a list for RealTouch fans in April 2014 of what was gone forever and what they could still

³³⁷ US 6,368,268 was used to sue six companies, not all of whom even identified themselves as producing adult products, in Summer 2015. HasSex, Inc. sued RealTouch in 2010 for violating two of their patents, 5,889,672 and 6,275,213. See Sandvick, et. al, Method and Device for Interactive Virtual Control of Sexual Aids Using Digital Computer Networks; Kyle Machulis, "Patent Troll vs. Everyone: Teledildonics Patent Lawsuit," *Metafetish* 22 July 2015, accessed 27 September 2016, metafetish.com/2015/07/22/patent-troll-versus-everyone-teledildonics-patent-lawsuit/; Mike Masnick, "Who Says Patent Lawsuits Aren't Sexy?" *Techdirt* 9 May 2008, accessed 27 September 2016, techdirt.com/articles/20080504/0006061024.shtml; and Masnick, "More Patent Lawsuits Over Interactive Sex Toys," *Techdirt* 6 December 2010, accessed 27 September 2016, techdirt.com/articles/20101129/02134712035/more-patent-lawsuits-over-interactive-sex-toys---teledildonic-patent-thicket.shtml.

expect to find.³³⁸ Clients with devices continued to use the RealTouch website and to schedule dates with models, and a market for used devices sprung up on the RTI Beta forums. By February 2015, however, the company was in a slow decline, and *Engadget* reported they were looking for an investor to take over their company or at least pay their licensing fees.³³⁹ September 2 was the last day for the RealTouch Interactive website. Then-most-popular model BouncyBritney posted a \$50 special: “Let me suck you dry one last time before the site is gone!” At this writing, Realtouch.com shows an image of the product, with a company message about the device’s place in history, alongside contact information for journalists and businesspeople:

We created RealTouch so that users could feel the action in their favorite adult movies, not just watch them. It was the first commercial device to utilize specially encoded videos to provide motion that was synchronized precisely to match the movement on screen. . . . As the first of its kind, RealTouch cemented its place in the history of adult entertainment. We thank you for being part of our story.³⁴⁰

Below the statement are posted a link to download the RealTouch client software, and 25 downloadable clips for use with the device, with nondescript names like “Amateur 1” and “Boobs 3.” Even after its demise, RealTouch presents itself for an audience of journalists and potential investors as a “story” about the “history of adult entertainment,” not simply as an

³³⁸ Kyle Machulis, “RealTouch: The Shutdown, and the Parts You Can Still Get,” *Metafetish* 17 April 2014, accessed 27 September 2016, metafetish.com/2014/04/17/realtouch-the-shutdown-and-the-parts-you-can-still-get/.

³³⁹ Daniel Cooper, “Adult Themes: The Rise and Fall of America’s First Digital Brothel,” *Engadget* 26 February 2015, accessed 27 September 2016, www.engadget.com/2015/02/26/adult-themes-digital-brothel/.

³⁴⁰ “RealTouch,” *Realtouch.com* 2016, accessed 27 September 2016, realtouch.com/.

adult novelty company or webcam site. However, the story of RealTouch is not simply the story of the first product, or even of a range of products, that brought haptic technology to the adult industry. By telling the broader story of teledildonics, this chapter examines why RealTouch, the “first of its kind,” came into the world with such great expectations, and left with such pomp and circumstance. The history of teledildonics is not just that of RealTouch and its later competitors, but the history of a fandom that had one particular vision for the future of technologized sexuality, one that would involve both audiovisual immersion and cutaneous stimulation.

RealTouch is just one example of the longstanding interrelation between the adult video and novelty industries and the consumer electronics industry. The Dutch teledildonics company Kiiroo and its partners, including Fleshlight, Flirt4Free, and Red Light Center currently dominate the discourse of teledildonics. Though they have also faced litigation for patent infringement, Kiiroo’s products continue to stand in for the future of sex in various venues, from adult and mainstream technology trade shows, to journalism around the future of sex, to their own prolific social media and blog, to some fans’ and experts’ annoyance.³⁴¹ However, RealTouch’s trail demonstrates some of the overlaps between adult novelty and technology development, advertisement, and journalism. First, the device appeared both at AVN and at the Consumer Electronics Show (CES), two events that had appeared at the

³⁴¹ As Kyle Machulis wrote of Kiiroo in an article about the 2015 teledildonics patent case: “GOD SOMEONE PLEASE STOP THEIR . . . MARKETING DEPARTMENT.” Kyle Machulis. “Patent Troll vs. Everyone: Teledildonics Patent Lawsuit.” *Metafetish* 22 July 2015. Web. <http://www.metafetish.com/2015/07/22/patent-troll-versus-everyone-teledildonics-patent-lawsuit/>. Accessed 17 November 2015.

same venues from the 1980s until 2012, when they “parted ways.”³⁴² Technology news sites like *Gizmodo*, *Engadget*, and *The Verge* covered developments for the interactive sex toy, and mainstream news outlets including *Business Wire*, *CNBC*, and *Forbes* covered the device as part of stories arguing that pornography has always been at the forefront of technological innovation.³⁴³ Though the particular nexus of sex and technology represented by teledildonic devices like RealTouch is most popular within certain subcultural communities, the fantasy of having sex with a computer or another person in virtual reality is almost as ubiquitous a future vision as the so-called *technological singularity*, when artificial intelligence is supposed to surpass human intelligence and thereby create an era beyond human comprehension. This has been true at least since 1990, when Howard Rheingold’s piece coining “teledildonics” left the early online community Whole Earth ‘Lectronic Link (or WELL) to appear in the cyberculture magazine *Mondo 2000*.³⁴⁴ Therefore though discussions of teledildonics and the future of technology and sexuality have not been limited to a self-contained subculture, teledildonics can nevertheless be viewed within the framework of fan studies, a subset of audience studies that began in the 1980s and 1990s.

Scholars studying fans at this time treated subcultures of passionate media fans, particularly of Science Fiction, as marginalized subjects using tactical and transformative reading strategies to resist prescriptive social hierarchies. As academics across the humanities

³⁴² Conor Shine. “Why Porn Queens and CES Tech Geeks Have Parted Ways.” *Las Vegas Sun* 17 January 2012. <http://lasvegassun.com/news/2012/jan/17/why-vegas-porn-convention-decided-meet-week-after-/>.

³⁴³ See for example Chris Morris, “Porn’s Tech Frontier: 3D and Peripherals,” *CNBC.com* 31 December 2009, cnbc.com/id/34575427.

³⁴⁴ Howard Rheingold, “Teledildonics: Reach Out and Touch Someone.”

have increasingly identified with fandom, and media industries have made fans and their activities an integral part of their marketing strategies in an increasingly deregulated and narrowcast media landscape, fan studies has turned away from viewing fans as subcultural or marginalized, or, alternatively as “agents of maintaining social and cultural systems of classification and thus existing hierarchies.”³⁴⁵ Instead, as Jonathan Gray, Cornel Sandvoss, and C. Lee Harrington argue, studying the activities of fans as an increasingly mainstream way to consume media “allows us to explore some of the key mechanisms through which we interact with the mediated world at the heart of our social, political, and cultural realities and identities.”³⁴⁶

The term “teledildonics” has a fannish ring to it: as a term that is simultaneously unfamiliar to many and understood quickly upon its discovery, teledildonics can serve as a calling card for geeks invested in the nexus of sex and technology. As a conceptual term, “teledildonics” might be seen within Constance Penley’s concept of *appropriate technology*: like photocopied zines, “teledildonics” is subcultural, yet accessible and shareable.³⁴⁷ Teledildonics as a term and its attendant cultures and practices, is also highly *spreadable*, in Henry Jenkins, Sam Ford, and Joshua Green’s terms.³⁴⁸ Articles about teledildonics are a

³⁴⁵ Jonathan Gray, Cornel Sandvoss, and C. Lee Harrington, “Introduction: Why Study Fans?” in *Fandom: Identities and Communities in a Mediated World*, Jonathan Gray, Cornel Sandvoss, and C. Lee Harrington, eds. (New York: NYU Press, 2007), 6.

³⁴⁶ Gray, Sandvoss, and Harrington. “Introduction,” 10.

³⁴⁷ Constance Penley, “Brownian Motion: Women, Tactics, and Technology,” In *Technoculture*, Constance Penley and Andrew Ross, eds. (Minneapolis: University of Minnesota Press, 1991).

³⁴⁸ See Henry Jenkins, Sam Ford, and Joshua Green, *Spreadable Media: Creating Value and Meaning in a Networked Culture* (New York: NYU Press, 2013).

recurring theme in tech journalism since the 90s in part because the idea of sex with and through media elicits so much interest, and so many audience opinions. Teledildonics can serve as “clickbait,” with new media startups publishing stories about technologized sexuality in order to attract readers and elicit participatory sharing. However, “sharing” the concept of teledildonics can be as simple as teaching someone else the word in a face-to-face encounter. In the San Francisco Bay Area, where the *Future Sex* offices were swarmed by reporters looking for fictional teledildonics in 1992, the mention of teledildonics in a party setting may still prompt self-styled “sexperts” and adult novelty industry hopefuls to spring from the woodwork. Teledildonics’ dual origin as fan favorite and area of industrial development has made it a difficult area for commercial developers, as some early believers in teledildonics as the future of media patented the idea before it was commercially viable, but its troubles have also served as a point in a larger discussion about technological innovation, entrepreneurship and patent ethics.³⁴⁹

Teledildonics is both a fandom organized around the idea of having sex with and through media interfaces, and a set of commercial products variously described through the terms teledildonics, cyberdildonics, tele-touch, haptics, and virtual reality, among others. Following *Future Sex*’s humorous predictions, this chapter divides the narrative historically, into two “generations” of teledildonics in the 90s and aughts respectively. In these two “generations,” the meanings associated with technologized sexuality and virtual reality are made visible by teledildonics’ reframing of these areas as haptic media. Tracing the concept of teledildonics can help draw out underlying assumptions about the role of gender and

³⁴⁹ Annalee Newitz. “Sorry You Can’t Have Any More Sex Toys Because of This Patent.” *Gizmodo* 23 July 2015. Web. <http://gizmodo.com/sorry-you-cant-have-any-more-sex-toys-because-of-this-p-1719816692>. Accessed 14 December 2015.

sexuality in technological innovation, as well as the shape of technology and futurism in fans' imaginations. Dividing this story into two "generations" also helps clarify shifting popular accounts along with their accompanying corporate advertising rhetoric, journalistic games of telephone, and other intentional or unintentional misinformation. These changing origin myths of teledildonics must be taken seriously as indications about the culture of the fandom at any given time. For example, 1990s journalist Howard Rheingold, not 1970s cyberculture luminary Ted Nelson, coined "teledildonics," it is significant that aughts "second-generation" teledildonics fans tended to attribute of the term to Nelson's description of How Wachspress's Auditac machine.

By approaching teledildonics not solely as a set of commercial products, but as a term and discourse that draws together a diverse fandom of theorists, critics, journalists, hobbyists, open-source activists, startup hopefuls, sex workers, and adult novelty professionals among others, this analysis avoids the sweeping assumptions and idealist histories that characterize some of the popular narrative. This account discusses two "generations" of teledildonics fandom through two concepts implicit in teledildonics itself: the *teledildonic theory of media history*, an idealist historical narrative positing teledildonics as the end point to new media development, and the *teledildonic theory of media communication*, a communications model illustrated in the 1998 patent mentioned above which posits the Internet as a black box, to be connected to other black boxes. Finally, teledildonics is an argument about the cutaneous nature of virtual reality, often imagined as a primarily optical technology whose haptics are kinesthetic and affective.

The Teledildonic Theory of Media History: First-Generation Teledildonics (1990-1998)

The first fully functional teledildonics system will probably not be a fucking machine. You will not use erotic telepresence technology in order to have sex with machines. Twenty years from now, when portable telediddlers are ubiquitous, people will use them to have sexual experiences with other people, at a distance, in combination and configurations undreamt of by precybernetic voluptuaries.

—Howard Rheingold (1990)³⁵⁰

When Howard Rheingold coined the term teledildonics in the late 1980s, it was purely speculative. Musing upon the future of sexuality in limitless cyberspace, he dashed off a quick science-fictional essay on the possibilities of Internet-connected virtual sex between human partners, and posted it on the WELL (Whole Earth ‘Lectronic Link), a bulletin board system that formed one of the first computerized social networks. Rheingold did not make the essay private. He never expected it to spread across the globe in the early 1990s, inspiring an entire movement of pornography, fashion, art, and popular culture around a technology that existed more as dream than reality. He made abundantly clear in his piece the technological difficulties involved with designing such a device, and how teledildonics would be far in the future, if ever achieved. By the time Rheingold published his book *Virtual Reality* in 1991, however, he had already been approached by a German corporation about designing and producing teledildonics, as if he were ready to put his “designs” into development as commercial products! Teledildonics had become what we would now call an

³⁵⁰ Howard Rheingold, “Teledildonics: Reach Out and Touch Someone.

Internet meme, a concept so appealing and so shareable that it would spread with or without Rheingold's consent or control.³⁵¹

From the sexual dance of the False Maria in *Metropolis* (dir. Fritz Lang, 1926), to midcentury examples like the Excessive Machine in *Barbarella* (dir. Roger Vadim, 1968) and the Orgasmatron in *Sleeper* (dir. Woody Allen, 1973), fantasies of sex machines populate science fiction film history. By coining "teledildonics," however, Rheingold imagined sex not *with* a machine, but *through* machines, sex between human partners *mediated* by virtual reality, machine interfaces, and the Internet. He also imagined a cutaneous component to virtual realities that were so far kinesthetic, affective, and audiovisual. The word teledildonics thus described the dream that sex will not only be *represented* in media, but sex would *become* media, that it will be transmitted through telecommunications networks at a distance, and this would enhance human sexual communication. Though sex, gender, and sexuality were already being communicated through social networks like the WELL as text, the narrative of a teledildonic future argued that sexuality online would, or should make a certain kind of approximation of "the real thing," framed as heterosexual, bodies-only, penetrative sex. Rheingold's musings on teledildonic futures were immediately popular because they spoke to a dominant cultural narrative about the relationship between sexuality and technology: namely, that technological developments are driven by certain forms of sexual desire, and that new media technologies can be popularized through their

³⁵¹ Howard Rheingold, *Virtual Reality*, 348–53.

pornographic uses. They also spoke to the desire for sexuality online to be adventurous and futuristic, while catering to understandings of “good, normal, neutral, blessed sexuality.”³⁵²

Studying sex technologies like teledildonics is a part of the longstanding study of the regulation of sexually-explicit content, which helps expose the power structures underlying new and historical communications media. Scholars of European modernity including Lynn Hunt and Walter Kendrick argue that the concept of pornography itself is a reflection of Western social hierarchies dating to the introduction of mass reproductive media like the printing press and photography.³⁵³ In particular, Kendrick argues that “pornography” is not a set of sexually-explicit texts, but a discourse justifying the restriction of certain texts from certain audiences, made necessary by the widespread availability of mechanically-reproduced texts for a mass audience. Pornography, Kendrick argues, appeared for the first time in the late 18th century, as an “imaginary scenario of danger and rescue” that justified withholding certain materials from all but the most privileged members of society, in the name of protecting women, the young, and the working class.³⁵⁴ Thus, as print media and photography became more accessible, the discourse of pornography justified the maintenance of a classed, gendered, and racialized knowledge hierarchy in Western society. As this argument about links between the history of pornography and the history of media technology has been popularized, for example through the documentary miniseries

³⁵² Gayle Rubin, “Thinking Sex: Notes for a Radical Theory of the Politics of Sexuality,” in *Deviations: A Gayle Rubin Reader*, Gayle Rubin, ed. (Durham, NC: Duke University Press, 2011), 153.

³⁵³ See Lynn Hunt, *The Invention of Pornography 1500-1800: Obscenity and the Origins of Modernity* (New York: Zone Books, 1993); and Walter Kendrick, *The Secret Museum: Pornography in Modern Culture* (Berkeley: University of California Press, 1997).

³⁵⁴ Kendrick, *The Secret Museum*.

Pornography: A Secret History of Civilization (exec. prod. Fenton Bailey and Randy Barbato, UK, 1999), a larger narrative has emerged in popular culture of technological innovation inevitably being used toward pornographic ends. This narrative of media history has become especially popular following the increased popular use of the Internet to access free pornography since the 1990s. The rise of internet pornography—synonymous with “pornography” for many—has fueled an ongoing utopian/dystopian debate about the significance of technology for gender, sexuality, commerce, and culture premised on the assumption that increased access to technology means increased access to pornography and other gender-questioning and sexually explicit content.

In the adult industry, this adage that “the Internet is for porn” has not translated to increased profits for filmmakers or performers, however.³⁵⁵ As pirated and other free video content has become ubiquitous on “tube” sites like Porn.com, PornoTube, and xHamster,³⁵⁶ content producers in the adult industry struggle to monetize their content and earn a living, as workers in the industry struggle to make a living wage from performing in adult film alone. Like other technologized media industries, the adult industry has faced the challenges of the “platform model,” whereby content delivery services and social networks earn more (in advertising revenue) than producers of content (who may or may not be paid for their work).

³⁵⁵ See the musical number “The Internet is for Porn,” performed by Kate, Trekkie Monster, Brian, Gary Coleman, Rod, and Princeton in the 2003 Broadway musical *Avenue Q* (Robert Lopez, Jeff Marx).

³⁵⁶ Watching free content has become a badge of pride for many mainstream consumers, and students have frequently mentioned to me that they would not pay to view porn. For example, blogger “The Porn Dude” argues, “Everyone knows that when it comes to watching porn on the Internet, the best way to do it is with the classic tube site.” The Porn Dude, “Top Tube Sites,” 2015, accessed 5 December 2015, theporndude.com/top-porn-tube-sites.

Like in other creative industries, workers have turned to social media and personality work to make ends meet as content becomes less financially valuable.

Some technology startups have made profits from existing adult content through the unauthorized use of copyrighted material. During the late 1980s and early 1990s, when bulletin board systems (BBSes) gained popularity as a distribution network for adult photography, systems operators (sysops) began scanning old magazines and charging subscriptions to view their collections.³⁵⁷ In 1993, Playboy brought the first copyright infringement lawsuit, winning \$500,000 in damages from a BBS that had grossed \$3.2 billion that year selling copyrighted material from its magazines. BBSes were expected to self-police uploaded materials, a difficult task for an industry partially based on user-submitted content. Brian McCullough writes of BBSes in the early 1990s, “Suddenly, a user could dial in to a BBS and have access to more porn than had ever been available in one place before. It was a cornucopia of pornography the likes of which the world had never seen, because it was essentially curating all the available porn in existence.”³⁵⁸ BBS users were more than willing to pay to access this content, but who was getting paid? Though the 1990s represented a golden age for the adult video industry, digital porn consumption through online aggregators like torrenting services and tube sites eventually outpaced business at traditional video stores. Older production companies like Hustler and Vivid have built an online presence, while smaller technology startups and independent porn producers have been more successful at harnessing the online market. However, the distribution of unauthorized content—or “porn

³⁵⁷ Brian McCullough, “Chapter 6 – A History of Internet Porn,” *Internet History Podcast: From Netscape to Netpad* 4 January 2015, accessed 28 September 2016, internethistorypodcast.com/2015/01/history-of-internet-porn/.

³⁵⁸ McCullough, “Chapter 6 – A History of Internet Porn.”

piracy”—continues to be a problem in the adult industry, as has piracy across media industries.

Contemporary technology producers in the adult industry respond by offering the promise that a “next big thing,” be it teledildonics or virtual reality, will soon offer filmmakers and performers a second chance to get the relationship between technology and porn “right” for their bottom line. Today, this futuristic speculation becomes increasingly effusive as technology producers are also increasingly dependent on their consumers for funding and market validation in venues like the crowdfunding pitch video. Speaking in an Indiegogo crowdfunding pitch video for Holofilm Productions entitled “Give Porn a Hand,” Red Light Center CEO Brian Redban argues that three new types of virtual reality pornography were poised to revolutionize the adult industry: “hologram porn” in which VR users move and look around performers in a scene; “synthologram porn,” in which a VR user can look around a room full of scenes in progress, and “interactive holograph sex,” sex between 3-D animated avatars such as those on Red Light Center, in virtual reality.³⁵⁹ “Soon, the teletouch revolution will catch up,” Redban argues. “Things like the Fleshlight and the Kiiproo and the haptics interactive, and [consumers] will be able to see, hear, and feel the action.” Actress, writer, director and producer Kayden Kross agrees: “I think humans are always ready for a better sexual experience. That’s pretty much . . . humans historically. . . . as with all erotica that came before, the technology that creates the most vivid user experience is the one that prevails.”³⁶⁰ Despite patent issues in the field of teledildonics, and the high cost of technology development and content creation for virtual reality, this video

³⁵⁹ Holofilm Production, “VR Holographic Porn.”

³⁶⁰ Holofilm Production, “VR Holographic Porn.”

argues that porn producers and consumers are on the verge of a revolution of fully immersive virtual sex, and that technological development and sexual representation are inevitably, even fatefully linked in human nature.

To argue this, the video draws on the idealist historical argument in new media journalism and fandom I have been describing, which I call the *teledildonic theory of media history*. This theory argues advances in media technology development are driven by a desire to improve users' sexual experiences. Building upon existing cultural discourses about the digital sublime and its ability to transform society and eliminate history, geography, and politics, the teledildonic theory of media history posits an end point to the history of new media in what might be called *total teledildonics*, immersive mediated sexuality indistinguishable from in-person sex. If technological development is an inexorable fact of life, and the ultimate goal of advertisers is to capture the sex drive of consumers ("sex sells"), then it follows that the best sex technology available at any time will produce the greatest profit for its owners.

The term "total teledildonics" recalls, of course, André Bazin's "myth of total cinema," whereby "the guiding myth . . . inspiring the invention of cinema [was] a recreation of the world in its own image."³⁶¹ Bazin argued that technological development in the cinema is "an idealistic phenomenon. The concept men had of it existed so to speak fully armed in their minds, as if in some platonic heaven, and what strikes us most of all is the obstinate resistance of matter to ideas rather than of any help offered by techniques to the imagination

³⁶¹ André Bazin, "The Myth of Total Cinema," in *What is Cinema*, ed. and trans. Hugo Gray (Berkeley: University of California Press, 1967), 21.

of researchers.”³⁶² Jean-Louis Comolli famously critiqued idealist histories of cinema, arguing that idealist narratives tend to justify current media forms, by providing their “origins,” and presenting current technologies as a “final and *perfected* form” of a previous trend.³⁶³ Following these classic arguments, the teledildonic theory of media history both justifies the importance of current media technologies and promotes a certain vision of media’s future, while arguing that a particular near-future technology will provide a necessary step toward this future. Advertisements for new media products are particularly fond of such idealist historical futurism, as genres like the crowdfunding pitch video demand that every new innovation be both the first of its kind and the answer to an age-old problem.

This teledildonic theory of media history has remained largely unchanged since the 1990s, when Rheingold used the term “teledildonics” to refer to his particular dream of a cybersuit technology for remote networked sexuality. However, the particular form “teledildonics” is supposed to take as this historical endpoint has shifted. Rheingold’s “VR suits” were understood to be the future of sex in the 1990s, inspiring international film depictions from *The Lawnmower Man* (dir. Brett Leonard, US, 1992) to *Thomas est Amoureux* (*Thomas in Love*, dir. Pierre-Paul Renders, Belgium, 2000). By the mid-aughts, high-end love dolls had captured the public imagination, and the endpoint of technosexual development was supposed to be *Love and Sex With Robots*, as discussed in David Levy’s 2007 book of the same name, and as depicted in films including *Lars and the Real Girl* (dir.

³⁶² Bazin, “The Myth of Total Cinema,” 17.

³⁶³ Jean-Louis Comolli, “Technoque and Ideology: Camera, Perspective, Depth of Field [Parts 3 and 4],” in *Narrative, Apparatus, Ideology*, ed. Phillip Rosen (New York: Columbia University Press, 1986), 425.

Craig Gillespie, US/Canada, 2006).³⁶⁴ Simultaneously, hobbyists developed the sexual potential of videogames, from teledildonic products designed to be used with the immersive virtual world Second Life, to humorous hacker projects like “Joydick” (SF Media Labs, 2009), which allows a gamer to use their dick as an Atari controller with the nostalgic Atari Flashback console.³⁶⁵ As I discuss here, and in more detail in the conclusion to this project, late-aughts and 2010s commercial devices using “teledildonics” as an industrial category, including RealTouch, VStroker, and Kiiroo, used automatic masturbators and networked dildos to connect partners through a webcam interface. Though this technology was being used primarily to enhance the business of cam models and cam sites, popular discourses surrounding these late-aughts startup teledildonics implied that noncommercial heteronormative couples would be using teledildonics to enhance their long-distance relationships.³⁶⁶ The goal of introducing this “teledildonic theory of media history” is historiographically inspired. The term “teledildonics” is not only a category of technology production, but also the basis for a popular theory of media history that has animated utopian and dystopian discussions about the future of technology, the future of sexuality, and the impact of technology on gender, sexuality, and society. By discussing teledildonics as both a category of technology and a category of fan engagement, we can better understand how

³⁶⁴ See David Levy, *Love and Sex With Robots: The Evolution of Human-Robot Relationships* (New York: HarperCollins, 2007).

³⁶⁵ See Diana Pozo, “Counter gaming’s Porn Parodies, Hard Core and Soft,” in *Rated M for Mature: Sex and Sexuality in Video Games*, Matthew Wysocki and Evan Lauteria, eds. (New York: Bloomsbury, 2015).

³⁶⁶ Kiiroo’s marketing discourse has picked up on the desire for teledildonics to address “couples in long distance relationships.” See “KIIROO – Teledildonics for Long Distance Relationships,” accessed 5 December 2015, kiiroo.com/.

these shifting technosexual futures—factual and fictional—were gathered into a canon by an emerging community of fans, hobbyists, and other “sex geeks” from the 1990s to the present. We can also begin to understand how and why certain elite consumers, particularly international technology and knowledge workers organized by the conceptual geographic center of San Francisco, imagine teledildonics as the future of media and the future of sexuality.

The San Francisco Bay Area serves as the symbolic center for a variety of subcultures, social movements, and marginalized identities. It serves as a “symbolic homeland” for queer people who may be exiled from families, nations, or hometowns,³⁶⁷ but histories of bohemians, Beats, hippies, the Black Panther Party, alternative computing, and BDSM, fetish, or kink scenes loom large in the public imagination of the area. However, this fantasy of the Bay Area as a progressive haven may obscure and produce the region’s economic and racial inequality. As Margot Weiss argues, San Francisco is a tourist attraction, outranking Disneyland in California attractions in the 1990s, whose “complicated and contradictory queerness . . . is produced by and for queer tourism.”³⁶⁸ Sexual tourism in the Bay Area also caters to the particularly technologized BDSM scene, with its emphasis on custom outfits and sex toys. Weiss discusses how this contemporary “new guard” BDSM scene, like the Bay Area, has two centers: its symbolic center is San Francisco, while its economic center is Silicon Valley, in the South Bay.³⁶⁹ The practitioners in Weiss’s study,

³⁶⁷ Margot Weiss, *Techniques of Pleasure: BDSM and the Circuits of Sexuality* (Durham, NC: Duke University Press, 2011), Kindle Edition, loc. 654.

³⁶⁸ Weiss, *Techniques of Pleasure*, 657, 665–690.

³⁶⁹ Weiss, *Techniques of Pleasure*, 697.

primarily white upper-middle class technology professionals in committed relationships, describe their sexuality in terms of technical expertise. Weiss writes, “Some people call BDSM ‘graduate school sex.’ It is this kind of educational mastery that differentiates—as Malc, a white, heterosexual mostly dominant in his late thirties put it—‘people who are identified as BDSM practitioners and people who just do rough sex.’”³⁷⁰ The mythology of teledildonics is part of this larger ethic of expertise in the technologized sexual culture of the San Francisco Bay Area, in which tech workers hope to improve sexuality for themselves and others by designing better toys and implements. As Weiss writes, shifts in the BDSM scene and other sexual cultures of the Bay Area followed economic developments in the 1970s through 1990s that made San Francisco a tourist center and Silicon Valley a center for postindustrial neoliberal labor.

The popularization of science and technology in the American bedroom is often linked to 1980s AIDS activists including Richard Berkowitz and Michael Callen in New York,³⁷¹ and the Sisters of Perpetual Indulgence in San Francisco,³⁷² who worked with medical doctors to combat the AIDS epidemic with the education and practice of “safe sex,” in part by repopularizing neglected sex technologies like the condom and the vibrator and by detaching sexual practice from the dangerous exchange of bodily fluids. These and other sex technologies, including media representations like pornography and kink imagery, and sex toys like strap-on dildos, fueled a fierce debate among academic feminists that came to be

³⁷⁰ Weiss, *Techniques of Pleasure*, 239.

³⁷¹ Richard Berkowitz, Michael Callen, and Richard Dworkin. *How to Have Sex in an Epidemic: One Approach*. New York: News from the Front Publications, 1983.

³⁷² *Play Fair!* [Pamphlet] San Francisco: Sisters of Perpetual Indulgence, 1982.

known as the Sex Wars.³⁷³ However, teledildonics describes a different dream of “safe sex”: while condoms, testing, and communication with partners emphasized the protection of the human body, the scenario imagined by Rheingold imagined transcending embodied issues like sexually transmitted infections, while retaining embodied sensation. The dream of transcending safe sex through cybersex and teledildonics is evident in descriptions of cybersex in the 1990s. A 1993 overview of cybersex on BBSes summed up one element of their appeal: “Bulletin boards provide a place to establish intimacy without fear of disease—at least if callers keep their action strictly on-line!”³⁷⁴ Though written about in vague terms, fear of the AIDS epidemic certainly contributed to the dream of adventurous and anonymous sex in cyberspace. Teledildonics and cybersex could be framed within the set of safer sex practices and technologies. However, the teledildonic theory of media history also argues that physical safe sex technologies like condoms are but imperfect shadows of the polymorphous and unlimited sexual pleasures of a futuristic “disease-free” virtual reality sexuality. In this sense, technophilia and AIDS activism are not necessarily aligned. Moreover, while cultures of safe sex were created and disseminated in urban centers like New York and San Francisco, Rheingold’s teledildonics transcended physical place, imagining that fans could engage in emerging sex-positive culture at a distance from these centers. Finally, while teledildonic machines could undoubtedly cost great sums of money *in the future*, the *idea* of teledildonics was free to consume and elaborate upon, making it more accessible than other early cybersex technologies.

³⁷³ Lisa Duggan and Nan D. Hunter, eds. *Sex Wars: Sexual Dissent and Political Culture*. New York: Routledge, 2006. See also Ann Ferguson. “Sex War: The Debate Between Radical and Libertarian Feminists.” *Signs* 10, no. 1 (Autumn, 1984), pp. 106-112.

³⁷⁴ Nancy Tamosaitis, “Mama Told Me Not to Come: Over the Lines and Across the Boards,” in Robinson et. al., *The Joy of Cybersex*, 78 –233, 232.

Some of the earliest “teledildonic” computer accessories were the modem (used to access BBSes) and CD-ROM drives, costly additions to already-pricey personal computers. In 1993, *The Joy of Cybersex* educated readers about early-90s cybersex activities such as adult text chat, viewing adult photos on BBSes, editing these digital photos in Photoshop, and enjoying adult CD-ROMs such as the Macintosh sex-simulation game *Virtual Valerie* (Mike Saenz, 1990, \$79.95).³⁷⁵ However, to enjoy these futuristic delights as more than simply an armchair fantasy, readers would have to be up-to-date on the latest technologies: “you may have to upgrade an old 286 or 386 PC to its faster 486 cousin to enjoy the show. Even so, the on-screen video today typically runs at 15 frames-per-second, only half the speed of television images.”³⁷⁶ To this updated PC, readers were advised to add the latest CD-ROM drives, steering away from deceptive sales: “stay away from those \$299 specials,” *The Joy of Cybersex* warned.³⁷⁷ To get on “the boards,” readers would need at least a 9600bps modem, sold at an “affordable . . . and practical” \$150.³⁷⁸ This was in comparison to printers, which ranged in 1993 from \$400 to \$10,000!³⁷⁹ The 1996 adult film *Cybersex* (dir. Brad Armstrong and Greg Steelberg), portrays how these adult technologies were much more accessible in the workplace, telling the story of a tech worker (Marc Wallace) who meets a woman (Crystal Gold) by logging on to a BBS at work. By accessing this BBS, the worker unknowingly unleashes his partner, actually a cybersexual military robot, on the world. In

³⁷⁵ Robinson, et. al., *The Joy of Cybersex*, 293.

³⁷⁶ Robinson, et. al., *The Joy of Cybersex*, 5.

³⁷⁷ Robinson, et. al. *The Joy of Cybersex*, p. 4.

³⁷⁸ Robinson, et. al. *The Joy of Cybersex*, p. 8.

³⁷⁹ Robinson, et. al. *The Joy of Cybersex*, p. 9.

contrast, contemporary tales of human-computer romance like *Her* (dir. Spike Jonze, 2013) portray a service-oriented technologized workplace, with invisible yet ever-present computers permeating many aspects of everyday life. While computers themselves constituted a kind of teledildonic digital sublime in *Cybersex*, the sexual implications of technology become more pervasive as they retreat “into the woodwork” in *Her*.³⁸⁰

Debates around the meaning of futuristic technology could circulate more widely than experiences with adult CD-ROM and BBSes, as human interest news stories and television specials, along with popular culture addressing the realities and possibilities of sexual technology, from adult cyberculture magazines like *Future Sex* and *Mondo 2000*, to hard core and soft core adult films like *Cybersex* and the *Virtual Encounters* series (dir. Cybil Richards, 1996–1998), to mainstream films like *The Lawnmower Man* (dir. Brett Leonard, 1992) and music video including Aerosmith’s “Cryin’” (dir. Marty Callner, 1993), and Jennifer Lopez’s “If You Had My Love” (dir. Paul Hunter, 1999), among many others. As the first commercial Internet pornography appeared on pay subscription BBSes and CD-ROMs, a market of fans of science, technology and sexuality began to emerge. Excited by low-res erotic CD-ROMs and primarily text-based BBSes, but wanting more, fans and entrepreneurs in this emerging cybersex culture interpreted contemporary developments through imaginaries of the future, including the yet-unrealized prediction represented by teledildonics.

The Joy of Cybersex also dedicates over fifty pages to “CyberSex Visions,” a section of futuristic predictions about technology and sexuality. The section assembles a set of texts about the future, describing science fiction portrayals of virtual reality like *The Lawnmower*

³⁸⁰ Mosco, *The Digital Sublime*, 2.

Man (dir. Brett Leonard, 1992) and the television miniseries *Wild Palms* (ABC, May 1993), discussing the celebrity of futurists including Jaron Lanier and Timothy Leary, and describing some contemporary glove and goggle technologies.³⁸¹ Finally, the section recommends a number of magazines, including *New Media*, *Details*, *Wired*, *Mondo 2000* and *Future Sex*, as places to stay updated on “the progress of virtual sex.”³⁸² Parts of the section read like an advertising pitch for the concept of virtual reality, including a bullet-pointed list of benefits to virtual sexuality: “you could slip into a body of the opposite sex . . . you can assume the body of an alien race of your own design. . . . you can create more or different body parts. . . . you can create new types of sexual stimulation. . . . you can take on the guise of . . . a couch, a chocolate cake, or a vibrator.”³⁸³ However, most of the section works to create a *canon*, a set of texts fans can assemble around to imagine the cybersex of the future.

Cybersex visions like teledildonics thus acted not only as predictions of the media future, but as artifacts of a *fan culture* around technology culture and sexuality in the 1990s. Constance Penley described these fans of “popular science and sex in America” in 1997, arguing that science was becoming incredibly popular, and institutions of science and technology increasingly sought to be accepted by the public.³⁸⁴ This “popular will to do science” was not often understood by scientists, who sometimes viewed popular fan texts

³⁸¹ Robinson, et. al. *The Joy of Cybersex*, 236–88.

³⁸² Robinson, et. al. *The Joy of Cybersex*, 275-288.

³⁸³ Robinson, et. al., *The Joy of Cybersex*, 242.

³⁸⁴ Constance Penley, *NASA/TREK: Popular Science and Sex in America* (New York: Verso, 1997), 4.

such as *Star Trek* and *The X-Files* as attempts to deceive a gullible public.³⁸⁵ That *The Joy of Cybersex* devotes such a large section to fictional technology demonstrates how for many fans of computers and virtual reality fictional depictions were consumed on the same level as paratexts, texts surrounding available consumer products. However, Ellen Strain describes such conflation of actual and imagined technology as “virtual VR,” arguing, “speculation surrounding VR makes it necessary to differentiate between current VR applications and what like to call ‘virtual’ virtual reality—in other words, the goggle-and-senso-sheath technologies which seem virtually real in popular discourses but which have yet to enter the realm of actuality.”³⁸⁶ Strain was understandably frustrated, in 1999, by the exuberance of discourses surrounding virtual reality as a cultural object, and argued for a distinction between “fact and fiction,” lamenting, “Cultural critics are as busy as science fiction writers making predictions, speculating on applications, and asking questions about the implications of the technology.”³⁸⁷ However, as Vincent Mosco argues, the details of new technologies’ design do not tell us everything about their meaning: myth plays an important role in the meaning of new technologies as well.³⁸⁸ This is particularly true when technological innovation is understood within the framework of haptic media.

Understanding debates around virtual VR in the 1990s as a discussion within a fan culture makes this strict delineation of actual and “virtual” technological developments less necessary, however. To study teledildonics, one of the most egregious and long-standing

³⁸⁵ Penley. *NASA/TREK*, 5.

³⁸⁶ Ellen Strain, “Virtual VR,” *Convergence: The International Journal of Research Into New Media Technologies* 5, no. 2 (June 1999): 10-15, 10.

³⁸⁷ Strain, “Virtual VR,” 10.

³⁸⁸ Mosco, *The Digital Sublime*.

instances of virtual VR, yet one with a tenacious and outspoken fandom, it is necessary to take these fictional technologies seriously as examples of innovation, even if this innovation begins at a conceptual, not physical, stage. The case of teledildonics is an early example of current trends, like crowdfunding, which demand that entrepreneurs, including media producers, build a demonstrated fan community and create a substantial mythology around a product before the product is anywhere near physical form. Though the cybersuits Howard Rheingold imagined still remain a virtual technology, the 1990s saw some important teledildonic attempts, most falling on the line between “virtual” and “actual.”

Women in the Cybersexual Future of the 1990s

Women played an important part in sex and technology fans’ visions of the future of pornography and sexuality, particularly compared to some other sectors of the technology industry and the science fiction fandom. *The Joy of Cybersex* includes two male and two female co-authors for complete gender equality, suggesting how the topic of sex offered some women working in technology a chance to write about their experiences. The book’s section on BBSes also represented a debut publication for Nancy Tamosaitis, a former public relations adviser for a software company. Tamosaitis characterizes BBSes as spaces of unprecedented power for women:

Women in the straight or bisexual adult bulletin board world wield an immensely high level of power. According to *Boardwatch Magazine*, only 10 percent of bulletin board callers are female. The other 90 percent who are males are eager, often desperate, to talk with female callers. Female callers have their pick in choosing the

digital cream of the crop. I was impressed by the male gallantry displayed on the boards.³⁸⁹

Though Tamosaitis reports the ratio of men to women in BBS culture was highly unbalanced, she frames this information as a selling point for women interested in exploring cybersex. On a hetero- or bisexual adult BBS, gender imbalance could work to women's favor, as men would have to compete for the attention of the few women callers. The section on "cybersex visions" promised an ever-more-female future, featuring one interview with a male technology developer (Larry Miler of Interotica), but two with women in cybersex and science fiction. Jill Hunt appears as the animator who produced the famous cybersex scene in *The Lawnmower Man*, and Lisa Palac is rightfully named as a "chief visionary on the cybersex frontier."³⁹⁰ However, while women's participation in teledildonics and cybersex was often mobilized to legitimate the larger technology industry, the cybersex visions of tech writers and innovators like Lisa Palac, Susie Bright, and Brenda Laurel were also a counterhaptic challenge to the teledildonic theory of media history.

Palac made two major contributions to teledildonics in the early 1990s: editing the magazine *Future Sex*, whose second issue featured one of the most famous depictions of cybersex interfaces, and co-producing the 3-D immersive audio series *Cyborgasm*. The opposition of these two projects demonstrates the complexity of the relationship between technology and fantasy, and the relationship between women and teledildonic futurism, in 1990s technoculture fandom. The cover and "Love Machine" spread in *Future Sex* issue 2 was a parody Palac commissioned in part to voice her frustration over the limited

³⁸⁹ Nancy Tamosaitis, "Mama Told Me Not to Come", 86.

³⁹⁰ Robinson et. al., *The Joy of Cybersex*, 282.

imagination of the very publication she was editing. For this cybersex-focused issue, Palac wrote a takedown of technologized sexual futurism called “Getting Behind the Future.”³⁹¹ “The last frontier of sexuality isn’t some intergalactic tactile data fuck: it’s your ass,” Palac begins, cutting straight to cybersex’s AIDS-phobic undertones.³⁹² “Is it safe to have anal sex? Wear your rubbers and the answer is yes.” Palac’s introduction sets the tone for a discussion of cybersex and sexual futurism that foregrounds bodily sexuality and safer sex practices, rather than imagining these things as something the future will leave behind.

Palac’s second major contribution was released at roughly the same time as the second issue of *Future Sex. Cyborgasm*, an album of “virtual 3-D audio” produced with engineer Ron Gompertz featured audio performances by Susie Bright, Don Bajema, Mistress Kat, and Annie Sprinkle, among others.³⁹³ While the cover story of *Future Sex* issue 2 both engaged in the trend of predicting the future of technological sex and parodied fans’ desire to know more about this future, *Cyborgasm* used what Palac considered to be the most immersive virtual technology of the time to engage listener fantasy.³⁹⁴ However, while the promise of teledildonic cybersex parodied in *Future Sex* was to expand the number of senses engaged by media through direct tactile stimulation, *Cyborgasm* drew from the premise that sensory deprivation could produce enhanced synesthetic experiences, with audio stimulating touch in listeners who had their eyes covered. The liner notes to *Cyborgasm* recommend a particular style of consumption for the piece:

³⁹¹ Lisa Palac, “Getting Behind the Future,” *Future Sex 2* (1992), 6–7.

³⁹² Palac, “Getting Behind the Future,” 6.

³⁹³ Lisa Palac and Ron Gompertz, *Cyborgasm* (Algorithm, 1993), Compact Disk.

³⁹⁴ Palac, *The Edge of the Bed*, 77.

To have the best Cyborgasmic experience, we suggest the following:

1. Get comfortable in a quiet place
2. Put on your headphones. (You must wear headphones to get the full 3D effect. The better the headphone quality, the better the 3D effect.)
3. Dim the lights and close your eyes. Wear our eco-goggles, so you're not distracted by any visual stimuli.
4. Listen.³⁹⁵

Anne Friedberg has argued that as a media experience becomes more immersive, the body becomes more immobile, which Friedberg links to viewer passivity.³⁹⁶ *Cyborgasm's* instructions draw upon this principle, encouraging listeners to voluntarily sequester themselves with the album to make the experience more immersive. The opening track, a guided meditation led by Annie Sprinkle, asks listeners to become more mindful of the sensations already running through their bodies. What made *Cyborgasm's* virtual audio "virtual" was its enhanced use of stereo to simulate sound in 3-D space. The album uses this technology in different ways, from simulating a mistress's whip cracking at different spots around the listener's head, to immersing the listener in a room full of couples having sex, to telling the story of a supernatural sexual encounter. The intensity of *Cyborgasm's* simulation is dependent on the context in which it is consumed. Most tracks work well with or without the conditions recommended in the liner notes, particularly for existing fans of literary and

³⁹⁵ Lisa Palac and Ron Gompertz, *Cyborgasm* (Algorithm, 1993), Liner Notes.

³⁹⁶ Anne Friedberg, *Window Shopping: Cinema and the Postmodern* (Berkeley: University of California Press, 1993), 28.

audio erotica. Indeed, in Bright's terms, the 3-D effect could be considered an optional "accessory" to the experience.

Both *Cyborgasm* and *Future Sex* issue 2 engage in technology and fantasy: *Cyborgasm* foregrounds the relationship between fantasy and technology, making listeners aware of the conscious decision to immerse themselves in "virtual" audio, and *Future Sex*'s parody of teledildonics engages technical-sounding language to make imaginary technologies seem more real, diminishing the role of fantasy in what is essentially science fiction. *Cyborgasm* could be seen as an example of how actual VR works differently than the virtual VR depicted in *Future Sex* issue 2. However, the opposition between *Cyborgasm* and *Future Sex* also demonstrates how virtual VR was also far more accessible to produce than actual VR. Virginia Spear and Peter Roper write: "if you're interested in trying your hand at your own recordings with this new technology, you'll be happy to hear that Lasting Impression has reduced the price of its 3-D Sonic Imaging System. It's now only \$16,500. Pick one up on your way back from the supermarket."³⁹⁷ Anal sex, in Palac's terms, would also constitute a more accessible sexual future, as simple as putting on a rubber. However, the format of *Future Sex*, with its combination of adult photo spreads primarily featuring images of nude women, articles, and erotic fiction, could make its style of teledildonic fantasy less accessible to some women than *Cyborgasm*, or, indeed, anal sex. Indeed, prevailing discourses surrounding pornography "for women" in the 1990s argued that soft core content, and content less focused on visual stimulation would appeal more to female audiences, while visually-oriented content would appeal more to men. As Jane Juffer argues, such

³⁹⁷ Peter Spear and Virginia Soper, "Looking for Love on All the Right Disks," in *The Joy of Cybersex*.

domesticated pornography was becoming more and more accessible to women in the private sphere throughout the 1990s.³⁹⁸

The discourses of “women in pornography” and “women in technology” proved similarly powerful but tokenizing during this time period. As Laine Nooney argues, even women at the center of technology development, like game developer Roberta Williams of Sierra On-Line, found themselves singled out as unexpected “outliers,” expected to speak for their gender in broad terms.³⁹⁹ Nooney writes: “Videogame history does not know how to ‘make sense’ of Roberta Williams except to single her out. . . . Roberta occupies a *pedestal* more than a *context*, functioning as the gender-balancing notch on a game history timeline that is more than happy to welcome her as an early one-off representative of ‘women and gaming.’”⁴⁰⁰ Women who spoke on issues of sex and technology in the 1990s occupied a similar position to Roberta Williams, and to the women on BBSes portrayed in Tamosaitis’s account. Though women’s—particularly white women’s—perspectives on the future of cybersex were frequently solicited and cited, they were also expected to speak as an interesting minority within the larger technology culture.

Donna Haraway famously described the complex and contradictory position of women in relation to machine sexuality at the end of the twentieth century in her “Cyborg Manifesto”: “Only by being out of place could we take intense pleasure in machines, and then with excuses that this was organic activity after all, appropriate to females. Cyborgs

³⁹⁸ Jane Juffer, *At Home with Pornography*.

³⁹⁹ Laine Nooney, “A Pedestal, A Table, A Love Letter: Archaeologies of Gender in Videogame History,” *Game Studies* 13, no. 2 (December 2013), accessed 29 September 2016, gamestudies.org/1302/articles/nooney.

⁴⁰⁰ Nooney, “A Pedestal, A Table, A Love Letter.”

might consider more seriously the partial, fluid, sometimes aspect of sex and sexual embodiment.”⁴⁰¹ Early digital feminists frequently used their position between insider and outsider, human and machine, to make important points about what the future of virtual sex should be, though they more rarely posed the challenge to binary gender Haraway discusses in terms of cyborg feminism. In science and technology driven workplaces, dominant associations of women with affect, creativity, and the body, and men with technological expertise and disembodiment could be a disadvantage. However, in discussions of sexuality, women’s assumed “natural” talents made them the perfect spokespeople for more creative, more embodied, and more sensuous sexual futures. For example, in conversation with Susie Bright about gender and virtual reality, Brenda Laurel commented:

I know from fifteen years experience with computer guys that we have a class of people we call nerds who are radically uncomfortable with their bodies and their sexuality. . . . When men talk about virtual reality . . . they often use phrases like ‘out of body experience’ and ‘leaving the body.’ . . . When women talk about VR they speak of taking the body with them into another world. The idea is to take these wonderful sense organs *with* us, not to leave our bodies humped over a keyboard while our brain zips off down some network.⁴⁰²

Here Laurel argues for the importance of women in discussions of virtual reality by reproducing binary gender stereotypes, arguing that women impart a more sensuous

⁴⁰¹ Donna Haraway, “A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century” [1991], in *The Cybercultures Reader*, David Bell and Barbara M. Kennedy, eds. (New York: Routledge, 2000), 315.

⁴⁰² Brenda Laurel, quoted in Susie Bright, “The Virtual Orgasm,” in *Susie Bright’s Sexual Reality: A Virtual Sex World Reader* (San Francisco: Cleis Press, 1992), 66–67.

embodied sensibility to a cold and disembodied world of male “nerds.” This is a complex argument: it suggests more women should be involved in the development of technologies like VR, yet it also seems to undermine women’s ability to challenge workplace stereotypes, and downplayed any role computers and computer culture may play in challenging binary gender. It is also a lasting argument about women’s role in technology culture. As seen in Chapter 2, critics of videogame culture have called upon women game designers to bring necessary “empathy” to the presumed apathetic and technical field of game design. Queer women in game design have long been expected to bring embodiment, sexuality, and emotion to technology culture, beginning with Laurel, who went on to co-found the groundbreaking “games for girls” company Purple Moon. While contemporary queer game designers have challenged this narrative, they have also mobilized their status as presumed experts in the areas of sexuality, gender, embodiment, and affect to do so.

Other feminists of this time period marketed themselves as non-experts, using their position outside dominant technology culture to argue they could better represent the interests of average people. Though Brenda Laurel spoke from the world of technology, being an alumna of the Atari Lab,⁴⁰³ Lisa Palac and Susie Bright regularly downplayed their technological expertise to emphasize that virtual reality did not have to be about complex computer software and hardware, even as they tested the latest equipment, and even produced high-tech virtual experiences like *Cyborgasm*. In keeping with Laurel’s point about computers and embodiment, Palac writes, “When I first signed on as *Future Sex* editor, I didn’t know much about future technology and, frankly, I didn’t care. I wasn’t *into*

⁴⁰³ See Alluquère Rosanne Stone, “The End of Innocence, Part 1: Cyberdämmerung at the Atari Lab,” In *The War of Desire and Technology at the Close of the Mechanical Age*.

computers. . . . how could technology, which I always viewed as alienating, densely mathematical and potentially deadly, possibly enhance the highly sensual experience of sex?”⁴⁰⁴ Bright begins *Susie Bright’s Sexual Reality* with a similar disclaimer: “When I first heard the expression ‘virtual reality,’ or even the buzzword ‘virtual’ all by itself, I had no idea what it meant. . . . I spent the first week of my research going, ‘I don’t get it.’”⁴⁰⁵ In contrast, Howard Rheingold begins *Virtual Reality* with a bulleted list of locations around the world he has visited, along with a description of the moment he became interested in virtual reality that emphasizes how long he has been involved with the topic (“My own odyssey through the realms of virtual reality research and development actually began years ago”).⁴⁰⁶ Though Rheingold, like Palac and Bright, is a journalist who is famous in part for his discussions of technology and sexuality, Palac and Bright represent themselves as relative novices to technology, while Rheingold demonstrates his expertise.

However, Palac and Bright’s openness about their initial skepticism of technology allows them to represent themselves and the technologies they write about as accessible to the general public. Moreover, while Rheingold’s list reproduces the image of science and technology as the province of far-flung university and corporate research labs, Palac and Bright are invested in popularizing the topic, and challenging the idea of virtual reality as a purely high-technology experience. As Bright writes, “You don’t have to wait for any equipment to have a virtual experience. You’ve already had it. Every time you close your eyes and touch yourself, the mind pirouettes, and every sort of feeling floods your body. . . .

⁴⁰⁴ Palac. *The Edge of the Bed*, 74–75.

⁴⁰⁵ Susie Bright, *Susie Bright’s Sexual Reality: A Virtual Sex World Reader*, 9.

⁴⁰⁶ Howard Rheingold, *Virtual Reality*, 19.

Fantasy is the ultimate virtual experience because it feels *so real* and requires no accessories.”⁴⁰⁷ Here fantasy becomes the ultimate virtual VR, as Bright sets up an opposition between “fantasy,” as produced by the individual, and “accessories,” the expensive and inaccessible technological objects that take up the majority of Rheingold’s book. As the objects of desire for the nascent fandom around virtual reality and teledildonics, these “accessories” do not have to be tested to be consumed. Popular interest in stories about inaccessible virtual reality technologies, including the nonexistent technology behind “teledildonics,” demonstrates that the division between fantasies and accessories is not so clear-cut. While Bright and other journalists writing about technology were able to test early virtual reality equipment, BBSes, or CD-ROM, many more consumers engaged with these new accessories through fantasy, projecting desire onto paratexts like the advertising material surrounding *Future Sex*, or Rheingold’s futuristic fantasies, to which he devotes nearly fifty pages.⁴⁰⁸

Demand for certain stories about the future of sex over others exhausted some women who were framed as technosex luminaries, including Palac. Her memoir of the period, *The Edge of the Bed: How Dirty Pictures Changed My Life*, includes a mock interview with the author to express the limited and repetitive questions she faced from journalists and other fans:

Q: What about the Virtual Reality sex suits?

A: Oh, they don’t exist. The most exciting technology that’s available today are computer bulletin board systems, BBSes, which can be linked to the

⁴⁰⁷ Bright, *Susie Bright’s Sexual Reality*, 10.

⁴⁰⁸ Rheingold, *Virtual Reality*, 343–91.

Internet, which is an international network of computer networks. This is what's changing people's lives—words. Simple, ASCII text. And it is this particular form of cybersex that's cutting across physical and geographic boundaries and redefining our approach to relationships, our ideas about gender, eroticism, the definition of 'community standards'—even sex itself.

Q: But what about the VR sex suits?

A: When people say they're having sex online, I mean, what are they really doing? They're having sex!

Q: Right. But what about the sex suits?

A: I think Howard Rheingold is responsible for them.⁴⁰⁹

Palac's frustration with interviewers reflects the way she was represented in popular media of the time. After beginning her career as an editor in San Francisco at the groundbreaking lesbian porn magazine *On Our Backs*, Palac writes of her frustration with *Future Sex*, a magazine funded and controlled by two less-than-feminist "fortysomething guys . . . looking for something fun to do with their spare change."⁴¹⁰ As the face of *Future Sex*, Palac served as a figurehead, certifying the magazine's content as "better and classier," nonthreatening, and possibly feminist, even as she struggled with her bosses to create a magazine she could feel proud of.⁴¹¹ When Palac appeared on the news magazine TV show *Hard Copy*, the segment's narration collapsed her identity as a fresh-faced young white woman with the content of *Future Sex*: "Imagine sex in the future . . . Imagine erotic magazines without a Hef

⁴⁰⁹ Palac, *The Edge of the Bed*, 91–92.

⁴¹⁰ Palac, *The Edge of the Bed*, 72.

⁴¹¹ Palac, *The Edge of the Bed*, 73–85.

or a Gooch or a Larry Flynt at the helm. Imagine this woman, a baby-faced yuppie. . .” Palac writes, “I talked about trying to create progressive pornography, but the situation was futile. After all, I had just signed my name to a magazine filled exclusively with nude women and science projects that didn’t exist.”⁴¹² Though Palac had become a symbol of technosex fandom in the 1990s, the mock interview above intimates how her perspective was marginalized compared to the overwhelming narrative of the teledildonic future of sex (as imagined by Howard Rheingold).

Palac’s experiences reflect some of the challenges women faced in technosex fandom of the 1990s. Palac, alongside other sex-positive feminists of the era including Susie Bright and Brenda Laurel, continuously argued that the future of virtual reality sex was being imagined in overly technological, visual, and tactile terms, while the current reality of text-based BBSes offered a more stimulating world of sexual fantasy. As Brenda Laurel told Susie Bright in 1992, “Virtual reality is about appearances, but ultimately it’s got to be about behavior and interaction. Otherwise it would be so boring that people would just skip it. I mean, who wants to pay the price to run around like a paper doll?”⁴¹³ Teledildonics, by offering the promise of physical touch to virtual reality, represented a future in which the “behavior and interaction” in virtual reality would take place through vision and touch, while BBSes, with their ASCII-based interaction, offered this promise through words and fantasy. Commentators on the future of sex in the 1990s engaged with teledildonics not as a technology that would soon exist, but as a popular future vision to be contested and pushed in a different direction. Faced with the teledildonic theory of media history as presented in

⁴¹² Palac, *The Edge of the Bed*, 86.

⁴¹³ Brenda Laurel, quoted in Susie Bright, “The Virtual Orgasm,” 70.

Rheingold's writing, feminists challenged the need for "VR sex suits" in the future of technologized sexuality, arguing physical touch would be less important to cybersex than wordplay, fantasy, and synesthesia.

This discussion of battles over the future of cybersex on the ground of the term teledildonics discusses the place of teledildonics as a thought experiment, tracing its origin point to the coining of the word by Howard Rheingold in the late-1980s. Arguments about the future of sexuality in virtual reality focused on the role of affect in relation to the role of imagined future cutaneous technologies. However, as Palac's *Cyborgasm* demonstrates, non-cutaneous cybersex technologies were still very haptic in their aspirations and their effects. The idea of virtual sex as haptic media did not necessitate the use of cutaneous interfaces like those proposed by Howard Rheingold. In fact, as Bright and Laurel argue, to dream that cutaneous interfaces of the future would make virtual reality truly immersive and truly haptic and/or embodied is to marginalize the role of haptic embodiment in existing cybersex technologies of the 1990s like BBSes, CD-ROM, 3-D Audio, and even Printers and Photoshop! In the realm of technology development and technosex fandom of this time period, teledildonics was a counterhaptic challenge to the idea of virtual reality as de-sexualized and primarily disembodied. However, feminist arguments about the role of affect and embodiment in existing textual or audiovisual cybersex presented a counterhaptic challenge to teledildonics' assumptions that future sexuality would have to include cutaneous interfaces to be haptic. Laura Marks's decision to focus on haptic visuality as a feminist strategy, rather than to study visual haptics like the Power Glove, or cutaneous haptic thought experiments like the teledildonics debated here, resonates with these digital feminist arguments against the idea of teledildonics as the sole future of sex. Arguments over the

status of cutaneous haptics and haptic visuality, textuality (BBSes), or aurality (*Cyborgasm*), are still very relevant today. However, once tinkerers and artists built cutaneous interfaces for cybersex, the terms of debates over teledildonics began to shift.

Beginning in the 1990s but continuing in the aughts and 2010s, debates over teledildonics began to take place in the realm of technology design, with arguments made in terms of tinkering, design, and user experience. This community of sex hackers coincided with the rise of online independent pornography, and the increasing power of online fan communities to shape media production and consumption. These hacker projects and art pieces are arguments about the future of sexuality in themselves. The fact that these arguments have been made in the form of cutaneous user interfaces makes them the clearest example of “haptics vs. haptics” so far in this project. In the sex hacking fandom of the aughts, cutaneous haptics competed with other forms of cutaneous haptics as haptic and counterhaptic visions of the future of sexuality in virtual reality.

This history of sex hacking fandom could be traced to the first long-distance teledildonic communication, which took place on December 8, 1993, as part of Stahl Stenslie and Kirk Woolford’s *cyberSM* project. The project “expanded upon text based virtual environments, such as Minitel, MUDs, or most BBSs . . . employing 3D graphics, live audio, and direct physical stimulation to allow participants to physically ‘touch’ each other over distances.”⁴¹⁴ Using this system, Stenslie and Woolford sent the first teledildonic signal from Paris, France to Cologne, Germany, in an exposition of three days. Stenslie describes the technology used to facilitate touch at a distance as “tele-tactile communication between two

⁴¹⁴ Stenslie, Stahl, “The cyberSM: A project by Stahl Stenslie,” July 2014, accessed 7 July 2015, stensliehome.files.wordpress.com/2014/07/the-cybersm-pdf.

or more participants in geographically separate locations,” with the aim of “adding a missing sense to electronic communication.”⁴¹⁵ *cyberSM* focused on issues of embodiment and character creation in virtual spaces, providing a range of 3-D scanned bodies users might inhabit in virtual space.⁴¹⁶ CyberSM delivered a version of the “VR sex suits” that gave Palac so much trouble, yet framed this “tele-touch” as an accessory to text chat environments and cultures, rather than attempting to reproduce dominant gender and sexual hierarchies as they existed offline. In particular, cyberSM demonstrates how erotic text chat environments interacted with the emergent politics of transgender and the expansion of access to kink practices and cultures, including the bondage portrayed in some of the body scans and the “SM” referenced in the project’s title.⁴¹⁷

The project also demonstrates some of the limitations visual and tactile representation introduced to the world of text chat. CyberSM engaged transgender by allowing users to choose a variety of “male” and “female” body scans, combining upper and lower body halves at will. However, compared to the fantasies described in *The Joy of Cybersex*—being a dolphin, snake or extraterrestrial, creating new body parts, being an inanimate object—or those represented in *Cyborgasm* (which includes an undead scene), these body-swapping fantasies appear tame, simplifying gender fantasy to a binary system determined by embodiment. Moreover, by having users choose between a fixed repertoire of

⁴¹⁵ Stahl Stenslie, “cyberSM,” *YouTube* 21 October 2008, accessed 21 November 2015, [youtube.com/watch?v=pUN6FvObvSY&feature=youtu.be](https://www.youtube.com/watch?v=pUN6FvObvSY&feature=youtu.be).

⁴¹⁶ Stenslie, “cyberSM.”

⁴¹⁷ On how transgender developed as a political category in the 1990s, see David Valentine. *Imagining Transgender: An Ethnography of a Category* (Durham, NC: Duke University Press, 2007). On the transformation of kink in the 1990s, specifically in the San Francisco Bay Area, see Margot Weiss. *Techniques of Pleasure*.

scanned bodies at all, cyberSM limits users to choosing between thin white bodies in varying levels of bondage, hardly a diverse selection. While the opening track of *Cyborgasm* invites users to feel erotic sensations all over their bodies, the suits used in cyberSM concentrate these sensations in certain areas, enhancing stimulation in certain areas while de-prioritizing others. Thus cyberSM demonstrates the feminist critiques of teledildonics discussed in this section, showing how the addition of vision and touch to text chat could limit rather than expand these platforms' sexual and gender possibilities.

In its first generation, teledildonics represented an appropriate technology for fans to interact with technological progress and sexuality. Many commentators downplayed their technological expertise, and accessibility was prioritized over the use of high technology. Though early “actual” technologies like cyberSM did exist in the 1990s, it would be wrong to call teledildonics “virtual.” Instead, the term “teledildonics” described a real *discursive* technology during this period, as technologies frequently circulated through their paratexts, and the division between fantasy and reality was sometimes unclear to journalists and fans. Fantasy was the site of debate in the first generation of teledildonics, with the fantasy of teledildonics appearing at odds with the valorization of sensory deprivation as immersion in VR experiences like *Cyborgasm*.

The Teledildonic Theory of Communication: Second-Generation Teledildonics (1998-2009)

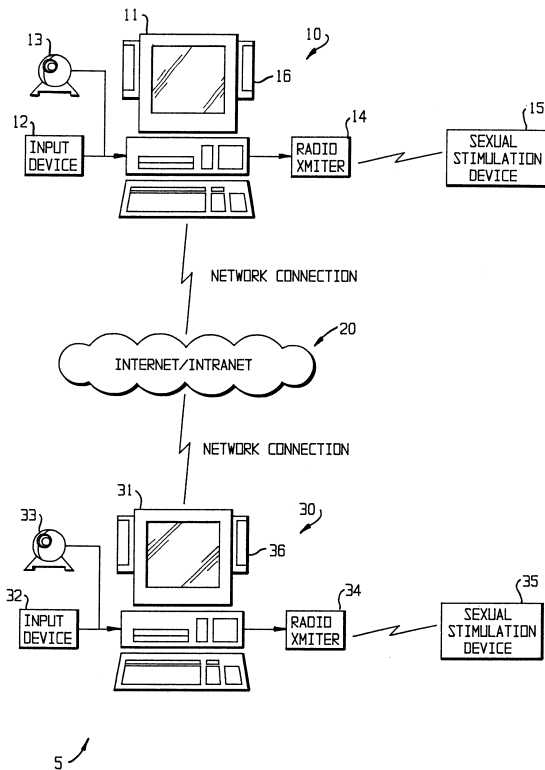


Figure 3: US Patent 6368268B1 (1998, 2002).

In 1998, Warren J. Sandvick, Jim W. Hughes, and David Alan Atkinson filed US Patent 6,368,268 B1, “Method and device for interactive virtual control of sexual aids using digital computer networks.”⁴¹⁸ This moment has proved crucial for the history of teledildonics development in the United States, because the patent framed teledildonics not as a vision of the future or conceptual art project, but as a particular invention designed to be manufactured as a consumer product. This was also a crucial moment because the various owners of the patent, most recently TZU, have used it to demand licensing fees from commercial teledildonics developers. Fans of sex and technology since 1998 have called the owners of

⁴¹⁸ Sandvick, Warren J., Jim W. Hughes, and David Alan Atkinson. Method and Device for Interactive Virtual Control of Sexual Aids Using Digital Computer Networks.

this patent “patent trolls,” because they have used it to earn money from teledildonics developers, rather than to develop an invention based on the patent.⁴¹⁹ Fans and journalists have also criticized how broad the patent is: the diagram included in the patent application (Fig. 3) defines its object as any “sexual stimulation device” connected to a PC, which is connected to an “Internet/Intranet” represented in the diagram by a cartoonish cloud. The diagram portrays what might be called the *teledildonic model of media communication*—the idea that PCs and computer networks are self-contained black boxes that function perfectly, thus the future of media development will lie with the developers of better peripherals to enhance this already-optimized experience. This confidence in existing Internet infrastructure as a “cloud” to be connected to “black boxes” is not unique to teledildonics by any means. Why, then, could such a broad patent of this idea exist? The proliferation of patent trolls in the area of teledildonics has been possible because the entire area was once a thought experiment, like this patent, rather than a technology design, such as those created by the individuals and companies sued by successive owners of the patent. The teledildonic theory of media communication is a certain model of haptic media against which cutaneous technology experts, hackers, and hobbyists have positioned themselves.

The experts, hobbyists, and fans of teledildonics’ second generation dedicated themselves to critiquing this teledildonic model of media communication, to critiquing the various technologies claiming to be teledildonic from 1998 to the late 2000s, and to developing their own teledildonic projects that expanded upon and/or parodied existing products and models. Engineer, hobbyist, and teledildonics expert Kyle Machulis (also

⁴¹⁹ See Newitz, “Sorry You Can’t Have Any More Sex Toys”; Kyle Machulis. “Patent Troll vs. Everyone: Teledildonics Patent Lawsuit.”

known as qdot), and his blog, Metafetish (formerly known as Slashdong), played a central role in building and maintaining a fan base for teledildonics and related concepts from the 2000s to the early 2010s. Technology and sexuality writer Violet Blue also called for better design in the emerging teledildonics market, as well as more access for Macintosh users. Finally, the Austrian sex and technology conference Arse Elektronika, run by Johannes Grenzfurthner and held annually in San Francisco from 2007 to 2015, brought together academics, fans, and hobbyists, and provided a public forum for the demonstration of many second-wave teledildonics experiments. The key difference between 1990s “first generation” and aughts “second generation” teledildonics was the confidence that teledildonic technologies could be built as working products. This seriousness about teledildonics as an area of engineering and design led second-generation teledildonics fans to take a more expert and more critical stance about the technology of teledildonics.

The second generation of teledildonics coincides with the development of the first commercial teledildonic or “cyberdildonic” products. SafeSexPlus.com debuted a line of cybersex toys in 1999 to enhance their iFriends adult webcam network, and Vivid attempted to develop a suit to be worn as a cybersex or phone sex accessory between 1999 and 2001. By 2001, *PC Mag* called this field of “interactive gear and toys that can enhance the online cybersex experience with actual physical sensation” *cyberdildonics*, linking the phenomenon of networked sex toys not to telepresence or telephony (phone sex), but to cyberspace and cybersex.⁴²⁰ Though Vivid’s cybersuit never did hit the market, a few more Internet-connected sex toys were released throughout the early 2000s, including Simulator (2004), an

⁴²⁰ Behr, Mary E, “High Tech Sex,” *PC Mag* 4 September 2001, accessed 7 July 2015, pcmag.com/article2/0,2817,36076,00.asp.

online interface that allowed a partner to control a rabbit-style toy over the Internet, and Xcite Touch (2005), a line of sex toys designed to be used with the virtual world Second Life.⁴²¹

Reporting on cyberdildonics contributed to the increasing public presence of adult novelty more generally. Jane Juffer chronicles how vibrators transitioned from medicalized sex aids within an ambivalent discourse of liberation and technophobia in feminist and popular discourse of the 1970s and 1980s, to part of women's everyday lives by the late 1990s.⁴²² However, technophobic sentiment surrounding sex toys remained: like the Rabbit Habit (Vibratex, 1984) as portrayed in a 1998 episode of *Sex and the City*, cyberdildonics drew negative reviews for its relationship to “the real thing,” sex imagined in the most heteronormative terms.⁴²³ Just as the Rabbit Habit appeared on television as an addicting substitute for men, Joel Stein of *TIME*, who tested early teledildonics for the publication in 2000, found these penetrable sex toys an inferior substitute for masturbation “for men with no hands.”⁴²⁴ Unlike early-90s critics, who envisioned cybersex as an extension of changing sexuality in the age of the Internet, Stein hopes cybersex will help sex stay the same.

⁴²¹ Simulate Entertainment, LLC, “Product Information: The Simulator,” *Simulator: Do More Than Just Watch!* 2003, accessed 8 July 2015, *Internet Archive Wayback Machine* 14 February 2005, [web.archive.org/web/20050214093329/http://www.simulator.com/product-info.html](http://www.simulator.com/product-info.html); Eventide Enterprises, “About Xcite! Touch,” *Xcite! Sexual Equipment* 2005, accessed 8 July 2015, getxcite.com/touchinfo_v2.php. See also Regina Lynn, “Ins and Outs of Teledildonics,” *Wired* 24 September 2004, accessed 8 July 2015, archive.wired.com/culture/lifestyle/commentary/sexdrive/2004/09/65064.

⁴²² Juffer, *At Home With Pornography*, 87–98.

⁴²³ See “The Turtle and the Hare,” *Sex and the City* season 1, episode 9 (August 8, 1998).

⁴²⁴ Joel Stein, “Will Cybersex Be Better than Real Sex?” *TIME* 19 June 2000, accessed 8 July 2015, content.time.com/time/magazine/article/0,9171,997256-1,00.html.

Following Rheingold rather than Palac, Stein writes: “The holy grail of pornography . . . has always been a machine that delivers a virtual experience so real that it is indistinguishable from sex, other than the fact that it isn’t at all disappointing.”⁴²⁵ Far from fantasizing about gender fluidity, anonymity, and other features of “future sex,” Stein’s ideal application of cyberdildonics, indeed of all pornography, would be to fix the “disappointments” of dominant heteronormative sexuality. Rachel Maines argues that the vibrator fulfilled a similar function since their introduction to doctors’ offices in the 1880s, taking over “the job nobody else wanted” of producing female orgasms in patriarchal Western society.⁴²⁶ For Stein, the disappointments of sexuality, online and offline, stem from his inability to express his emotions and desires, thus making him “incapable of having phone sex.”⁴²⁷ Reacting to the 1990s culture of BBSes and phone sex, Stein hopes a physical interface will remove this communication block. However, the use of a penetrable sex toy disgusts him, and his phone sex conversation proves as unsatisfying as always, despite the best efforts of Wicked Pictures’ Alexa Rae to draw him out. Stein writes, “Virtual sex was indeed eerily like real sex for me.”⁴²⁸ (Notably, this “real sex” includes both in-person sex and phone sex!) While Joel Stein does not represent himself as a fan of the cyberdildonic device he tests, Stein’s fantasy of sex toys removing the disappointments of “real sex” echoes the confidence of aughts sex tinkerers that better industrial design in adult consumer electronics could improve sexuality for everyone. In contrast to Stein’s vision of predictable heterosexuality, however,

⁴²⁵ Stein, “Will Cybersex Be Better than Real Sex?”

⁴²⁶ Maines, *The Technology of Orgasm*, p. 20.

⁴²⁷ Stein, “Will Cybersex Be Better than Real Sex?”

⁴²⁸ Stein, “Will Cybersex Be Better than Real Sex?”

the second generation of teledildonics fans advocated for consumer-friendly sex toy design that would expand the realm of sexual experience. Countering Stein's discomfort over sex toys, and long-lasting assumptions that sex toys are for cisgender women, sex hackers in the aughts evangelized sex toys as expansions of heteronormative sexual expectations for an inclusive group of cisgender and transgender men, women, genderqueer folks, straight or not.

Counterhaptic Second-Generation Teledildonics Pioneers

When sex and technology blogger Violet Blue surveyed the field of networked sex toys in a 2005 presentation, she found it disappointing. Joking that development in teledildonics from the 1990s to the early 2000s could be seen as a “bad idea contest,” Blue argued that Internet-connected sex toys were so far unresponsive to the needs of actual consumers.⁴²⁹ As in the first wave described above, journalists both reported on and helped create what Blue termed a “resurgent wave” of teledildonics beginning in the mid-aughts.⁴³⁰ Hobbyists and “makers” also participated in teledildonics’ second generation. These journalistic and tinkering sex and technology fans were critical of commercial sex machines, but at the same time worked to highlight the activities of amateurs and hobbyists building devices for their own use, or modifying existing media interfaces for sexual uses. Timothy Archibald researched fans and builders of sex machines beginning in 2002, presenting his photojournalism and interviews in

⁴²⁹ Violet Blue, “Reading the Dorkbot SF Teledildonics Presentation,” *Open Source Sex* 13 (19 June 2005), *iTunes* podcast, accessed 28 July 2015.

⁴³⁰ Violet Blue, “FriXion: Haptic Technology and Remote Sex Devs Seek Beta Testers and Funding,” *Tiny nibbles* 27 January 2014, accessed 30 September 2016, tinybubbles.com/blogarchives/2014/01/frixion-haptic-technology-and-remote-sex-devs-seek-beta-testers-and-funding.

a 2005 book.⁴³¹ Archibald’s book represents sex machine hobbyists as overwhelmingly white, for the most part heterosexual, and often Midwestern. He writes, “This new sexual underground doesn’t look anything like I thought it would. . . . People in tiny towns and suburbs across America [are] building, selling, and collecting these machines, and sharing their ideas with each other.”⁴³² This vision of sex hackers sells the pastime as a nonthreatening activity to the majority of overwhelmingly white, male, and heterosexual technology professionals. However, it also challenges the idea of even heterosexual “middle America” as purely heteronormative. If these “normals”—straight married Midwesterners, symbolic of “natural sexuality”—could be secretly building kinky sex machines, these machines may be normal and natural, or normal is not as “natural” as we may think. Sex machines from commercially-available sex toys to one-of-a-kind sex machines became symbolic of the queerness of even straight sexuality through technology. Sex toys circulated as haptic media in the sense that they expanded cutaneous possibilities in sexuality for multiple bodies, genders, and sexual orientations, including the realm of these *new normals*, as the couples in *Sex Machines* might be called. There are many examples of aughts hacker teledildonics, many of which can be found in the archives of Machulis’s blog or the catalogs of the ongoing *Arse Elektronika* sex and technology conference (2007–). While there is a need for more scholarly attention to sexual hacker projects and their place in technology culture and fandom, this section focuses on a few examples of sexual videogame hacks as counterhaptic arguments about teledildonics and videogame culture as a counterpoint to the discussions around affect and empathy as haptic media in Chapter 2.

⁴³¹ Archibald, *Sex Machines*, 6.

⁴³² Archibald, *Sex Machines*, 6–7.

Coming from the reportedly heteronormative and patriarchal realm of videogame design and fandom, women in games contributed some widely-publicized sexual hacks that came to symbolize the kinkiness or even queer-adjacent nature of videogame sexuality. In perhaps the most famous example of videogame haptics, Jane Pinckard's 2002 review of the Trance Vibrator peripheral for the game *Rez* (United Game Artists, 2001) on the PlayStation 2 described her sexual experience with a videogame controller as an alternative form of gameplay.⁴³³ Pinckard discusses how she and her partner Justin used the trance vibrator to add a sexual element to their gaming; he held the game controller, while she placed the trance vibrator in her lap "to concentrate more on the, er, *physical* aspect of the game."⁴³⁴ This story of sexual communication through gaming added a mythical quality to *Rez* in some sectors games culture, and found its way into academic discussions of the game. McKenzie Wark writes in *Gamer Theory*: "Plug in the Japanese edition with *Trance Vibrator* and *Rez* can be not only an aural and visual, but also a sexual machine, if the Vibrator is applied to the right spot. . . . to each their own target."⁴³⁵ Taken from a discussion that frames *Rez* in terms of "battle," this quotation envisions sexual stimulation in terms of a first-person shooting game, where a partner's genitals become a target for stimulation, with orgasm as the ultimate goal, or mission.

⁴³³ Jane Pinckard, "Sex in Games: Rez + Vibrator," *GameGirlAdvance* 26 October 2002, accessed 28 November 2015, gamegirladvance.com/2002/10/sex-in-games-rezvibrator.html. Accessed 28 November 2015.

⁴³⁴ Pinckard, "Sex in Games: Rez + Vibrator."

⁴³⁵ McKenzie Wark. "Battle (on *Rez*)," in *Gamer Theory* (Cambridge, MA: Harvard University Press, 2007), 107–8.

This first example of sexual videogame controller hacking may have gained so much public recognition because it has been framed as a heteronormative mapping of sexuality onto gaming, in which a female partner serves as a “target” for a male partner’s play in a first-person shooting game. However, as an argument about videogames, Jane Pinckard’s account of *Rez* could be seen as a challenge to models of player, gameplay, and game as well as assumptions about of male videogame mastery. First, it centralizes the experience of a “non-controlling” player in *Rez* gameplay, framing such a gamer not merely as an onlooker, but as an integral part of gameplay and game itself. Pinckard’s argument about *Rez* thus agrees to some extent with James Newman’s 2002 challenge to “the myth of the ergodic videogame,” which frames non-controlling players as “secondary” participants in gaming.⁴³⁶ This account of *Rez* reverses the relationship of controlling and non-controlling player, making the non-controlling player’s experience the “primary” sexual aspect of the game, while the controlling player’s experience is less centrally sexual. If we agree with Wark’s assessment of the non-controlling player of *Rez* as a game “target” for the controlling player, this account of the Trance Vibrator challenges the boundaries of the game itself, showing how a participant can be player and game at the same time. This model also anticipates the concept of the game as a participant with agency seen in Robert Yang’s work. Finally, though Pinckard’s discussion of the *Rez* Trance Vibrator models a two-player system with a female partner using the vibrator and a male partner holding the controller, this is not the only way the Trance Vibrator could be used. Because *Rez* is designed as a single-player game, the Trance Vibrator may have originally been used to vibrate the controlling player,

⁴³⁶ James Newman, “The Myth of the Ergodic Videogame: Some thoughts on player-character relationships in videogames,” *Game Studies* 2, no. 1 (2002), accessed 30 September 2016, gamestudies.org/0102/newman/.

like the vibrators in other videogame controllers. Any combination of single or multiple players could use the Trance Vibrator for sexual stimulation; this technology does not require certain genders, sexual orientations, or embodiments to be used in a sexual way.

The sexual controller hacks that followed Pinckard's piece continued to challenge heteronormative game sexuality along these lines. Kyle Machulis's 2005 "SeXBox" built from Pinckard's ideas to make vibrating game peripherals accessible to gamers without access to the Japanese PS2 peripheral, picturing game success in terms of self-stimulation. Machulis also specifically wrote that the vibrator should not be mistaken for a female-only toy. Noah Weinstein and Randy Sarafan's "Joydick" reversed the controlling/non-controlling relationship in Pinckard's piece by picturing the gamer's genitals as the controller; sexual stimulation and game success thus were placed in opposition to each other ("Now even if you lose the game, you can win at life"). Sexual hacks like those by Machulis and Weinstein/Sarafan also encouraged reader participation because they existed primarily as sets of instructions to be built by fans. How are these projects teledildonic? And how did these sexual hacks transform the public narrative and understood history of teledildonics as a term and technological design trend? First, sex and technology fans of the aughts shifted the provenance of the term away from Rheingold's portmanteau to one of its components, the term "dildonics," coined by alternative computing pioneer Ted Nelson.

Alternative Computing and Alternative Teledildonics

Sex and technology fandom since the year 2000 has centered makers, hobbyists and entrepreneurs, with a particular focus on alternative technology development's ability to transform sexuality. This view of engineering and design as the birthplace of alternative

sexual cultures may be responsible for the common of the term teledildonics to Ted Nelson, a prominent 1970s computer counterculture writer, who coined the term “psycho-acoustic dildonics” in his book *Computer Lib/Dream Machines*. This attribution of the term to Ted Nelson in 1974 or 1975 is so ubiquitous it appeared on Teledildonics’ Wikipedia page as of November 2015.⁴³⁷ In another famous example, Violet Blue attributes teledildonics to Ted Nelson despite mentioning Rheingold, in *The Adventurous Couples’ Guide to Sex Toys* (2006):

Teledildonics refers to sexual encounters via a Web interface with a virtual partner. The clever word (combining elements of *tele*[distant], *dildo*, and *electronics*) has become a catchall term for anything from virtual reality suits to remote-controlled vibrators. *Teledildonics* was coined in the 1980s by Ted Nelson, though the term is best associated with Howard Rheingold’s 1991 book *Virtual Reality*.⁴³⁸

Though Blue goes on to discuss Rheingold’s use of teledildonics in *Virtual Reality*, Rheingold only attributes “dildonics” to Nelson in this account. Rheingold describes his own coining of “teledildonics” as a “thought experiment that got out of control.”⁴³⁹ However, Rheingold, like Blue, understands the ideological weight of tracing teledildonics’ history to Nelson. In a section titled “Teledildonics and Beyond,” Rheingold writes:

The word “dildonics” was coined in 1974 by that zany computer visionary Theodor Nelson (inventor of hypertext and designer of the world’s oldest unfinished software

⁴³⁷ “Teledildonics,” *Wikipedia*, last modified 23 October 2015, accessed 23 November 2015, wikipedia.org/wiki/Teledildonics.

⁴³⁸ Violet Blue, “Teledildonic Toys: Online Sex for Two,” in *The Adventurous Couple’s Guide to Sex Toys* [2006] (San Francisco: Cleis Press, 2013), 82.

⁴³⁹ Rheingold, *Virtual Reality*, 348.

project, appropriately named “Xanadu”™), to describe a machine (patent #3,875,932) invented by a San Francisco hardware hacker by the name of How Wachspress, a device capable of converting sound into tactile sensations. The erotogenic effect depends on where you, the consumer, decide to interface your anatomy with the tactile stimulator. VR raises the possibility of a far more sophisticated technology.⁴⁴⁰

Like commentators discussing the difference between Percepto and D-BOX in Chapter 3, Rheingold emphasizes the “far more sophisticated technology” of *tele*-dildonics which will be made possible by the VR described in his book, while using words like “zany,” “luminary,” and “unfinished” to describe Nelson and Wachspress. These two zany luminaries may add color to the story of the term teledildonics, but Rheingold sees VR as a far more “sophisticated technology” than their tinkering because of its superior immersive capacity, so far realized affectively and kinesthetically rather than cutaneously. Contemporaries of Rheingold understood him to have introduced the concept of “sex suits” described in his article on teledildonics, though this passage from Rheingold certainly attributes “dildonics” to Nelson. Blue’s attribution of teledildonics to Ted Nelson is not necessarily incorrect, however, though there is no evidence that the “tele-” portion of the term, taken from Marvin Minsky’s 1980 arguments about “telepresence,” could have been coined by Nelson in the 1970s.⁴⁴¹ This alternate origin story for teledildonics which emphasizes “dildonics” over “tele” has been more appealing to sex and technology fans since the year 2000, because it more accurately describes their methods and aspirations.

⁴⁴⁰ Rheingold, *Virtual Reality*, 345.

⁴⁴¹ Marvin Minsky, “Telepresence,” *OMNI* (June 1980), *MIT Media Lab*, accessed 30 September 2016, web.media.mit.edu/~minsky/papers/Telepresence.html.

Why might hackers and fans in the 21st century claim Ted Nelson as the inventor of teledildonics? In part because attributing teledildonics to Ted Nelson traces the term and the concept to a 1970s computing and engineering counterculture in northern California that has served as an origin point for a notion of the technology developer as romantic hero.⁴⁴² Nelson coined the term “dildonics” in his 1974 *Computer Lib/Dream Machines*, in reference to How Wachspress’s experiments in sound and vibration, which he called “psycho-acoustic dildonics.”⁴⁴³ Attributing teledildonics to Nelson thus traces the term to Wachspress, who could be viewed as a second origin point. Wachspress called his audio-vibration machine “the original acid trip of multimedia,” something he dreamed up while working as a guide at Cerebrum, a short-lived “intermedia” nightclub/art gallery that Gene Youngblood argued represented the possibilities of immersive media experience.⁴⁴⁴ Cerebrum was a live performance held in a nondescript warehouse in New York’s Lower East Side, highly constrained by its physical geography and limited to those who could travel to its location. Wachspress left Cerebrum inspired to bring the “idea of two-way tactile communication over a distance” to the larger public, “carrying it to its most outrageous extension, a fuck-by-phone machine.”⁴⁴⁵ Being a sound engineer, Wachspress designed a device to enhance the synesthetic qualities of sound vibration for tactile stimulation. Rolling Stone described

⁴⁴² See Thomas Streeter, *The Net Effect: Romanticism, Capitalism, and the Internet* (New York: NYU Press, 2010).

⁴⁴³ Theodor Nelson, “PSYCHO-ACOUSTIC DILDONICS,” in *Computer Lib/Dream Machines* (Self Published: 1974), DM9.

⁴⁴⁴ Gene Youngblood, *Expanded Cinema* (New York: Dutton & Co., Inc., 1970), 359.

⁴⁴⁵ Charles Perry, “Turn Up the Volume, My Foot’s Asleep!” *Rolling Stone* 26 September 1974, accessed 24 November 2015, rollingstone.com/culture/features/turn-up-the-volume-my-foots-asleep-19740926.

Wachspress's invention, a speaker with a wand to vibrate the body with the sounds of a favorite record, as "sonic stimulation."⁴⁴⁶ Adult magazine *Oui* called it "the first no-contact orgasm machine."⁴⁴⁷ Wachspress advertised the project as a "radio dildo."⁴⁴⁸ US Patent 3,875,932 A, "Audiotactile Stimulation and Communications System," issued to Wachspress in April 1975, describes the device in terms of synesthesia, arguing that the device communicates music through touch, a sensation he described in terms of "body music," "teletac," or "Auditac."⁴⁴⁹

While the story of Rheingold coining teledildonics begins with science fiction as theory, in the form of a misunderstood "thought experiment," the story of Nelson coining teledildonics begins with public technological demonstrations such as those performed by Wachspress to advertise his radio dildo. The *London Evening Standard* described such a demonstration:

The scene is a foggy, warm Wednesday night in San Francisco at the Glide Memorial Church in a basement room usually used for serving free dinners to senior citizens. But tonight How Wachspress, chief engineer at a local radio station, is unveiling his sonic stimulator to members of Sexual Awareness Restructured. . . . Briefly, a series of amplifiers, tapes, and sound distorters feed impulses to a small wooden box from

⁴⁴⁶ Perry, "Turn Up the Volume, My Foot's Asleep!"

⁴⁴⁷ Patrick Carr, "At Last! The No-Contact Orgasm!: Sonic Dildo," *Oui* (March 1974): 105–6, 130–32.

⁴⁴⁸ How Wachspress and Janette Keegan, "Radio Dildo," Advertisement for Auditac 1976, accessed 14 December 2015, auditac.com/TM/images/tm17.jpg.

⁴⁴⁹ How F. Wachspress. Audiotactile Stimulation and Communications System. 1975. US Patent 3,875,932 A, filed March 2, 1973 and issued April 8, 1975.

which emerges a vacuum cleaner-type tube, which itself can accommodate various attachments. ‘Any volunteers?’ asks How of his mixed audience, ranging from teens to the late middle-aged.⁴⁵⁰

The article highlights the “gadgetry” of the demonstration, as well as its atmosphere, which mixed a church basement with public sexuality, and included attendees of all ages.

However, this demonstration could also be understood as the presentation of a media theory in the medium of engineering and design. In a 1973 letter to Wachspress, the editor of the *Evening Standard* describes the article as concerning “your theories.”⁴⁵¹ Wachspress himself considered the Auditac not solely as a sexual machine, but as a demonstration of his theory that humans could listen to music synesthetically, with their skin.⁴⁵² As Wachspress told *Rolling Stone*: “I’d rather not emphasize the sexual aspect as much as the *Oui* story did . . . They just concentrated on one aspect. There are so many possibilities.”⁴⁵³ While the story of Rheingold coining teledildonics is one of science fiction and tech journalism inspiring debates about the future of media and sexuality, the story of Nelson coining teledildonics with reference to Wachspress is one of alternative engineering and design inspiring the computer counterculture. In other words, these two stories are one of *writing as theory*, and

⁴⁵⁰ Richard Neville. “Skin Sense.” *Evening Standard* 26 August 1972. Web. <http://www.auditac.com/TM/images/tm18.jpg>. Accessed 24 November 2015.

⁴⁵¹ *Evening Standard*, Letter to How Wachspress, 26 February 1973, accessed 24 November 2015, [auditac.com/TM/images/tm18.jpg](http://www.auditac.com/TM/images/tm18.jpg).

⁴⁵² *Rolling Stone* writes: “‘I’ve been getting into experiencing sound as a constantly evolving multidimensional experience. Part is ear-based, the rest is the evolving body-based experience, part of it connected to the ears.’ One of How’s favorite images is the shark: Certain sharks, he says, have tubes running the length of their bodies that relay sound information to the ears.” Perry, “Turn Up the Volume, My Foot’s Asleep!”

⁴⁵³ Perry, “Turn Up the Volume, My Foot’s Asleep!”

one of *design as theory*. While first-generation teledildonics imagined the debate over the future of technologized sexuality as an ideological and textual debate, the second generation debated the future of sexuality in virtual reality and videogames through design, with hacker projects serving as theoretical arguments in themselves.

To return to the example of videogame controllers as sex toys, sexual uses of *Rez*, SeXBox, and Joydick each produce different theories of sexuality and of technology. Though all three engage with the issue of gaming as phallic, and all three could be said to replicate the patriarchal dynamics of dominant game culture to some degree, these three sexual gaming hacks also approach these issues differently, and in so doing also resist and/or parody dominant sexual tropes in gaming culture in different ways. Uses of phallic imagery in sexual hacking projects—SeXBox’s use of a “rabbit” style vibrator including a dildo and Joydick’s suggestion that gamers use their own dick (or a dick of their choice)⁴⁵⁴ as an Atari controller—can serve as reminders of the equation of “gamer” with white cisgender men, particularly when those same gamers are the authors of these hacks. However, I would like to discuss these hacks and their significance in more detail, through the example of Joydick, to explain how they can be viewed both as humorous and as challenging theories of sexuality and technology. As Margot Weiss argues:

politics [can] not be reduced to a dichotomy of transgressive sex radicals
versus hegemonic straights . . . Rather than existing in a bracketed space of
play, SM performances are deeply tied to capitalist cultural formations; rather

⁴⁵⁴ I use the term “dick” rather than “penis” to highlight the difference between the organ as imagined in biology, and the functional object used for sexual penetration, which may be made from a variety of materials: flesh, wood, clay, glass, hard plastic, jelly rubber or silicone. As I discuss, a blue silicone dick was used in advertising materials for the Joydick.

than allowing for a kind of freedom from racial, gendered and sexual hierarchies, such spectacular performances work within the social norms that compel subjectivity, community, and political imagination.⁴⁵⁵

Instead of judging individual BDSM scenes or practitioners as subversive or transgressive of social norms, Weiss uses a method she terms *performative materialism* which “draws attention to relationships between the socioeconomic and the culturally performative, linking historical social transformations to local and subjective performances.”⁴⁵⁶ Performances like the demonstration of Joydick at the sex and technology conference Arse Elektronika, though not BDSM scenes, nevertheless arise from a community of tech-savvy sex enthusiasts in the Bay Area that overlaps with and responds to the area’s many alternative sexual and gender cultures. Rather than conceptualizing Joydick as a product within a discourse of new media, asking what its design aesthetics and ideology mean for the link between games, game controllers, gender, and sexuality, this discussion examines Joydick as performative materialist media theory, and as a “porn parody” of dominant sexual norms in gaming culture.

The Joydick is a project by Randy Sarafan and Noah Weinstein, which the designers demonstrated at the sex and technology conference Arse Elektronika. This wearable device, designed to be built at home by hacker-fans of the Atari console, could transform a gamer’s dick into a joystick-like controller. A Velcro strap could be wrapped around the base of a phallic object—represented by a blue dildo in Joydick’s demonstration videos—allowing the dick of the gamer’s choice to replace the joystick’s four-directional movement. A stroking

⁴⁵⁵ Weiss, *Techniques of Pleasure*, 165–67.

⁴⁵⁶ Weiss, *Techniques of Pleasure*, 197–200.

action of the gamer's hand, wearing a specialized ring, took the place of the controller's single red button. At the conference, two demonstrators stood silhouetted behind a white sheet, while a large monitor showed a vertical shooter on Atari Flashback 2, a 2005 emulation console. As the two labored in their makeshift tent, the facilitator announced with a mixture of glee and embarrassment, "so basically what's happening is, they're masturbating back there!" The audience erupted with laughter.⁴⁵⁷

Joydick's designers presented the project as a unique new innovation. Unquestionably the future of gaming, Joydick would finally bring together the allied realms of "videogameplay and male sexual stimulation," Weinstein and Sarafan argued in the conference catalog.⁴⁵⁸ Yet Joydick is also ambivalent about these startup claims of innovation and being the technology of the future. Despite attracting an article in tech blog *Kotaku* (McWhertor), Joydick was never designed as a commercial product.⁴⁵⁹ A "hacker project," Joydick exists chiefly as a set of instructions for modifying the Atari Flashback console, both on SF Media Labs website and in the Arse Elektronika catalog. So while some may compare Joydick to the "bodily interfaces" that gained commercial success in the 2000s

⁴⁵⁷ Nosedef, "The JoyDick – Play Atari with your . . . (SFW)." *YouTube*, 5 October 2009. Web. youtube.com/watch?v=puj8m3EJHZE.

⁴⁵⁸ Noah Weinstein and Randy Sarafan, "The Joydick," in *Of Intercourse and Intracourse: Sexuality, Biomodification, and the Techno-Social Sphere*, Johannes Grenzfurthner, Guenther Friesinger, and Daniel Fabry, eds. (Vienna: RE/SEARCH, 2011), 136–49, 137.

⁴⁵⁹ Michael McWhertor, "The Joydick Lets Players Play With Themselves to Play," *Kotaku*, 9 February 2009. Web. <http://kotaku.com/5150129/the-joydick-lets-players-play-with-themselves-to-play>. Accessed 11 December 2014.

including Wii and Kinect, Joydick is more similar to the “artist mods” Alexander Galloway terms part of a “countergaming” movement.⁴⁶⁰

Joydick, and projects like it, including Heather Kelley’s sex education game concept “Lapis” (2005), and the many projects including SeXBox (2005) detailed on Kyle Machulis’s blog *Metafetish* (formerly known as *Slashdong*), are part of an 00s countergaming movement devoted to creative uses of game hardware, and part of the increasing visibility of hardware hackers Chris Anderson termed a “new industrial revolution” of *makers*.⁴⁶¹ There have been sexual aspects to mods throughout gaming history, yet these instances of “pornographic hacking” have rarely been viewed as serious critical contributions to countergaming as an art form or as a political practice.⁴⁶² While Evan Lauteria conceptualizes pornographic hacking as a strategy of “queer modding as resistance,”⁴⁶³ some have compared sexual artist mods to crude vandalism, while others, including artists themselves, draw sharp distinctions between mods that address a male audience, and “erotic” or “educational” instances of pornographic hacking for female consumers. Elsewhere, I have argued that adult hacker projects, particularly those that engage with porn aesthetics, could be seen as *porn parodies* of the videogame and technology industries, in much the same way that the genre of porn parody

⁴⁶⁰ See David Parisi. “Game Interfaces as Bodily Techniques”; and Alexander R. Galloway. “Countergaming,” in *Gaming: Essays on Algorithmic Culture*, 107–26.

⁴⁶¹ Anderson, Chris, *Makers: The New Industrial Revolution* (New York: Crown Business, 2012). Kindle edition.

⁴⁶² Tanja Sihvonen, *Players Unleashed!: Modding the Sims and the Culture of Gaming* (Amsterdam: Amsterdam University Press, 2011), 178–84.

⁴⁶³ Evan W. Lauteria. “Ga(y)mer Theory: Queer Modding as Resistance,” *reconstruction* 12, no. 2 (2012), accessed 30 September 2016, reconstruction.eserver.org/Issues/122/Lauteria_Evan.shtml.

within the adult video industry parodies film and television franchises.⁴⁶⁴ However, here I discuss how these projects functioned within the second generation of teledildonics designers described in this section.

Joydick could be seen as a humorous critique of teledildonics, as well as the simultaneous futurism and nostalgia of gaming culture. Sexual human-computer interaction has long been associated with the world of the future in techno-fantasies, yet Joydick is also a modification of the Atari Flashback console—a product designed to trade on gamer nostalgia for a time when games’ graphics, mechanics, and potentially politics, could be perceived as “simpler.” Its creators’ assertion that the link between the penis, maleness, masculinity, and the ideal gamer is “quite clear” further associates the project with a kind of backward-looking conservatism. Yet the device also demonstrates some of the limits of these fantasies of human-computer sex and of a perfectly phallogentric gaming past.

Atari Flashback may hearken to a simpler time, but Joydick makes masturbation anything but simple. By asking prospective users to imagine synchronizing their masturbation with the patterns of a computer game, Joydick demonstrates how console manufacturers’ promises to provide intuitive and natural interfaces have often masked the bodily measurement and surveillance tactics of these products. Media scholars have debated the merits of traditional and bodily game interfaces. While some games theorists argue bodily interfaces are an effective alternative to the traditional game controller’s regime of gestural

⁴⁶⁴ Diana Pozo. “Counter gaming’s Porn Parodies, Hard Core and Soft,” in *Rated M for Mature: Sex and Sexuality in Video Games*, Matthew Wysocki and Evan W. Lauteria, eds. (New York: Bloomsbury, 2015), 133–146.

precision, control and restraint,⁴⁶⁵ others argue bodily interfaces teach users to make more of their bodies legible to their game consoles.⁴⁶⁶

The commercial success of aughts bodily interfaces allowed them to produce a “paradigm shift,” retraining gamers in a new set of “bodily techniques” for game control as well as “a fear over grammars of (undesirable) bodily action being added to one’s gestural language.”⁴⁶⁷ Joydick asks users to imagine the bodily interface taken to what they posit as its natural conclusion, in which even the user’s genitals are incorporated into the gestural language of a computer game. The use of a blue silicone dick to demonstrate Joydick in its marketing materials may be an unintentional effect of censorship practices in mainstream media excluding the representation of the erect penis. Nevertheless, this silicone dick demonstrates that Joydick is not a cisgender male-only product, and its humorous expression of anxieties about phallic sexuality and gaming culture apply even to gamers who do not identify as male, or who do not have a long enough flesh dick to work with. Because the project consists simply of a strap to be wrapped around the base of a phallic object, and a ring to be worn on the gamer’s finger, Joydick can be used with a variety of dicks, made from a variety of materials, by a variety of genders. The idea of using a strap-on as an Atari controller suggested by these advertising materials equates the gaming controller with a

⁴⁶⁵ Shinkle, Eugénie, “Video Games, Emotion, and the Six Senses,” *Media Culture & Society* 30 (2008): 907–15.

⁴⁶⁶ See Parisi, “Game Interfaces as Bodily Techniques”; Alison Gazzard, “Standing in the Way of Control: Relationships between Gestural Interfaces and Game Spaces,” in Matthew Wysocki ed. *Ctrl-Alt-Play: Essays on Control in Video Gaming* (Jefferson, NC: McFarland, 2013), 121–32; and Nadav Lipkin, “Controller Controls: Haptics, Ergon, Teloï and the Production of Affect in the Video Game Text,” in Matthew Wysocki ed. *Ctrl-Alt-Play: Essays on Control in Video Gaming* (Jefferson, NC: McFarland, 2013), 34–45.

⁴⁶⁷ Parisi, “Game Interfaces as Bodily Techniques,” 113, 120.

wider variety of dicks, implying that gaming's phallic power fantasies can be taken up by a variety of users, regardless of anatomy or gender identity.

In a video demonstrating Joydick, a user struggles to masturbate while gaming, and loses the game, prompting an intertitle to appear: "Now, even if you lose the game, you can be a winner in life."⁴⁶⁸ If the dick-measuring contest of hard core gaming were played with real dicks, would users be able to win the game, adopting the familiar and often solitary routine of masturbation to the measurement and surveillance of their game console, or would they have to be satisfied to be "winners at life" instead? When the skillful use of joysticks becomes the measure of masculinity and phallic power in a virtual space, isn't the joystick more like the technological dicks of silicone associated with a variety of genders than the naturalized flesh dicks of cisgender men? Joydick seems to join together video gaming and phallic sexuality, yet also points to their incompatibility.

Joydick challenges hard core gamers' claims to technical mastery, suggesting by its very existence that game proficiency is not the same as technical tinkering or "hacking" skill. The Atari Flashback console is intended as a product for retro gaming fans lacking the time, interest, or proficiency to restore a vintage Atari console and to collect Atari cartridges. Joydick incorporates this product so that hackers do not have to modify vintage collectibles for sexual purposes. However, as compared to Joydick, Atari Flashback seems to be a hopelessly non-technical product for a games fandom obsessed with technical mastery. A less-technical Atari fan may be able to win at vintage games, ported for this new user-friendly interface, but can he demonstrate Joydick's greater technical mastery over the

⁴⁶⁸ Noah Weinstein, "Joydick," *YouTube*, 6 February, 2009, accessed 30 September 2016, [youtube.com/watch?v=8JORtc2gAsY&eurl](https://www.youtube.com/watch?v=8JORtc2gAsY&eurl).

device's hardware? Weinstein and Sarafan provide simple instructions to build the Joydick, but are most hard core gamers really willing or able to hack game hardware in this way? If they are not interested in hard core pornographic hacking, how "hard core" are hard core gamers anyway?

Is Joydick teledildonic? If we take Howard Rheingold's definition of sex between two partners through a media interface, it seems not to be. Nevertheless, Joydick responds to the teledildonic use of *Rez* as an instance of fan discourse and theory about teledildonics. Just as popular theorists of sex and technology in the 1990s debated teledildonics as a media and sexual future, theorists debated teledildonic futures throughout the early aughts. However, while the primary medium of this debate was writing in the last century (1990s), hacking became the primary medium of teledildonic debate in the new millennial fandom. Hacker projects of the early aughts challenged dominant fandoms like gaming culture, while at the same time challenging the meaning of sexuality with and through computers. This hacking by fans who were also members of the technology industry in the Bay Area and beyond would lay the foundation for a corporate wave of teledildonics that began roughly in 2009, the same year Joydick was demonstrated.

This chapter has argued that teledildonics demonstrate the complexity of haptic media in the late 20th and early 21st centuries. 1990s teledildonics were a thought experiment that predicted virtual reality's immersive potential would lie in its ability to incorporate cutaneous peripherals. These peripherals would necessarily be sexual, as the popular "teledildonic theory of media history" posits all technological progress and pornographic production is driven by sexuality toward teledildonics as a total sexual immersion in a virtual reality. Cyberfeminists of this time period challenged teledildonics' thought experiment and idealist

historical assumptions by offering alternate ways to think about sexual immersion in virtual reality. Cutaneous interfaces did not yet exist, but cybersex technologies like BBSes, CD-ROM, 3-D Audio, videogames, printers, and photoshop were all equally haptic.

Teledildonics was counterhaptic to the idea that virtual reality should be chiefly affective and kinesthetic rather than cutaneous, and should not be used for sexual purposes. Feminist challenges and additions to teledildonics were counterhaptic to the thought experiment itself.

Teledildonics also represented a common theory of media communication: that the Internet was itself a perfect system to which black boxes could be attached. Peripherals will be the future of media innovation, teledildonics argues. Sex and technology fans of the aughts, many of them hackers or “makers,” did not challenge this theory. Instead, they questioned the label “sexual stimulation device” on the black box itself. Alternative sex toys inspired by the history of alternative computing culture in northern California posed a counterhaptic challenge to heteronormative sexuality, and its representation and propagation in the media. This challenge was particularly counterhaptic to the discourses surrounding hard core mainstream of videogames in the aughts. The sexual use of cutaneous interfaces for games challenged the disembodiment and solitariness associated with hard core gaming, as well as the gender and sexual boundaries of hard core gaming culture.

In the 2010s, teledildonics and alternative sex toy development continued to expand technological possibilities for sexual experience, yet in many ways they were incorporated into the mainstream of the adult novelty industry and the technology industry. The conclusion of this project shows how haptic media have become the new media mainstream in part by demonstrating the mainstream acceptance of teledildonics in recent years. Today, teledildonics have arguably become a regular feature of tech journalism, adult and tech

industry trade shows, and the crowdfunding industry, alongside a proliferation of virtual reality headsets and wearable technologies. Teledildonics have been a feature of the digital sublime arguing that virtual reality will be cutaneous as well as audiovisual, affective, and kinesthetic. What will teledildonics look like as they retreat “into the woodwork”? By centralizing haptic media like teledildonics, how may scholars understand the future of media in terms of touch, affect and embodiment?

Conclusion: Speculative Haptic Commodities in the 21st Century

From touchscreens, to videogames, to immersive “4-D” cinema, to Internet-connected adult products, the sense of touch has become central to the way we produce and consume new media. Such *haptic* uses of media have long occupied the realm of fantasy, part of the various futuristic promises of the “digital sublime” (Mosco 2004). Yet from the 1950s to the present, haptic technologies including vibration, moving seats, and motion gaming interfaces have come to occupy the mainstream of media production, consumption, and aesthetics. In order to understand the central place the sense of touch has in contemporary media culture, this project develops a theory of *haptic media*, which takes the sense of touch, not the audiovisual senses, as the central sensory regime of contemporary media production, consumption, and experience.

Media archaeologists have begun to chronicle and analyze the emergence of *haptic technology* (Parisi 2008, 2015). Film and media theorists have explained the alternative aesthetics of *haptic visuality* (Marks 2000, 2002), and developed tactile models of the relationship between the viewer’s body and the body of the film apparatus (Barker 2009), and theories of new media and immersion have argued for a subtle interpenetration of virtual and physical reality, or “mixed reality,” in contemporary media experience (Hansen 2006, Farman 2012). The theory of haptic media proposed in this project has combined these approaches, applying film theory and feminist and queer theory approaches to the study of a broad range of new media technologies organized under the rubric of the haptic.

Haptic media use touch in many modes, including kinesthetic (the embodied sense of movement), proprioceptive (body awareness in space), immersive, affective, measurement-

based, and cutaneous (at the surface of the skin) haptic styles. Chapter 1 elaborated the theory and methodology of haptic media and discussed why these methods may be useful to scholars. Because interacting with traditional media such as cinema through the body has often been considered distasteful (Williams 1991), some of these haptic styles are more accepted than others. This project has used the tension between more culturally acceptable and culturally marginalized haptic styles to elucidate power relationships in the haptic media landscape. Chapters 2 through 4 illustrated the tensions between dominant haptic media and controversial *counterhaptic* media forms in each of three media industries: videogames, film, and virtual reality.

Videogames and arcade machines have long used cutaneous technologies like haptic force feedback and electrotactile stimulation, as well as kinesthetic and proprioceptive effects, to touch the player. However, their appeal to player affect and their ability to create an immersive world have been more controversial than their ability to engage the controller-manipulating fingers of their fans. In conversation with Laura Marks's insights about feminist intercultural cinema and video art at the turn of the millennium, Chapter 2 discussed the challenge to accepted affective regimes in videogame culture presented by the *queer games movement*, a broad movement in videogame design, aesthetics, and theory that includes industry professionals, independent artists, activist journalists, and academic scholars.

The term "spine-tingler" has long been used in film and radio criticism and advertising to indicate affective engagement with certain "body genres" (Williams 1991, Clover 1992) including action, mystery, and the horror film. However, this dominant model of how cinema touches the spectator has contrasted with the rise of haptic movie theater seats

since the 1950s, including the vibrating seat attachments of Percepto (*The Tingler* [dir. William Castle, 1959]), the audio vibration system Sensurround (*Earthquake!* [dir. Mark Robson, 1974]), and 4-D cinema from Disney's *Captain EO* (dir. Francis Ford Coppola) attractions (1986-94, 2010-15) to the D-BOX moving theater seat system available in 33 countries across the world. Chapter 3 engaged this tension between the accepted forms of affective and proprioceptive haptics in the film industry, and these counterhaptic new technologies focusing on the cutaneous stimulation of viewers' bodies.

A persistent element of digital futurism has been the promise that virtual reality will immerse users in a total simulation of reality. The natural extension of this fantasy has been that cyberspace explorers will soon enhance their sex lives through virtual immersive sexuality. Since the late 1980s, the portmanteau "teledildonics"—which combines Marvin Minsky's "telepresence" (1980) with computer counterculture icon Ted Nelson's description of "psycho-acoustic dildonics" (1974)—has signified a range of products representing the future of cybersexuality: "cyberskin" suits, Bulletin Board Systems, CD-ROM, independent hacker projects, and Internet-connected sex toys. Chapter 4 frames teledildonics as the history of a fan culture surrounding technologized sexuality, as well as the history of the adult novelty industry's attempts to capitalize on this sex and technology fandom. While teledildonics itself poses a counterhaptic challenge to the more middlebrow haptic aspirations of virtual reality headsets from the 1990s to the present day, this chapter also discussed counterhaptic challenges to the assumptions about sexuality and the future that have animated the fantasy of teledildonics. Chapter 4's discussion of sexuality and virtual reality leads to the conclusion of this project, which argues that placing touch at the center of

fantasies of media futurism may allow for a productive re-framing of the concerns posed by new media under the framework of haptic media.

Dreams of total media immersion have a long history—from Aldous Huxley’s dystopian vision of future cinema’s “feelies,” which incorporated touch and smell to whisk viewers away into racially-charged erotic fantasies in the 1931 novel *Brave New World*, to André Bazin’s argument that cinema’s pioneers had a vision of a “total cinema” that would incorporate all the senses.⁴⁶⁹ However, struggles over the form and meaning of realism and immersion in media representation such as those described by Bazin continue. What constitutes total media immersion? A total simulation of reality? When will we know we have achieved it? Futurists predict the course of media technology in part by setting out ideological programs for scientists and engineers; idealist models of the history of technology such as those championed by Bazin and critiqued by Comolli and others are not simply retrospective histories, but forward-looking mythologies.

For example, to read Howard Rheingold’s 1991 *Virtual Reality*, the text in which “teledildonics” was coined, is to be offered a dizzying pitch about the present and future of everything from worldwide connection through cyberspace to virtual reality visors, data gloves, and teledildonic sexual experiences in which partners connect through virtual touch communicated over digital networks and executed through electronic pulses in cyberskin suits.⁴⁷⁰ Rheingold’s work not only journals the recent work of VR researchers, but mythologizes the field of VR as the inevitable technological future, the newest doyenne of

⁴⁶⁹ See Aldous Huxley. *Brave New World* [1932] (New York: HarperCollins, 2006); and André Bazin. “The Myth of Total Cinema.”

⁴⁷⁰ Howard Rheingold, *Virtual Reality*.

what Vincent Mosco called the “digital sublime,” a set of largely North American and sometimes European dreams for technology dating to the 19th century, including the elimination of social unrest, geographic distance, and even historical progression. Thus, “new media” promises to its fans and followers the “end of history,” and the realization of global utopia, in exchange for supporting the progression of (largely capitalist) technology development. However, the forms this future is meant to take are as old as the concept of new media itself.

Cyclical dreams of the digital future leave some readers easily disillusioned, particularly where the term “new media” has been concerned. As Wendy Hui Kyong Chun writes, by 2000, “new media seemed to be dead, and the utopian and dystopian discourses around the World Wide Web and Y2K were exposed for what they were: hype.”⁴⁷¹ The re-emergence of technological futurism since 2008, what Chun calls “future 2.0,” has been characterized by skepticism, and scholars became increasingly conscious of new media’s cyclical nature and inevitable obsolescence.⁴⁷² New media scholars in this second wave of future studies have also been increasingly aware of the oversights of 1990s futurism, including “digital divide” rhetorics that framed the web as a space of limitless possibility primarily for white straight, cisgender men.⁴⁷³ The rise of haptic technologies in the 2010s—from touchscreens that touch back, to wearable devices, increasingly ubiquitous smart phones and watches, cutaneous media interfaces from videogame controllers to specialty sex

⁴⁷¹ Wendy Hui Kyong Chun, *Programmed Visions: Software and Memory* (Cambridge, MA: MIT Press, 2011), xi.

⁴⁷² Chun. *Programmed Visions*, xi.

⁴⁷³ For a critique of the “digital divide,” see Anna Everett, *Digital Diaspora*.

toys, and the re-emergence of a new generation of virtual reality headsets—may represent yet another wave of media futurism, characterized, like the rise of electricity in the nineteenth and early twentieth century, by the centrality of the haptic.

To understand new media fantasies in terms of the haptic is not simply to study the importance of haptic force feedback technologies to the media industries, like the vibration that makes touchscreens touch back. Instead, as Chapter 1 begins to theorize, the framework of haptic media contextualizes haptic technologies within a range of ways that media touch us, from the “electrotactility” of early coin-operated machines, to the kinesthetic and proprioceptive qualities of even the earliest cinema, to the affective power of narrative, “effects,” and the body genres, to artist manipulation of a media form’s relationship with affect and the body in haptic visuality and the aesthetics of some independent videogames, to cutaneous cinema, videogame, and virtual reality interfaces from D-BOX to teledildonics. By taking the haptic as the central sensory regime of our time, scholars may begin to understand the power of contemporary mass media from videogames, to rides and experiences incorporating cinema, to the various forms virtual reality takes from social media, to online dating, to the use of limited field-of-vision headsets. This project has proposed the framework of haptic media as a theory and methodology for this new sensory media regime, that takes seriously the *feeling relations* of contemporary media, and the sexuality and embodiment of fantasies surrounding “new” media.

Central to this approach is a focus on the role of fantasy in technology development. Studies of new media often struggle with the division between fictional and realized technologies, yet scholars must recognize that all technologies are in some sense fictional or speculative. Wide-ranging promises about future technologies tell us much about the utopian

aspirations and mythologies attached to technology culture, but they are disappointing as predictors of any particular technology's commercial future.⁴⁷⁴ Ellen Strain argues that the 1990s wave of new media excitement and obsolescence was made possible by a “conflation between actual and virtual VR [Virtual Reality]” that led commentators to speculate about the utopian and dystopian possibilities of technology that did not yet, and might not ever, exist.⁴⁷⁵ However, as Caroline Bassett, Ed Steinmueller, and Georgina Voss demonstrate, technological innovation (“actual” VR) and science fiction (“virtual” VR) are co-constitutive.⁴⁷⁶ Despite late-2000s skepticism, many instances of haptic media exist in successive generations of speculation and development as both fact and fiction. For example, Oculus Rift raised \$2.4 million in crowdfunding in 2012 on the strength of an initial prototype. Backers and some enthusiasts could access the Rift as successive development kits starting in 2013, but it was not a consumer product until 2016. Crowdfunded products like this, bought as pre-orders before the development of the technology, may be called *speculative commodities*, because they earn money based on the strength of their futuristic fantasy, as well as their ability to convince potential consumers they can make the jump from virtual to actual. Consumers for speculative commodities include crowdfunding contributors, who sometimes buy the product in advance of its becoming available by contributing at a certain level—a contributor to Oculus's 2012 campaign would have had to donate \$300 to receive a developer kit—and venture capitalists, wealthy entrepreneurs who buy equity in

⁴⁷⁴ See Mosco, *The Digital Sublime*.

⁴⁷⁵ Ellen Strain. “Virtual VR,” 11.

⁴⁷⁶ Caroline Bassett, Ed Steinmueller, and Georgina Voss, “Better Made Up: The Mutual Influence of Science Fiction and Innovation,” Nesta Working Paper No. 13/07 (March 2013), accessed 10 June 2015, nesta.org.uk/wp13-07.

companies like Oculus Rift—bought by Facebook in 2014—thereby donating the seed funding these companies need to expand. Speculative commodities have even entered US politics: President Obama mentioned “Solar Roadways”—an Indiegogo campaign that raised \$2.2 million from nearly fifty thousand backers in June 2014—in his 2015 State of the Union Address, to argue for the importance of “a free and open Internet.”⁴⁷⁷ As the example of Solar Roadways suggests, not all speculative commodities are marketed through promises of touch and immersion. Yet, because of their often niche audience and futuristic appeal, many haptic media begin as speculative commodities, and many speculative commodities rely on the sublime promises of technological futurism to attract contributors. Thus, haptic media occupy a space between fact and fiction, existing as advertising discourse, consumable media interfaces, and speculative commodities. This space is suffused with fantasy, and crowdfunding, as a form of marketing, relies on how the promise of a new product makes the backer feel.

Just as radio and television hobbyists shaped the future of media technology in the early twentieth century, a new generation of tinkerers makes this speculative relationship with technologies more hands-on. The popularity of speculative commodities is partially due to the ascendance of these tinkerers and hobbyists, what Chris Anderson calls a “new industrial revolution” of “makers.”⁴⁷⁸ Makers, a physical commodity incarnation of

⁴⁷⁷ JD Alois, “Solar Roadways Gets Shout-Out from Obama During State of the Union,” *Crowdfund Insider* 22 January 2015, accessed 1 October 2016, crowdfundinsider.com/2015/01/61482-solar-roadways-gets-shout-out-from-obama-during-state-of-the-union/.

⁴⁷⁸ Chris Anderson. *Makers: The New Industrial Revolution*.

“hackers” minus the law-breaking reputation hackers held in the late 1980s,⁴⁷⁹ use their own equipment, or publicly available equipment in coworking spaces (sometimes called “hacker spaces” or “maker spaces”) to design, build, and distribute their product designs. Though the term “maker” often applies to an engineer or consumer electronics designer, it may also be used to refer to fans of woodworking, metal turning, sewing, and cosplay (which may combine many maker skills). Makers may also share their plans in publications like *Make*: magazine, which hosts “Maker Faires” across the world where hobbyist and semi-professional “makers” coexist with startup hopefuls hawking their products. They may publish plans for their projects for others to tinker with on websites like Pinterest, or on maker-dedicated sites like Instructables.com. The sex and technology conference Arse Elektronika, discussed in Chapter 4, included in 2012 through 2014 one day of presentations at the Center for Sex and Culture in the “South of Market” or SoMa neighborhood of San Francisco, and one “hacker day” at Noisebridge, a hacker space located in the Mission District. Noisebridge is filled with computer workstations, spare electronic parts, and construction equipment. The products displayed at the conference, like Joydick (2009), a speculative design allowing a gamer to convert their dick (or penis simulacrum) of choice into an Atari joystick demonstrated at Arse Elektronika by creators Noah Weinstein and Randy Sarafan of SF Media Labs, have often been hacker projects, not consumer products.⁴⁸⁰ Existing primarily as plans to be made by the reader, hacker projects such as Joydick represent a less commercial type of speculative commodity that asks the consumer to

⁴⁷⁹ On the connotations of hacking in the late 1980s, see Andrew Ross, “Hacking Away at the Counterculture,” In *Technoculture*, Constance Penley and Andrew Ross, eds. (Minneapolis: University of Minnesota Press, 1991), 107–34.

⁴⁸⁰ Noah Weinstein and Randy Sarafan, “The Joydick.”

contribute time and labor rather than cash to the designer's vision. Yet recently the line between hacker instructions and consumer products has also become blurred: crowdfunded sex toy developer kits like Comingle's Mod and Orgasmatronics's Master Beta Kit (both 2015) debuted at Arse 2014, and became available for purchase through their campaigns. Due to the contemporary conditions of production in technology and consumer electronics, and lingering angst about the dotcom bust, many haptic media are speculative commodities, existing primarily as designs and prototypes, concepts to be bought and sold either through cash or labor. This group of sex technology hobbyists were in some ways a counterhaptic challenge to the dominant culture of "makers," who are often represented at family-friendly maker events as heterosexual couples with gender-normative interests. At Maker Faire Bay Area in 2014, a long line of mostly young boys waited with their fathers to strike a button with a hammer, making a large welded metal robot sculpture shoot fire. Meanwhile, in tents nearby, mostly women sold handmade jewelry and books. One mother enlisted her daughter to help with a sewing demonstration. This Maker Faire included stereotypically masculine pursuits like robotics and welding in the category of making, alongside stereotypically feminine jewelry-making and sewing; its child-friendly setting may have helped children of all genders become interested in DIY culture and technology design.

This "hands-on" approach to technology and homemaking is an example of haptic media; however, its appeal to heteronormative families also delimits the field of normative making to exclude nearly all of the examples used in this project. In contrast, Arse Elektronika's hacker day in 2012, 2013, and 2014 demonstrates the appeal of maker culture to an alternate often queer-identified, adult-industry, and sexual subculture-oriented group of makers. 2014's Arse debut of the Mod and Master Beta Kits marked this subcultural maker

culture's foray into what had become the embattled mainstream teledildonics industry. Just as the example of teledildonics served to illuminate the politics of haptic media in the 1990s and aughts, the struggles faced by the contemporary teledildonics and alternative adult novelty industries lead to some conclusions and some questions for future research on haptic media. Sexual fantasy has historically fueled a desire for new technologies, and underpinned the power relations of these haptic media. This conclusion continues Chapter 4's discussion of teledildonics to demonstrate the centrality of sexuality to contemporary haptic media feeling relations.

The Teledildonics Industry: Sexuality, Gender, and Haptic Media

By 2012, the field of teledildonics was no longer relegated to the speculative realm of futurist debates by journalists, fans, and other philosophers. Nor was it solely the realm of hobbyists and hacker projects described above. As I described in the last chapter, commercial adult novelty companies took a central place at the 2012 AVN adult expo, with two competing devices from RealTouch (partnered with aebn) and VStroker (partnered with Fleshlight) running popular demonstrations just across the aisle from each other in the center of the fan show floor. Because AVN functions both as a space of industry production culture and a space for fans to interact with products and stars, this central position in the fan show guaranteed journalists, industry professionals, and fans of the adult industry interested enough to buy tickets would all have seen this demonstration. Following the show, press accounts of products like RealTouch would circulate more widely, reaching fans of sex and technology across the country. RealTouch had just announced that its automatic stroking device would soon be partnered with a device it called the Joystick, adding a one-way

interactive element to certain live webcam shows: as models stroked the Joystick at the RealTouch booth, attendees were invited to put their fingers into the RealTouch to feel how perfectly the machine's interior followed the Joystick's manipulations.

Nina Huntemann has argued that “booth babes” functioned in the late 00s to designate videogames and gaming fan/trade shows as a male-oriented space, and that the phenomenon of the booth babe represents a larger trend of hiring women in public relations and marketing rather than technical positions at game companies.⁴⁸¹ Indeed, RealTouch “booth babes”—if they could be called that—were both models and product representatives, appearing alongside male PR workers to explain the technical specifications of the device and its Joystick. While models at videogame conventions are not always understood as consumers of videogame software and hardware, the models at the RealTouch booth were consumers and users of the Joystick, insofar as they appeared on the RealTouch Interactive Beta site.

RealTouch commented upon sexual uses of videogames through its product marketing. Whereas Joydick had imagined a dick being used as a joystick to control a videogame, the RealTouch Joystick was a dildo-like controller that manipulated an automatic masturbation sleeve at a distance. As an instance of sexual gaming, this mechanic was innovative: an inserting partner's genitals would serve as the “target,” while models would hold the controller. Moreover, while stories surrounding the *Rez* Trance Vibrator imagined a heteronormative domestic scenario of noncommercial sex, the RealTouch Joystick was designed for use with commercial sex, placing it firmly on “the outer limits” of the “charmed

⁴⁸¹ Nina Huntemann, “Pink Slips for Booth Babes?: No Way! Re-Train and Re-Skill,” *Flow* 5, no. 15 (February 2007), accessed 1 October 2016, flowjournal.org/2007/02/pink-slips-for-booth-babes-no-way-re-train-and-re-skill/.

circle” of “good, normal, natural, blessed sexuality.”⁴⁸² While customers of RealTouch Interactive would remain in control of a financial transaction between themselves and the models they patronized, they would not be in control of their sexual experiences with the device, a fact that scared some reviewers. (Promotional videos re-cast this dynamic in more empowering terms: “RealTouch is weighted for hands-free enjoyment, keeping you in complete control.”)⁴⁸³ On the surface, therefore, RealTouch Interactive challenged received wisdom about sexuality, gender, and power in media. Reviewers approached RealTouch with a mixture of attraction and hesitation, if not repulsion. PCMag.com’s Sascha Segan described every detail of the “whirring, rotating, feathery object made of a moist latex-like material” that massaged the inside of the RealTouch’s box-like output device, writing, “I’m not going to judge,” but using tone to suggest otherwise.⁴⁸⁴ A review by Fleshbot.com took a more sympathetic approach, declaring that the sensation provided by RealTouch was “like fucking the Matrix:” far from being a simulation of partner sex, RealTouch was an experience all its own. Nevertheless, other Fleshbot reviewers found the whirring interior belts a little too *vagina dentata* for their tastes. One was hesitant to put his penis in the RealTouch output device, for fear that he “might not come back.”⁴⁸⁵

⁴⁸² Gayle Rubin. “Thinking Sex,” 152.

⁴⁸³ Revodne, “RealTouch Promo from AEBN,” *YouTube* 18 January 2009, accessed 1 October 2016, [youtube.com/watch?v=hhEJDo_nnms](https://www.youtube.com/watch?v=hhEJDo_nnms).

⁴⁸⁴ Sascha Segan, “A Thousand Dildos for the Military Wives,” *PCMag* 11 Jan 2012, accessed 1 October 2016, [pcmag.com/article2/0,2817,2398754,00.asp](https://www.pcmag.com/article2/0,2817,2398754,00.asp).

⁴⁸⁵ Fleshbot, “RealTouch: Your Awesome Robot Rubout,” 25 Nov 2009, accessed 1 October 2016, [straight.fleshbot.com/5412288/realtouch-your-awesome-robot-rubout](https://www.straight.fleshbot.com/5412288/realtouch-your-awesome-robot-rubout).

While RealTouch was a device designed for a cisnormative ideal of male sexual pleasure, the negative reactions to the product by these primarily male consumers and adult industry professionals suggested the potentially disruptive aspects of RealTouch for conventional ideas about male sexuality. Essentially, RealTouch asked consumers to give up control of their sexual anatomy, trusting a machine and/or a performer with the safety of their most intimate parts. Aebn also asked consumers to give over control of their video choices—because RealTouch only worked with videos offered through aebn, users of RealTouch were tethered to aebn’s video-on-demand services. Though Aebn promised that a “couples” version of RealTouch, with both “input” and “output” devices, would be offered to the public soon, even this version of the RealTouch would need to be used with aebn’s website. Moreover, live performers, or “camgirls,” working for aebn had to learn to use the RealTouch Joystick, a specialized technical skill useless outside the framework of employment with aebn’s video-on-demand service.⁴⁸⁶

As discussed in Chapter 1, spectatorship has been a central question for feminist film theory. Laura Mulvey’s foundational article, “Visual Pleasure and Narrative Cinema,” argued that the gaze of classical Hollywood cinema adopted an active “male” perspective, while women’s status as bearers of the gaze was more passive.⁴⁸⁷ This concept of the “male gaze,” though rooted in psychoanalytic theory, has appeared in popular feminist analysis as discussions of the objectification of women’s bodies in visual media. While anti-pornography feminists have associated visual representation drawing on the politics of the gaze with women’s victimization, exploiting the gaze has proved profitable for social media

⁴⁸⁶ Endo Jezek (RealTouch Product Manager), Personal Interview 20 January 2012.

⁴⁸⁷ Mulvey, Laura, “Visual Pleasure and Narrative Cinema.”

entrepreneurs of many genders. For example, early female webcam performers, or “camgirls,” profited from this voyeuristic model of spectatorship proposed by classical feminist film theory. The first camgirls, like Jennifer Ringley of JenniCam, and Anna Voog, of Anacam, were not sexually explicit, though some fans may have flocked to them for titillation, or other erotic reasons. Launched in 1996 and 1997 respectively, JenniCam and Anacam simply offered periodic photographs of the women’s apartments, showing Jenni and Ana doing mundane tasks such as answering emails. Occasionally, viewers would get a glimpse of the camgirls undressing or having sex, part of the “uncensored” nature of these everyday “lifecams,” and the self-revelatory aesthetic of early Internet stars.

Audacia Ray argues that Jenni and Ana’s embodiment helped them to make careers out of submitting their lives to online surveillance. Noting that even in text-only chatrooms of the early 1990s, female users were often asked for details of their physical appearance, Ray writes, “Women’s presence on bulletin boards and chat rooms is both highly desired and reviled because female presence changes the meaning of the space for the men who occupy it. To be more precise, it’s really men’s *knowledge* of women’s presence that changes the meaning of online space for them, not women’s presence itself.”⁴⁸⁸ The revelation of women’s online presence engages what Ray calls the “sexual/sexist element of looking at women” that, Ray argues, animates the phenomenon of girls and women getting more online attention than boys and men.⁴⁸⁹ The sexual draw of lifecams has developed since the 1990s into the increasing popularity of webcam performance among adult performers and adult

⁴⁸⁸ Audacia Ray, *Naked on the Internet: Hookups, Downloads and Cashing In on Internet Sexploration* (Emeryville, CA: Seal Press, 2007), 29.

⁴⁸⁹ Ray, *Naked on the Internet*, 38–39.

industry entrepreneurs. Webcam sites and performers have transformed the role of the “camgirl” from that of a particularly intimate blogger, to that of an explicit sex worker. The structure of Aebn’s video-on-demand site, with webcam performers employed through an adult company’s platform, represents a further industrialization of webcam labor.

RealTouch was originally conceived as a two-way accessory to live webcam performances.⁴⁹⁰ When aebn bought the right to produce RealTouch from an independent Stanford engineer, the “output device,” a penetrable masturbator, had already been designed.⁴⁹¹ However, it was up to aebn to engineer and design the “input device,” later termed the Joystick. Endo Jezek, RealTouch’s project manager, described the Joystick design process as very responsive to the needs of webcam performers working for aebn. The device is essentially a controller, Jezek said, it “needed to be functional, the right size and very simple.”⁴⁹² RealTouch employees polled their wives and girlfriends, as well as performers working for aebn, as to the proper size and shape for the Joystick, as well as what would make the device easy to use.⁴⁹³ Jezek said that to be effective, the Joystick would have to be as simple as plugging in a mouse.⁴⁹⁴ This emphasis by aebn on ease of use suggests that potential webcam performers were part of their audience for the device; RealTouch’s Joystick would attract more performers to aebn’s platform if the design was user-friendly. In this way, RealTouch’s Joystick framed webcam performers as consumers, putting a certain

⁴⁹⁰ Endo (RealTouch Product Manager), Personal Interview 20 January 2012.

⁴⁹¹ Endo (RealTouch Product Manager), Personal Interview 20 January 2012.

⁴⁹² Endo (RealTouch Product Manager), Personal Interview 20 January 2012.

⁴⁹³ Endo (RealTouch Product Manager), Personal Interview 20 January 2012.

⁴⁹⁴ Endo (RealTouch Product Manager), Personal Interview 20 January 2012.

degree of control over viewer experience in their hands. The person *touching* the Joystick and the person *being touched* by the RealTouch output device were both audiences for this teledildonic instance of haptic media.

Aebn's focus on user-friendly design may have downplayed the level of technical expertise models would have to acquire, but the terminology and visual language used in RealTouch advertising to potential viewers emphasized these webcam performers' skill, depicting them as gamers. Terming the input device a "joystick" explicitly linked the device not to dildos, but to gaming controllers with a similar shape. Webcam performers on the RealTouch website were often pictured looking at their computer screens, the Joystick placed next to their PC like a mouse or gaming controller. The testing period for RealTouch interactive, was called a "Beta," a term commonly used for early test releases of PC games. Two options were provided for joining the RealTouch Interactive beta: becoming a model, and becoming a consumer. Both sides of the RealTouch interaction were therefore part of the gaming experience. Putting the controller in the hands of performers may seem from the perspective of the voyeuristic model of classical feminist film theory to be a radical move, but this casting of porn models as gamers is nothing new for geek and gamer culture, which celebrates models posing with gaming controllers or playing videogames at tradeshow, in games, and on specialty porn websites. While the Joystick's phallic shape may have been a turn-on to many viewers on RealTouch interactive, some were sure to be equally turned on by this fetishization of the phallic game controller.

RealTouch's proprietary and haptic nature was more disruptive to traditional models of adult entertainment and media spectatorship. Because RealTouch was a proprietary technology, it participated in an increasing push by the media industries to regain control

over media content in the age of the Internet. Coaxing consumers to pay for media content was becoming increasingly difficult in 2009 when RealTouch was launched, and harsh legal measures such as suing individuals and the 2011 Stop Online Piracy Act (SOPA) confronted passionate consumer disapproval. RealTouch attempted to draw consumers to paid pornographic video through liveness and added haptic value, tethering them to the RealTouch platform, if the device proved indeed more satisfying for a consumer than masturbation or sex with a partner.

RealTouch also disrupted accepted models of spectatorship in in Film and Media Studies. Many online media experiences blur the line between passive viewing and interactive gaming. RealTouch's use of external devices, haptic technology, and explicit appeals to gamer culture makes the link between gaming and spectatorship particularly explicit. However, spectators using RealTouch were not, as in the term "viewers," the primary active users in this media interaction. Rather, the controlling players in RealTouch's "game" were sex workers. RealTouch thus drew upon fantasies of gaming as a site for sex work. Moreover, the *haptic voyeurism* of the RealTouch output device placed spectators in the uncomfortable position of losing control of their most intimate parts.

Despite RealTouch's haptic challenge to models of voyeurism and objectification, the teledildonics industry has often portrayed itself in very heteronormative and naturalized terms. For example, at the 2012 Consumer Electronics Show (CES) in Las Vegas, product manager Scott Rinaldo mentioned to a journalist that he would be interested in contacting the US Military about the potential utility of RealTouch and the Joystick in deployed servicemen's long-distance relationships.⁴⁹⁵ Though this statement was uncharacteristic of

⁴⁹⁵ Sascha Segan, "A Thousand Dildos for the Military Wives."

the Joystick’s actual commercial uses, and the device would never become available for noncommercial couples, the suggestion that RealTouch would offer “a thousand dildos [to] the military wives” became the headline of an eventual *PC Mag* article, and influenced RealTouch’s reputation for years afterwards.⁴⁹⁶ Consumers continued to ask about a future “couples” version of RealTouch leading up to AVN 2013, when I interviewed my research collaborator Endo, a product manager for aebn, after the release of the Joystick.⁴⁹⁷ As discussed in Chapter 4, AVN 2013 featured RealTouch’s booth at the entrance of the massive fan area, where models and actors appeared to meet with fans. Several RealTouch models, including Madyson, a model who served as the product’s representative, demonstrated the device. Large banners advertising RealTouch appeared all around the stadium-like fan space, where the AVN awards would later be held. A video ad for RealTouch played alongside other videos on a loop above the show. By this time, RealTouch Interactive Beta had a small but dedicated fan base of about 2000 “regular users,” and most who scheduled at least one date with a model would go on to schedule another.⁴⁹⁸ Despite these regular users’ financial commitment to the device, Endo spoke repeatedly about his desire to see a “couples” site for RealTouch in the future, though he did not think it would be financially profitable.⁴⁹⁹ Endo envisioned this site as a membership service for a “community,” maybe consisting of “swingers,” with different payment plans for monthly, yearly, and perhaps even “lifetime”

⁴⁹⁶ Sascha Segan, “A Thousand Dildos for the Military Wives.”

⁴⁹⁷ Endo (RealTouch Product Manager), Personal Interview 19 January 2013.

⁴⁹⁸ Endo (RealTouch Product Manager), Personal Interview 19 January 2013.

⁴⁹⁹ Endo (RealTouch Product Manager), Personal Interview 19 January 2013.

membership.⁵⁰⁰ Why wouldn't such a site be as profitable as the cam site? Endo proposed an equation:

First, you have to take the number of men who are interested in using a sex toy. That's a small number. Then narrow it down to all the men who want to use a sex toy who have a partner. Then narrow that down to those whose partner is interested. That is a smaller number. It's a small market for couples' toys.⁵⁰¹

Despite sounding pessimistic about the profit margins for couples' teledildonics, Endo argued that introducing a couples' site would be good publicity for RealTouch, possibly enhancing its mixed reputation.⁵⁰² He characterized the 2012 *PC Mag* article discussed above as good publicity, and hoped that promising a future couples site again in 2013 would bring more attention and interest to RealTouch. Instead of introducing a couples' device, RealTouch discontinued manufacturing devices in November 2013, and closed its Interactive Beta forums in 2015. However, the aspiration to "couples" publicity lives on in the marketing strategy of Kiiroo, the Dutch company partnered with Fleshlight that introduced its Pearl and Onyx devices in 2013. As discussed in Chapter 4, Kiiroo dominated the teledildonics industry by 2015, as the primary consumer device claiming the term in its advertising materials. In 2015, Kiiroo partnered with VirtualRealPorn.com to offer a haptic video experience like that of RealTouch.⁵⁰³ However, in early advertising, Kiiroo was marketed as

⁵⁰⁰ Endo (RealTouch Product Manager). Personal Interview 19 January 2013.

⁵⁰¹ Endo (RealTouch Product Manager), Personal Interview 19 January 2013.

⁵⁰² Endo (RealTouch Product Manager), Personal Interview 19 January 2013.

⁵⁰³ Virtualrealporn, "Kiiroo's Onyx is now compatible with the stereoscopic VR videos of VirtualRealPorn. Feel everything you see," *VirtualRealPorn* 17 September 2015, accessed 1

a “couples” device, for noncommercial users in “long-distance relationships.” As a haptic interface for video, teledildonics traces many of the promises and perils described in Chapter 3, threatening the integrity of voyeuristic relationships with visual media and the gender and sexuality of imagined male consumers. How does marketing teledildonics as a product for couples shift this relationship between gender, sexuality, and haptic media consumption?

“Couples” and Adult Novelty

Because sex toys can be used in a variety of ways, adult novelty tends to access its audience imaginatively, creating narratives of a changing imagined ideal consumer across time that are beneficial to the industry and its profit. At adult industry trade shows and conferences between 2012 and 2015, including AVN and XBIZ 360, seminars, speeches, booklets, and booths constructed three imagined ideal audiences for adult novelty. First, though historians including Rachel Maines and Jane Juffer have discussed the place of the vibrator as a home appliance since the turn of the 20th century, and the feminist sex shop Eve’s Garden was founded in New York City in 1974, these trade shows framed the 1970s through the 1990s as a time when the imagined ideal consumer of large adult novelty manufacturers like Doc Johnson (1976) was a gay or straight cisgender man. Educational panels featuring women in adult novelty were particularly useful to the maintenance of this narrative, as they both attested to this male-centered past and showed it was clearly over.

The feminist adult novelty movement has coexisted with the rise of the couples’ market since the late 1990s, when feminist and women-owned sex toy retail expanded from

October 2016, virtualrealporn.com/2015/09/17/kiiroos-onyx-now-compatible-stereoscopic-vr-videos-virtualrealporn-feel-everything-see/.

brick-and-mortar stores to include catalogs and online retail, expanding access to adult novelty for suburban and rural women, and those confined to the domestic sphere. Growing in tandem with the debates over teledildonics and virtual reality discussed in Chapter 4, a group of manufacturers including Vixen (1992), Natural Contours (1996), Tantus (1997), Lelo (2003), jimmyjane (2004), SpareParts HardWear (2005), njoy (2005), OhMiBod (2006), and Je Joue (2008) used medically certified materials, abstract modernist industrial design, and high-end packaging to appeal to audiences less familiar with sex shops and the adult industry. The imagined feminist audience for these products included queer and straight women, who may have some familiarity with adult products, and some interest in sex education and adult video. However, the newer couples market for adult novelty, which includes WeVibe (2008), and the teledildonic devices RealTouch (2009) and Kiiroo (2014), is imagined in overtly heteronormative terms as straight and monogamous, and comprised of consumers less familiar with adult products, and less willing to try new adult products. Both feminist and couples categories imagine their ideal consumer needing to be introduced to the concept of adult novelty in a classed setting coded as safe by being more similar to a boutique or lingerie store than a traditional “mom and pop” adult retailer. At the same time, adult novelty continues to titillate because of its connection with the pornographic, the realm of sex work, and the queer.

Lisa Palac noted in 1992 that the technologized future of sexuality was still less threatening to heteronormative sexual norms than the simple act of anal sex. In much the same way, couples’ sex toys trade on the promise of forbidden thrills that stay firmly within the structure of the heteronormative couple, and even within the hyper-privileged culture of finance. Lelo’s 2015 ad campaign for Pino—“the Worlds First Sex Toy Exclusively for

Bankers”—demonstrates how companies associated with feminist adult novelty may betray their feminist fans when marketing to couples. The product’s website features lush product photography and copy emphasizing both the couples’ and high-end aspects of the toy. Pino, a vibrating cock ring, is “The Ultimate Stimulus Package: A vibrating couples’ ring, designed to satisfy even the most demanding executives.”⁵⁰⁴ Lelo’s references to “executives” and “bankers” may be due in part to the *50 Shades of Gray* series, which inspired its own official line of adult novelty products, and caused a spike in adult novelty sales.⁵⁰⁵ However, it also indicates how couples are imagined to be upper-class, heterosexual, elite, and conservative consumers, with discerning tastes not met by the majority of adult novelty retail.

The couples’ market also follows Rachel Maines’ claims about the vibrator as performing the “job nobody wanted,” giving women orgasms in a phallocentric sexual culture.⁵⁰⁶ Devices to give women orgasms during penetrative sex may also encourage certain limited sexual possibilities in their design. Eva (2014), a wearable couples’ vibrator designed to provide clitoral stimulation during intercourse, only remains in place in two sexual positions (“missionary,” and “cowgirl”), as reviewer Gigi Engle of *Elite Daily*

⁵⁰⁴ Lelo. “PINO: Luxury Cock Ring with Cufflinks and Clip.” <https://www.lelo.com/pino>. Accessed 13 December 2015.

⁵⁰⁵ See for example Lovehoney. “Fifty Shades of Grey.” Web. <http://www.lovehoney.com/brands/fifty-shades-of-grey/>. Accessed 13 December 2015; Arjun Kharpal. “Kinky! The Saucy Business Sparked by ‘50 Shades.’” *CNBC* 13 February 2015. Web. <http://www.cnbc.com/2015/02/13/oy-sales-set-for-50-shades-of-grey-boost.html>. Accessed 13 December 2015.

⁵⁰⁶ Maines, *The History of Orgasm*, 1.

concluded. “Don’t try doggy style,” she writes.⁵⁰⁷ Devices like Eva and the insertable couples’ vibrator WeVibe trade on their ability to be “wearable” without a harness, and advertise their devices as alternately feminist, healthy, and scientific to make them appear nonthreatening and nonchallenging to couples’ existing sexual patterns. Eva’s pitch video on Indiegogo distinguishes the vibrator from other sex toys, arguing, “most vibrators are distracting and create a barrier during sex between partners.” One user in the video praises Eva’s undetectability to her male partner: “this was just not intrusive at all. As far as he could tell, there was nothing. There was nothing in his way.”⁵⁰⁸ Nevertheless, the challenge couples’ devices face—to introduce toys into heteronormative sex without denaturalizing it—is tough to meet. Engle of *Elite Daily* concludes, “Once I got mine, my gentleman lover got over sharing me with Eva and threw her out of the picture for the duration. I guess he was over my cyborg vagina.”⁵⁰⁹

This imaginary of the couples’ market exists in tension with the market in teledildonics for webcam models and their fans. Such dedicated fans may identify as part of a couple, spending thousands of dollars developing a relationship with a single model.⁵¹⁰ However, this model of the commercial couple in a long distance relationship did not attract as much interest for RealTouch as the suggestion that couples imagined as noncommercial,

⁵⁰⁷ Gigi Engle, “I Tried the First Hands-Free, Feminist Sex Toy And It Went Exactly How You’d Expect,” *Elite Daily* 24 February 2015, accessed 13 December 2015, elitedaily.com/women/eva-sex-toy-dame-products/939793/.

⁵⁰⁸ Alexandra Fine, “Eva: the first truly wearable couples’ vibrator,” *Indiegogo* 5 December 2014, accessed 1 October 2016, indiegogo.com/projects/eva-the-first-truly-wearable-couples-vibrator-technology#/.

⁵⁰⁹ Gigi Engle, “I Tried the First Hands-Free, Feminist Sex Toy.”

⁵¹⁰ Endo (RealTouch Product Manager), Personal Interview 19 January 2013.

such as married servicemen and their spouses, might use RealTouch and its Joystick to engage with each other through a platform supported by RealTouch. This may be why commercial developers in the mainstream adult industry like Kiiroo continue to market teledildonics simultaneously as accessories to streaming video or webcam shows, and as couples' products, for heterosexual or gay male couples in long-distance relationships. Teledildonics' struggle to appeal to couples markets does not account for the many false starts in the industry, however. Instead, a persistent trend of patent litigation in teledildonics led RealTouch to cease production.

The Demise of RealTouch and the Future of Haptic Media

Teledildonics has faced a range of patent issues, causing some US teledildonics hopefuls like RealTouch to cease production of their devices, and leading others, like Fleshlight, to partner with overseas teledildonics companies, like the Dutch Kiiroo.⁵¹¹ Simultaneously, a movement of open-source sex toys has focused more on the multiplication of sexual possibilities through adult novelty production, designing custom sex toys and remote controls, and marketing developer kits to adult novelty fans, such as Comingle's Mod multivibrating open source dildo (Indiegogo, 2015) and Orgasmatronics's Master Beta Kit (Indiegogo, 2015). Though these open source sex toys are not properly teledildonics, in that they are not always controlled through an online interface, many have faced the same patent issues as devices claiming the label "teledildonics," including RealTouch and Kiiroo.⁵¹² As

⁵¹¹ KIIROO, "Teledildonics for Long Distance Relationships."

⁵¹² Comingle's Mod has recently been sued for patent infringement, in the first patent test case for teledildonics, suggesting that "open source" products are not safe. Kyle Machulis. "Patent Troll vs. Everyone."

Dr X. Treme of Orgasmatronics explained in a 2014 presentation, many current hobbyists and entrepreneurs have come to believe that teledildonics is dead.⁵¹³

This hobbyist rejection of teledildonics comes even as some of the largest adult novelty companies continue producing internet-connected products, using their financial resources to pay the exorbitant patent fees that have shut out hobbyists and smaller companies. At the XBIZ adult industry trade show in January 2015, Fleshlight's partnership with Kiiroo to produce the Onyx and Pearl, an automatic masturbation sleeve and vibrating dildo that could be controlled through Kiiroo's proprietary online video chat interface, took center stage, alongside We-Vibe, which had recently developed an app to remotely control their line of vibrators marketed to heterosexual couples, and LELO, a company long identified with women-centric or "feminist" adult novelty, whose controversial new PINO line advertised sex toys for "testosterone-drenched bankers."⁵¹⁴ Both Fleshlight and We-Vibe discussed paying patent fees to license their teledildonic products for the US market, while Dr X. Treme, billed as Lafe Spietz, discussed Orgasmatronics' non-teledildonic yet queer-friendly Ambrosia Vibe, a strap-on dildo that vibrates in response to a partner's touch.

⁵¹³ Dr. X. Treme, "Body Hacking with the Ambrosia Vibe," Arse Elektronika Conference, Noisebridge, San Francisco, CA, 5 October 2014.

⁵¹⁴ Michael Topolovac, Brian Dunham (*Ohmibod*), Robin Elenga (*Revel Body*), Kristen Tribby (*Fun Factory*), Lafe Spietz (*Orgasmatronics*), Alicia Relles (*JeJoue*), Tristan Weedmark (*We-Vibe*), and Michael Goldsmith (*Dr. Clockwork*), "Sex Toy Tech: On the Cutting Edge," Panel, XBIZ 360, Andaz Hotel, Los Angeles, CA, 15 January 2015; Scott Watkins (*Doc Johnson*), Donna Faro (*LELO*), Tristan Weedmark (*We-Vibe*), Rebecca Cook (*Sinclair Institute*), Alicia Sinclair (*JimmyJane*), Dennis Paradise (*Paradise Marketing*), Dee Dennis (*Catalyst Con*), "The Future of Pleasure Products." Panel, XBIZ 360. Andaz Hotel, Los Angeles, CA. 15 January 2015. See also Katie Oldenberg, "LELO Launches a Sex Toy Specifically for Sex-Obsessed 'Testosterone-Drenched' Bankers," *The Frisky* 20 November 2014, accessed 9 July 2015, thefrisky.com/2014-11-20/lelo-launches-a-sex-toy-specifically-for-sex-obsessed-testosterone-drenched-bankers/.

Panelists at the conference also discussed the “future of pleasure products” in terms of a shift to follow the model of dominant media and consumer electronics industries, from webcam companies following the platform business model of the tech industry, to LELO’s representative imagining a place for their products not in women-centric sex toy stores creating what Lynn Comella has termed “sex-positive synergy” with feminist and queer porn production, but in mainstream boutiques and department stores.⁵¹⁵ Comella has described the 1990s and early 2000s as an era of adult novelty in which sex-positive women centric retailers furthered sex education and feminist and queer porn production.⁵¹⁶ However, at XBIZ 2015, webcam and couples’ markets centered on male consumers, and sometimes their heterosexual female partners, dominated this new imagined future of adult novelty.

The mainstream wave of teledildonics—represented by RealTouch, Fleshlight, Kiiroo, and WeVibe Connect—with its high production costs due to licensing fees and mass manufacture, and its emphasis on partner sex within a couple, seemed to demonstrate the association of adult novelty with high technology would inevitably make adult novelty more demographically similar to corporate tech culture: panelists were overwhelmingly white and male, and white heterosexual couples dominated these new companies’ advertising. A notable exception to the new wave of teledildonics’ heteronormativity has been Kiiroo, whose Onyx “male” device offers two-way communication with other Onyx devices.⁵¹⁷ This emphasis on the gay male market (still overwhelmingly imagined as white, in keeping with an imagined “pink dollar” market), may be partially in response to the market issues

⁵¹⁵ Lynn Comella, “From Text to Context,” 82.

⁵¹⁶ Comella, “From Text to Context.”

⁵¹⁷ KIIROO, “Onyx – Male Masturbator,” accessed 28 July 2015, kiiroo.com/onyx/.

RealTouch had with its lack of gay male early adopters.⁵¹⁸ Commentators have long argued Fleshlight's success in the masturbator market has been a result of its adoption in gay male pornography, and its advertising to a gay male market.⁵¹⁹ RealTouch, despite initially including a section on its beta cam site for male models, failed to gain traction with the gay male market, focusing instead on the "straight" webcam market, including an imagined male market for both single women models and bisexual-identified models working with a partner.⁵²⁰ These often queer-identified models are both consumers and workers in teledildonics webcam markets. Companies like RealTouch and Kiiroo have advertised teledildonics as a way for webcam models to increase their profits. In return, webcam models provide special offers to clients to purchase teledildonics at a discount, thus acting as both operators and salespeople of these devices. Moreover, because devices marketed for couples are often getting greater use as webcam accessories, it is unclear how many heterosexual women are involved with teledildonics non-professionally. A better understanding of markets for teledildonics is needed, in both the webcam and couples sectors, before scholars can take seriously companies' advertising claims that they will replicate the corporate model of the tech industries.

Teledildonics means very different things to hobbyists and to mainstream adult novelty developers. Companies like Kiiroo attempt to produce some version of Joel Stein's "gold standard"—a seamless transmission of sexual experience across media networks—

⁵¹⁸ Daniel Cooper, "Adult Themes: The Rise and Fall of America's First Digital Brothel."

⁵¹⁹ Nate Johnson, "Fleshjack Wins Cybersocket Award," *Adult Video News* 19 February 2008, accessed 28 July 2015, business.avn.com/articles/novelty/Fleshjack-Wins-Cybersocket-Award-23809.html.

⁵²⁰ Cooper, "Adult Themes: The Rise and Fall of America's First Digital Brothel."

while hobbyists who admired the dream of teledildonics for the new sexual possibilities it might provide design more consumer-responsive products like the Mod and the Ambrosia Vibe after declaring teledildonics a dead end. Often, as Lisa Palac experienced in the 1990s, teledildonics continues to act as a gateway to adult novelty interest and development, with the promise of high technology serving to justify interest in sexual products and sexual experiences.

2015 was a year of contradictions for teledildonics companies. In January, Kiiroo showed off its partnerships at trade shows including XBIZ 360: Fleshlight, the cam site Flirt4Free, and 3D-animated adult virtual world Red Light Center.⁵²¹ In May, Lovense announced its own partnership with VirtualRealPorn, a live-action virtual porn producer.⁵²² By July, however, technology journalist Annalee Newitz wrote, “The dream of teledildonics, or having sex over the internet using remote-controlled sex toys, has been around since the 1990s. Every once in a while, new companies try to perfect the technology, so that you can enhance your sexting with a little something extra. But now the dream is about to die—thanks to patent trolls.” TZU, the new owners of the 1998 teledildonics patent, had just sued six companies for infringement.⁵²³ In early September, RealTouch, one of the products named in the lawsuit, finally shut down its webcam site, as models scrambled to make their final dates with RealTouch fans.

⁵²¹ Rae Votta, “The Future of Virtual Sex is Like Nothing You’ve Felt Before,” *Daily Dot* 16 January 2015, accessed 14 December 2015, [dailydot.com/technology/future-of-virtual-sex-kiiroo-fleshlight-oculus-porn/..](http://dailydot.com/technology/future-of-virtual-sex-kiiroo-fleshlight-oculus-porn/)

⁵²² Mandy Stadtmiller, “Virtual Reality Sex is Coming—and the Toys are Already Here,” *Mashable* 29 May 2015, accessed 14 December 2015, mashable.com/2015/05/29/virtual-reality-sex/#KmJZA3joKgqE.

⁵²³ Stadtmiller, “Virtual Reality Sex is Coming.”

A month after RealTouch Interactive went offline, a friend commented that teledildonics would never really take off; there must not be a market or a fan base for such things, and the technology is not really all that good. The data I had been collecting on the RealTouch Interactive Beta suggested the opposite: a small, dedicated fan base, convinced RealTouch was the best teledildonic device money could buy, had been desperately trying to get their hands on the last few remaining devices since the company ceased manufacturing, and some cam models were scheduling dates on the day after the device's web chat interface was supposed to disappear forever.

As Chapter 4 demonstrates, teledildonics has never lacked a fan base. However, fans of teledildonics are not all committed to the idea as a commercial industry, nor are all teledildonics audiences consumers interested in buying the certain set of penetrable toys that have been marketed as "teledildonic." Instead, there are many audiences for teledildonics: (1) armchair enthusiasts, who read and laugh about teledildonics; (2) journalists, who write about teledildonics; (3) tinkerers, who build and experiment with teledildonics; (5) patent holders, who have repeatedly sued teledildonics manufacturers, demanded patent licensing fees, and sold and resold patents to make a profit; (6) entrepreneurs, who hope to make money from a "teledildonic" device and/or platform; (7) webcam performers, who make money by incorporating teledildonics into their shows; and finally (8) people who are interested in buying and using a teledildonic interface. In short, teledildonics are still very popular, but their popularity exists on multiple levels, as a joke about the excesses of technology culture, as a feature of the digital sublime, and as an industrial category within or outside the adult novelty industry. The sometimes-frustrating restriction of teledildonics to the realm of speculation has much to do with the recent litigiousness of patent holders in the area of PC-

driven interactive adult devices. However, it also has to do with the ways in which teledildonic experiences have integrated themselves into our everyday lives. Since the 1990s when teledildonics became a meme, cybersex has become an element of “real sex,” not indistinguishable from in-person sexual contact but part of a continuum of contemporary relationships among people with access to smartphones and other networked devices. This subtle migration of sexuality online follows the increasing movement of non-sexual touch and affect into digital spaces as well. The audiences for many new technologies marketed as haptic follow the above list of audiences for teledildonics. However, this project has argued that it has become useful to consider all media as haptic, even when they do not deploy haptic technology. The current wave of “teledildonics,” crowdfunded independent adult novelty products that are marketed as wearable technology, reject the term teledildonics entirely.

Counter-Teledildonics: The Future of Haptic Media

Months after my conversation about the demise of RealTouch, I attended a crowdfunding campaign “launch party” for Lioness, a recently-rebranded vibrator startup formerly known as SmartBod. The company’s design, which is still in development, is a rabbit-style insertable toy with vibrators inside and outside the body that will be able to measure the speed and intensity of vaginal contractions. I tried my luck at a light-up game booth that challenged me to grip a handle with the same pressure as a typical vaginal contraction, and I managed to win myself a company button as a prize. The party took place across the street

from UC Berkeley campus, an unsurprising fact considering the startup began at UC Berkeley's tech incubator, the Foundry.⁵²⁴

Sex toys that are controlled through a smartphone interface have not faced this same set of patent issues as teledildonics, because they do not fit these patents' late 1990s image of personal computers connected to the Internet (Fig. 3). Companies including OhMiBod, Vibease, and We-Vibe have successfully marketed apps to accompany their vibrating toys. Like Kiiproo, these products most often advertise themselves as an accessory to couples' long-distance relationships. However, these devices also have some historical ties to the subcultures described above. The first version of OhMiBod's app was based on an experimental game design called "Body Heat," by Heather Kelley, a frequent presenter at Arse Elektronika. Vibease's "chat" app includes a store where customers may purchase audio-erotica, which frames the Vibease as a haptic interface for the descendants of *Cyborgasm* by Lisa Palac. Finally, WeVibe's "We Connect" app advertises itself as an accessory to couples' texting, just as Kiiproo advertises itself as an accessory to couples' video chat. However, unlike web-controlled sex toys marketed to men like Kiiproo and RealTouch, these app-controlled vibrators do not usually advertise themselves as "teledildonic," though they may be described as such by journalists.⁵²⁵ Instead, they more

⁵²⁴ Patricia Yollin, "An Orgasm App? UC Berkeley-Nurtured Tech Team Launches Its 'Smart' Vibrator," *Cal Alumni Association* 18 March 2015, accessed 1 October 2016, alumni.berkeley.edu/california-magazine/just-in/2015-03-18/orgasm-app-uc-berkeley-nurtured-tech-team-launches-its-smart.

⁵²⁵ See for example Helen MacMillan, "We Tried It: You Can Now Get Your Partner Off With an App," *Refinery29* 17 September 2014, accessed 1 October 2016, refinery29.com/2014/09/74657/we-vibe-4-couples-sex-toy.

frequently use the language of sex education, suggesting more sophisticated vibrator control interfaces may help women learn about their bodies.

Lioness promises to be less a high-tech vibrator than a wearable fitness device for the vagina, as co-founder and Berkeley MBA graduate James Wang describes: “You get continual feedback . . . You can also baseline with other people. For a lot of women, because it’s such a taboo topic, they want to know where they fall within the spectrum.”⁵²⁶ Like women-centric adult novelty companies before them, the founders of Lioness frame their design within a discourse of women’s sexual education and empowerment. Co-founder Liz Klinger, an alumna of Wellesley College and the sex toy “Tupperware party” service Passion Parties, argues:

How we’re different is that we help women learn more about their own bodies and about themselves . . . We do that by using sensors inside the vibrator that can capture a woman’s unique arousal and orgasm characteristics. So, depending on how you prefer certain stimulation or certain experiences, it can pick up on that over time and can inform you about different things you could try—or give you certain trends if you’re looking to improve the experience.⁵²⁷

This framework of women’s sexual education, startup culture, and wearable fitness technology set Lioness apart from the larger adult novelty industry, if only because its founders are more likely to appear at a crowdfunding workshop than at an adult industry conference. This cultural divide, between the sexually conservative world of startups and the

⁵²⁶ Yollin, “An Orgasm App?”

⁵²⁷ Yollin, “An Orgasm App?”

more frank world of adult novelty, led the company to present itself in metaphorical terms, shying away from certain discussions of the toy's specifics.

Lioness's "pitch video,"⁵²⁸ made to advertise their \$116,178 Indiegogo campaign, resembles short films from Dove's "Real Beauty Campaign,"⁵²⁹ in that it leads with women filmed in a sparse white set, telling personal stories of their own sexual repression. Over sparse piano music, a young, well-dressed woman begins the video euphemistically: "I don't think you ever talk about it. It's a weird topic. It's definitely something you figure out on your own." Another, slightly older, with a nose ring and a white turtleneck confesses: "my family is very silent. They are a silent, very mute—or if sex was ever brought up, um, especially if you're a woman, it was just like, 'Well, you can't do that. You just can't. Why are you even thinking of that?'" The word "sex" appears after fifteen seconds, the word "masturbate" after nearly a minute of video, and the word "vibrator" only after one minute and forty seconds of a two and a half minute piece. The product itself appears in muted colors like gray and navy blue at the two minute mark: a modernist design reminiscent of products designed by Lelo and Jimmyjane, or even the RealTouch Joystick. In conversation with their crowdfunding consultant, Lioness employees confessed they had been asked about "teledildonics" since they founded their company, but being associated with the word would be a nightmare.⁵³⁰

⁵²⁸ "Lioness Vibrator: Improve Your Sexual Experiences," *Indiegogo* 9 April 2016, accessed 1 October 2016, indiegogo.com/projects/lioness-vibrator-improve-your-sexual-experiences--2#/.

⁵²⁹ See "Dove Real Beauty Sketches" (dir. John X. Carey, 6 min., 2013), Dove US, *YouTube* 14 April 2013, accessed 1 October 2016, youtube.com/watch?v=XpaOjMXyJGk.

⁵³⁰ Rachel Allen (Indiegogo Campaign Strategist), Interview, 9 February 2016, Oakland, CA.

What separates Lioness's sexual future from the promise of teledildonics? While teledildonics imagines science providing new peak sexual experiences for certain high-end tech-savvy consumers, Lioness imagines technology teaching sexually-repressed upper middle class women what they do not know about their bodies. Teledildonics promised to move sexual cruising and sex work from the streets to the Internet, in a technologized version of safer sex that includes no human body contact. Lioness promises to enhance (coupled, monogamous) in-person sex, and to connect users to an online sexual fitness community. The enduring appeal of teledildonics as a sexual fantasy could be described in terms of Michel Foucault's argument that there is a subtle *ars electronica* to the science of sex, "the errant fragments of an erotic art that is secretly transmitted by confession and the science of sex."⁵³¹ However, the application of sex technology to the medium of a wearable fitness device has more in common with the *techne tou bio* or "art of life," "exercising a perfect mastery over oneself" Foucault attributes to the Greek classical period.⁵³² In this way, the eclipsing of "teledildonics" by contemporary startups like Lioness follows larger trends in technology culture toward total body quantification and data-driven self-optimization. Because they directly discipline the body, wearables could be the clearest example of haptic media acting in the service of dominant labor and cultural regimes.

In the 1990s, teledildonics hit a cultural nerve because it simultaneously fit a dominant narrative about how media would soon be haptic, existing within dreams of "cyberspace" and virtual reality, while simultaneously offering a subversive, or

⁵³¹ Michel Foucault, *The History of Sexuality, Volume 1: An Introduction*. Trans. Robert Hurley (New York: Vintage Books, 1990), 71.

⁵³² Michel Foucault, "On *The Genealogy of Ethics: An Overview of a Work in Progress*," in *The Foucault Reader*, ed. Paul Rabinow (New York: Vintage Books, 2010), 348.

“counterhaptic,” parody of this future’s aspirations to improve all culture, by suggesting this improved sexual future could be far more queer than anyone had previously imagined.

Teledildonics in the 00s had much in common with the tradition of “porn parody,” using the medium of the hacker project to poke fun at exclusionary and sexist gaming culture. Today’s teledildonics, commercial products designed to capitalize on sex and technology fandom and/or couples in long distance relationships, may have lost some of this critical edge.

Perhaps this is because the acceptance of sexuality and sex work is no longer subversive in itself, to a market increasingly driven by affective labor.

The mainstreaming and subsequent retreat of “teledildonics” into the woodwork of the media industries demonstrates the centrality of the haptic to contemporary media production. Whereas haptic effects on the body such as those in the body genre, or in haptic visibility were counter to a sensory media regime centered on visibility, the haptic is now at the center of media’s sensory repertoire. Teledildonics, like haptic media more generally, may be cutaneous (*RealTouch*), affective (*Cyborgasm*), kinesthetic/proprioceptive (in partnership with *VirtualRealPorn*), or measurement-based (*Lioness*). Teledildonics, like haptic media, exist across the film, videogame, crowdfunding, social media, and consumer electronics industries. Moreover, the importance of teledildonics as a mythology since the 1990s demonstrates our cultural desire to centralize the touchable and embodied aspects of media over the visual. Struggles over teledildonics have taken place on the ground of the haptic, as certain versions of how touch will affect the future of media have battled with other versions of futuristic touch. These struggles, like all discussed in this project have been between the haptic and the counter-haptic, haptic forms that rise up to challenge dominant assumptions about touch, affect, and embodiment. By framing new media as intrinsically and

centrally haptic, scholars can become more aware of how this sensory regime shapes media production, consumption, and criticism.

Final Thoughts and Future Directions

There is nothing new about the promise of new media. However, one increasingly important uniting principle for the fantasies and frustrations of media technology is that of the haptic: the promise of touch and embodied immersion in many forms. Touch can point to intersubjectivity and greater connection, as in the promises of the haptic aesthetics of “intercultural cinema,” and the instructive dreams written onto queer “empathy games.” Or it touch may promise power and control to those able to touch others. Electricity, cyberspace, and ubiquitous computing all promise access to an invisible manipulable force that surrounds us and could be used to create or destroy, to end history in a utopia or dystopia, and to collapse difference.

These dreams are problematic: the desire to feel limitless freedom and control underpins the often-neoliberal fantasies of dominant science fiction, and dominant politics. Moreover, the demand for the feeling of freedom may actually lead to greater oppression for the majority of people. As queer and affect theorist Lauren Berlant argues in a short piece for *The New Inquiry*, the American desire for “emotional freedom” may have led to the election of Donald Trump, a politically-inexperienced, vocally bigoted, ruthless capitalist, to the position of President of the United States. Berlant writes, “The Trump Emotion Machine is delivering feeling ok, acting free.”⁵³³ That freedom, a central and embattled tenet of American nationalism, can be understood today primarily in terms of feelings, marks the

⁵³³ Lauren Berlant, “Trump, or Political Emotions,” *The New Inquiry* 5 August 2016, thenewinquiry.com/features/trump-or-political-emotions/.

haptic as the central battleground of our time. Feeling what Berlant terms *unfreedom*—either directly, as in the experiences of “woke” members of oppressed groups, or vicariously, as non-black liberals may feel when faced with repeated police murders of unarmed black Americans—may be as important to the Left as pursuing this emotional freedom is to the “alt-Right” of white nationalism. Logic and scientific rationality, sometimes held up as the opponents of the new haptic orientation to media and politics, are also tools of labor exploitation and colonialism that may be long past their prime. Meanwhile, the desire to feel free, while ignoring the facts of policy, leads the citizens of formerly colonizing countries to support new authoritarian regimes. Henry Giroux argues that teaching critical thinking skills, and developing new critical theories can be an effective form of resistance to authoritarianism for academics and writers.⁵³⁴ Affect theorists since September 11, 2001 have turned to the study of feelings as a source of new critical perspectives. As Ann Cvetkovich describes, the Public Feeling project uses keywords like “depression” to describe “how capitalism feels,” and put “pressure on . . . left-progressive projects not to rush to meta-commentary.”⁵³⁵ Public Feelings’ “focus on sensation and feeling as the register of historical experience gives rise to new forms of documentation and writing,” forms that center fantasy, affect, and mystery, and use close examination of everyday life to document systems of power.⁵³⁶ How does the framework of haptic media contribute to these various strategies of critical development in an age of dangerous feelings? How may a focus on sexuality and

⁵³⁴ Henry A. Giroux, *Dangerous Thinking in the Age of the New Authoritarianism* (London: Routledge, 2015).

⁵³⁵ Ann Cvetkovich, *Depression: A Public Feeling* (Durham, NC: Duke University Press, 2012), 11.

⁵³⁶ Cvetkovich, *Depression*, 11.

embodiment in futuristic media fantasies help center the experiences of women, queer and trans people, and people of color in the haptic media landscape? This project provides a preliminary framework and set of examples for addressing these questions.

Appendix

I: Texts Representing Haptic Media by Medium and Release Date

Film/Video

Barbarella (dir. Roger Vadim, France/Italy, 1968)

THX 1138 [1971] (dir. George Lucas, US, 2004)

Sleeper (dir. Woody Allen, US, 1972)

Zardoz (dir. John Boorman, UK, 1974)

Logan's Run (dir. Michael Anderson, US, 1976)

Looker (dir. Michael Crichton, US, 1981)

TRON (dir. Steven Lisberger [Disney], US, 1982)

Brainstorm (dir. Douglas Trumbull, US, 1983)

Videodrome (dir. David Cronenberg, Canada, 1983)

Pee-Wee's Big Adventure (dir. Tim Burton, 1985)

"Speed Demon" (short), in *Moonwalker* (dir. Will Vinton, 1988, dist. Warner Bros.)

The Wizard (dir. Todd Holland, US, 1989)

The Lawnmower Man (dir. Brett Leonard, UK/US/Japan, 1992)

Demolition Man (dir. Marco Brambilla, US, 1993)

Disclosure (dir. Barry Levinson, US, 1994)

Brainscan (dir. John Flynn, Canada/US/UK, 1994)

Virtual Seduction (dir. Paul Ziller, US, 1995)

Strange Days (dir. Kathryn Bigelow, US, 1995)

Virtuosity (dir. Brett Leonard, US, 1995)

Virtual Encounters (dir. Cybil Richards, US, 1996)

Cybersex (dir. Brad Armstrong, US, 1996)

Nirvana (dir. Gabriele Salvatores, Italy/France, 1997)

Virtual Girl (dir. Richard Gabai, US, 1998)

eXistenZ (dir. David Cronenberg, Canada/UK, 1999)

Sex Files: Sexual Matrix (dir. Udo Blass, US, 2000)

I.K.U. (dir. Shu Lea Cheang, Japan, 2000)

Thomas est amoureux (Thomas in Love) (dir. Pierre-Paul Renders, Belgium/France, 2000)

How to Be a Cyber-Lovah (dir. Kier Serrie, US, 2001)

Cyberslut (dir. Jonathan Gann, US, 2001)

Minority Report (Steven Spielberg, US, 2002)

“Final Flight of the Osiris,” (dir. Andrew R. Jones, US, 2003), *The Animatrix*

Click (dir. Frank Coraci, US, 2006)

Guy 101 (dir. Ian W. Gouldstone, US, 2006)

Paprika (dir. Satoshi Kon, Japan, 2006)

Television

TekWar (CTV, dir. William Shatner, Canada/US, 1994-1996)

Sex in the City season 1, episode 9, “The Turtle and the Hare” (2 August 1998)

The Big Bang Theory season 5, episode 2, “The Infestation Hypothesis” (22 September 2011)

Print

Brave New World (Aldous Huxley, Print, 1931)

II: Case Studies by Date of First Study

Adult Video News Adult Entertainment Expo, Las Vegas, NV (January 2012, 2013, 2014)

Arse Elektronika (September 2012, 2013, 2014)

D-BOX Theaters

Thousand Oaks, CA (December 2013)

Contra Costa Stadium Cinemas, Martinez, CA (February 2015, May 2015)

Captain EO Tribute at Disneyland, CA (December 2013)

XBIZ 360, Los Angeles, CA (January 2014, 2015)

Maker Faire, San Mateo, CA (May 2014)

The Crash Pad Series, Pink & White Productions, San Francisco, CA (May 2014, June 2014)

Queerness and Games Conference, attended then co-facilitated, Berkeley, CA (October 2014, October 2015)

Facebook Campus (January 2015, March 2016)

Google Plex (January 2015)

Queerness and Games Workshop, co-facilitated, Berkeley, CA (September-October 2015)

III: Formal Interviews by Date

Heather Kelley (July 2012)

Endo Jezek (product manager for RealTouch) part 1 (January 2012)

Endo Jezek (product manager for RealTouch) part 2 (January 2013)

TC, photographer for *The Crash Pad Series* (May 2014)

Jiz Lee, producer at *The Crash Pad Series* (June 2014)

IV: Independent Games Included in Project, by Year and Studio/Author Name

Passage (Jason Rohrer, 2007)

Mighty Jill Off (Anna Anthropy, 2008)

Don't Take It Personally Babe, It Just Ain't Your Story (Christine Love, 2011)

Lesbian Spider Queens of Mars (Anna Anthropy, 2011)

Dys4ia (Anna Anthropy with music by Liz Ryerson, 2012)

Mainichi (Mattie Brice, 2012)

Lim (Merritt Kopas, 2012)

Queers in Love at the End of the World (Anna Anthropy, 2013)

Triad (Anna Anthropy, 2013)

Duck Duck Poison (Anna Anthropy and Egypt Urnash, 2013)

Fuck That Guy (Benji Bright, 2013)

Gone Home (Fullbright, 2013)

HUGPUNX (Merritt Kopas, 2013)

Even Cowgirls Bleed (Christine Love, 2013)

Magical Maiden Madison (Christine Love, 2013)

Horse Master: A Game of Horse Mastery (Tom McHenry, 2013)

Cry\$tal Warrior Ke\$ha (Porpentine, 2013)

Ultra Business Tycoon III (Porpentine, 2013)

SABBAT (Eva Problems, 2013; director's cut 2015)

Gay Cats Go to the Weird Weird Woods (Anna Anthropy, 2014)

Curtain (Llaura Dreamfeel, 2014)

Empathy Machine (Merritt Kopas, 2014)

Quing's Quest IV: The Death of Videogames! (Dietrich "Squinky" Squinkifer, 2014)

Coffee: A Misunderstanding (Dietrich "Squinky" Squinkifer, 2014)

Hurt Me Plenty (Robert Yang, 2014)

Be Witching (Anna Anthropy, 2015)

Empathy Game (Anna Anthropy, 2015)

Ohmigod Are You Alright? (Anna Anthropy, 2015)

Sunset (Tale of Tales, 2015)

Undertale (Toby Fox, 2015)

(ASMR) Vin Diesel DMing a Game of D&D Just for You (Merritt Kopas, 2015)

Conversations We Have in My Head (Dietrich "Squinky" Squinkifer, 2015)

Tentacles Growing Everywhere (Dietrich "Squinky" Squinkifer, 2015)

So You've Been Called Out (Dietrich "Squinky" Squinkifer, 2015)

Cobra Club (Robert Yang, 2015)

Succulent (Robert Yang, 2015)

Stick Shift (Robert Yang, 2015)

References

1. Ahmed, Sara. *The Cultural Politics of Emotion*. New York: Routledge, 2004.
2. Altman, Rick. "Television/Sound." In *Studies in Entertainment: Critical Approaches to Mass Culture*, edited by Tania Modleski, 39–54. Bloomington: Indiana University Press, 1986.
3. Anderson, Chris. *Makers: The New Industrial Revolution*. New York: Crown Business, 2012.
4. Anthropy, Anna. *Rise of the Videogame Zinesters: How Freaks, Normals, Amateurs, Artists, Dreamers, Dropouts, Queers, Housewives, and People Like You are Taking Back an Art Form*. New York: Seven Stories Press, 2012.
5. Archibald, Timothy. *Sex Machines: Photographs and Interviews*. Los Angeles: Process, 2005.
6. Arnheim, Rudolf. *Film as Art*. Berkeley: University of California Press, 1957.
7. Arnheim, Rudolf. "The Two Authenticities of the Photographic Media." *The Journal of Aesthetics and Art Criticism* 51, no. 4 (Fall 1993): 537–40.
8. Barker, Jennifer M. *The Tactile Eye: Touch and the Cinematic Experience*. Berkeley: University of California Press, 2009.
9. Bassett, Caroline, Ed Steinmueller, and Georgina Voss. "Better Made Up: The Mutual Influence of Science Fiction and Innovation." Nesta Working Paper No. 13/07 (March 2013). nesta.org.uk/wp13-07.
10. Baudry, Jean-Louis. "Ideological Effects of the Basic Cinematographic Apparatus." Translated by Alan Williams. *Film Quarterly* 28, no. 2 (Winter 1974–75): 39–47.
11. Bazin, André. "The Myth of Total Cinema." In *What is Cinema? Volume 1*, edited and translated by Hugo Gray, 17–22. Berkeley: University of California Press, 1967.
12. Bee, Aevee. "Towards a Cutie Aesthetic." *Mammon Machine Blog*, September 27, 2014. Accessed October 1, 2016. <http://www.mammonmachine.com/mammon-machine-central-routing/2014/9/27/towards-a-cutie-aesthetic->
13. Bellour, Raymond. "Believing in the Cinema." Translated by Dana Polan. In *Psychoanalysis and Cinema*, edited by E. Ann Kaplan, 98–109. New York: Routledge, 1990.
14. Belton, John. *Widescreen Cinema*. Cambridge, MA: Harvard University Press, 1992.

15. Heather Berg. "Labouring Porn Studies." *Porn Studies* 1, nos. 1-2 (2014): 75–79. Accessed October 1, 2016. doi:10.1080/23268743.2013.874621.
16. Bergstrom, Janet. "Androids and Androgyny." In *Close Encounters: Film, Feminism, and Science Fiction*, edited by Constance Penley, Elisabeth Lyon, Lynn Spigel, and Janet Bergstrom, 33–61. Minneapolis: University of Minnesota Press, 1991.
17. Berkowitz, Richard, Michael Callen, and Richard Dworkin. *How to Have Sex in an Epidemic: One Approach*. New York: News from the Front Publications, 1983.
18. Bogost, Ian. *Persuasive Games: The Expressive Power of Videogames*. Cambridge: MIT Press, 2007.
19. Braidotti, Rosi. *The Posthuman*. New York: Polity Press, 2013.
20. Brice, Mattie. "Play and Be Real About It—What Games Could Learn from Kink." *Alternate Ending*, July 31, 2014. Accessed October 1, 2016. <http://mattiebrice.com/play-and-be-real-about-it-what-games-could-learn-from-kink/>.
21. Bright, Susie. *Susie Bright's Sexual Reality: A Virtual Sex World Reader*. San Francisco: Cleis Press, 1992.
22. Brottman, Mikita. "Ritual, Tension, and Relief: The Terror of 'The Tingler,'" *Film Quarterly* 50, no. 4 (Summer 1997): 2–10. Accessed October 1, 2016. doi: 10.2307/1213440.
23. Cabezas, Amalia L. *Economies of Desire: Sex and Tourism in Cuba and the Dominican Republic*. Philadelphia: Temple University Press, 2009.
24. Caldwell, John Thornton. *Production Culture: Industrial Reflexivity and Critical Practice in Film and Television*. Durham, NC: Duke University Press, 2008.
25. Cartwright, Lisa. *Screening the Body: Tracing Medicine's Visual Culture*. Minneapolis: University of Minnesota Press, 1995.
26. Castle, William. *Step Right Up!...I'm Gonna Scare the Pants Off America: Memoirs of a B-Movie Mogul*. Kindle Edition: Copyright William Castle, 2010.
27. Chun, Wendy Hui Kyong. *Control and Freedom: Power and Paranoia in the Age of Fiber Optics*. Cambridge: MIT Press, 2006.
28. Chun, Wendy Hui Kyong. *Programmed Visions: Software and Memory*. Cambridge: MIT Press, 2011.

29. Clark, Naomi and Merritt Kopas. "Queering Human-Game Relations: Exploring Queer Mechanics and Play." *First Person Scholar*, February 18 2015. Accessed October 1, 2016. <http://www.firstpersonscholar.com/queering-human-game-relations>.
30. Clover, Carol. *Men, Women, and Chain Saws: Gender in the Modern Horror Film*. Princeton, NJ: Princeton University Press, 1992.
31. Comella, Lynn. "From Text to Context: Feminist Porn and the Making of a Market." In *The Feminist Porn Book: The Politics of Producing Pleasure*, edited by Tristan Taormino, Constance Penley, Celine Parreñas Shimizu, and Mireille Miller-Young, 79–93. New York: The Feminist Press, 2013.
32. Comella, Lynn. "Studying Porn Cultures." *Porn Studies* 1, nos. 1-2 (2014): 64–70. Accessed October 1, 2016. doi:10.1080/23268743.2014.882611
33. Comolli, Jean-Louis. "Technique and Ideology: Camera, Perspective, Depth of Field [Parts 3 and 4]." In *Narrative, Apparatus, Ideology*, edited by Phillip Rosen, 421–43. New York: Columbia University Press, 1986.
34. Corrigan, Timothy. "The Commerce of Auteurism," in *Film and Authorship*, edited by Virginia Wright Wexman, 96–111. Rutgers, NJ: Rutgers University Press, 2003.
35. Cvetkovich, Ann. *Depression: A Public Feeling*. Durham: Duke University Press, 2012.
36. Dewey, Susan. *Neon Wasteland: On Love, Motherhood, and Sex in a Rural Rust Belt Town*. Berkeley: University of California Press, 2011.
37. Dibbell, Julian. "A RAPE IN CYBERSPACE: How an Evil Clown, a Haitian Trickster Spirit, Two Wizards, and a Cast of Dozens Turned a Database Into a Society." *Village Voice*, December 23, 1993. Accessed July 28, 2015. http://www.juliandibbell.com/texts/bungle_vv.html.
38. Duggan, Lisa and Nan D. Hunter, eds. *Sex Wars: Sexual Dissent and Political Culture*. New York: Routledge, 2006.
39. During, Simon. "Introduction." In *The Cultural Studies Reader*, 2nd edition, edited by Simon During, 1–28. London: Routledge, 1999.
40. Everett, Anna. "Digitextuality and Click Theory: Theses on Convergence Media in the Digital Age." In *New Media: Theories of Practices of Digitextuality*, edited by Anna Everett and John Caldwell, 3–28. New York: Routledge, 2003.
41. Everett, Anna. *Digital Diaspora: A Race for Cyberspace*. Albany: SUNY Press, 2009.

42. Farman, Jason. *Mobile Interface Theory: Embodied Space and Locative Media*. New York: Routledge, 2012.
43. Ferguson, Ann. "Sex War: The Debate Between Radical and Libertarian Feminists." *Signs* 10, no. 1 (Autumn, 1984): 106–112.
44. Florida, Richard. *The Rise of the Creative Class, Revisited*. New York: Basic Books, 2012.
45. Foucault, Michel. *The History of Sexuality, Volume 1: An Introduction*. Translated by Robert Hurley. New York: Vintage Books, 1990.
46. Foucault, Michel. "What is an Author?" Translated by Robert Hurley. In *Aesthetics, Method and Epistemology*, edited by James D. Faubion, 205–22. New York: New Press, 1998.
47. Foucault, Michel. "On *The Genealogy of Ethics*: An Overview of a Work in Progress." In *The Foucault Reader*, ed. Paul Rabinow, 340–72. New York: Vintage Books, 2010.
48. Friedberg, Anne. *Window Shopping: Cinema and the Postmodern*. Berkeley: University of California Press, 1993.
49. Galloway, Alexander R. *Gaming: Essays on Algorithmic Culture*. Minneapolis: University of Minnesota Press, 2006.
50. Gazzard, Alison. "Standing in the Way of Control: Relationships between Gestural Interfaces and Game Spaces." In *Ctrl-Alt-Play: Essays on Control in Video Gaming*, edited by Matthew Wussocki, 121–32. Jefferson, NC: McFarland, 2013.
51. Gillan, Jennifer. *Television and New Media: Must-Click TV*. New York: Routledge, 2010.
52. Giroux, Henry A. *Dangerous Thinking in the Age of the New Authoritarianism*. London: Routledge, 2015.
53. Gray, Jonathan. *Show Sold Separately: Promos, Spoilers, and other Media Paratexts*. New York: NYU Press, 2010.
54. Halberstam, Jack. *The Queer Art of Failure*. Durham, NC: Duke University Press, 2011.
55. Hall, Stuart. "Encoding/Decoding." In *Media and Cultural Studies Keywords*, edited by Meenakshi Kiki Durham and Douglas M. Kellner, 163–73. Malden, MA: Blackwell Publishing, 2006.

56. Hansen, Mark B. N. *Bodies in Code: Interfaces With Digital Media*. New York: Routledge, 2006.
57. Haraway, Donna. "A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century" [1991]. In *The Cybercultures Reader*, edited by David Bell and Barbara M. Kennedy, 291–324. New York: Routledge, 2000.
58. Haraway, Donna, ed. *The Haraway Reader*. New York: Routledge, 2003.
59. Hatwell, Yvette. "Introduction: Touch and Cognition." In *Touching for Knowing: Cognitive Psychology of Haptic Manual Perception*, edited by Yvette Hatwell, Arlette Streri, and Edouard Gentaz, 1–14. Philadelphia: John Benjamins, 2003.
60. Hayles, N. Katherine. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago: University of Chicago Press, 1999.
61. Heffernan, Kevin. *Ghoul, Gimmicks, and Gold: Horror Films and the American Movie Business*. Durham, NC: Duke University Press, 2004.
62. Hilderbrand, Lucas. *Inherent Vice: Bootleg Histories of Videotape and Copyright*. Durham, NC: Duke University Press, 2009.
63. hooks, bell. *Black Looks: Race and Representation*. Boston: South End Press, 1992.
64. Hunt, Lynn. *The Invention of Pornography 1500-1800: Obscenity and the Origins of Modernity*. New York: Zone Books, 1993.
65. Huntemann, Nina. "Pink Slips for Booth Babes?: No Way! Re-Train and Re-Skill." *Flow* 5, no. 15 (February 2007). Accessed October 1, 2016. <http://www.flowjournal.org/2007/02/pink-slips-for-booth-babes-no-way-re-train-and-re-skill/>.
66. Huxley, Aldous. *Brave New World* [1932]. New York: HarperCollins, 2006.
67. Jenkins, Henry. *Convergence Culture: Where Old and New Media Collide*. New York: NYU Press, 2006.
68. Jenkins, Henry, Sam Ford, and Joshua Green. *Spreadable Media: Creating Value and Meaning in a Networked Culture*. New York: NYU Press, 2013.
69. Juffer, Jane. *At Home with Pornography: Women, Sex, and Everyday Life*. New York: NYU Press, 1999.
70. Juul, Jesper. *The Art of Failure: An Essay on the Pain of Playing Video Games*. Cambridge: MIT Press, 2013.

71. Kendrick, Walter. *The Secret Museum: Pornography in Modern Culture*. Berkeley: University of California Press, 1997.
72. Kinder, Marsha. *Playing With Power in Movies, Television, and Video Games: From Muppet Babies to Teenage Mutant Ninja Turtles*. Berkeley: University of California Press, 1991.
73. Kline, Stephen Nick Dyer-Witthford, and Grieg De Peuter. *Digital Play: The Interaction of Technology, Culture, and Marketing*. New York: McGill-Queen's University Press, 2003.
74. Kopas, Merritt, ed. *Videogames For Humans: Twine Authors in Conversation*. San Francisco: Instar Press, 2015.
75. Lauteria, Evan W. "Ga(y)mer Theory: Queer Modding as Resistance," *reconstruction* 12, no. 2 (2012). Accessed October 1, 2016.
http://reconstruction.eserver.org/Issues/122/Lauteria_Evan.shtml.
76. Lev, Peter. *History of the American Cinema Volume 7: 1950–1959*. Berkeley: University of California Press, 2003.
77. Levy, David. *Love and Sex With Robots: The Evolution of Human-Robot Relationships*. New York: HarperCollins, 2007.
78. Lewis, Jon. *Hollywood v. Hard Core: How the Struggle over Censorship Saved the Modern Film Industry*. New York: NYU Press, 2000. Kindle Edition.
79. Lipkin, Nadav. "Controller Controls: Haptics, Ergon, Teloi and the Production of Affect in the Video Game Text." In *Ctrl-Alt-Play: Essays on Control in Video Gaming*, edited by Matthew Wysocki, 34–45. Jefferson, NC: McFarland, 2013.
80. Lotz, Amanda D. *The Television Will Be Revolutionized*. New York: NYU Press, 2007.
81. Maines, Rachel P. *The Technology of Orgasm: "Hysteria," the Vibrator, and Women's Sexual Satisfaction*. Baltimore: Johns Hopkins University Press, 1999.
82. Manovich, Lev. *The Language of New Media*. Cambridge, MA: MIT Press, 2001.
83. Marks, Laura U. *The Skin of the Film: Intercultural Cinema, Embodiment, and the Senses*. Durham, NC: Duke University Press, 2000.
84. Marks, Laura U. *Touch: Sensuous Theory and Multisensory Media*. Minneapolis: University of Minnesota Press, 2002.

85. Merleau-Ponty, Maurice. *The Visible and the Invisible*, edited by Claude Lefort. Translated by Alphonso Lingis. Evanston, IL: Northwestern University Press, 1968.
86. Miller, Carl. “‘We are Here to Change the World’: *Captain EO* and the Future of Utopia,” in *Michael Jackson: Grasping the Spectacle*, edited by Christopher R. Smit, 117–29. Grand Rapids, MI: Ashgate, 2012.
87. Montfort, Nick and Ian Bogost. *Racing the Beam: The Atari Video Computer System*. Cambridge: MIT Press, 2009.
88. Morris, Charles E. III and Thomas K. Nakayama, eds. “Queerness and Video Games” special issue. *QED: A Journal of GLBTQ Worldmaking*, volume 2, issue 2 (2015). Accessed October 1, 2016. <https://muse.jhu.edu/issue/32156>.
89. Vincent Mosco. *The Digital Sublime: Myth, Power, and Cyberspace*. Cambridge, MA: MIT Press, 2004.
90. Mulvey, Laura. “Visual Pleasure and Narrative Cinema.” *Screen* 16.3 (Autumn 1975): 6–18.
91. Mulvey, Laura. “Visual Pleasure and Narrative Cinema,” in *Film Theory and Criticism: Introductory Readings*, edited by Leo Braudy and Marshall Cohen, 833–44. New York: Oxford University Press, 1999.
92. Mulvey, Laura. “Afterthoughts on ‘Visual Pleasure and Narrative Cinema’ Inspired by King Vidor’s *Duel in the Sun* (1946),” in *Visual and Other Pleasures*, edited by Laura Mulvey, 29–38. London: Palgrave Macmillan, 1989.
93. Münsterberg, Hugo. *The Photoplay: A Psychological Study*. New York: D. Appleton and Company, 1916. Accessed July 31, 2014. <https://archive.org/details/photoplaypsycho005300mbp>.
94. Nakamura, Lisa. *Digitizing Race: Visual Cultures of the Internet*. Minneapolis: University of Minnesota Press, 2008. Kindle Edition.
95. Nakamura, Lisa. “Queer Female of Color: The Highest Difficulty Setting There Is? Gaming Rhetoric as Gender Capital.” *Ada: Gender, New Media, and Technology* 1 (2012). Accessed October 1, 2016. doi:10.7264/N37P8W9V.
96. National Legion of Decency. *Motion Pictures Classified by National Legion of Decency: A Moral Estimate of Entertainment Feature Motion Pictures*. New York: National Legion of Decency, 1959. Accessed March 31, 2014. <https://archive.org/details/motionpicturescl00nati>.

97. Newman, James. "The Myth of the Ergodic Videogame: Some thoughts on player-character relationships in videogames." *Game Studies* 2, no. 1 (2002). Accessed September 30, 2016, <http://gamestudies.org/0102/newman/>.
98. Ngai, Sianne. *Our Aesthetic Categories: Zany, Cute, Interesting*. Cambridge, MA: Harvard University Press, 2012.
99. Nooney, Laine. "A Pedestal, A Table, A Love Letter: Archaeologies of Gender in Videogame History." *Game Studies* 13, no. 2 (December 2013). Accessed October 1, 2016. <http://gamestudies.org/1302/articles/nooney>.
100. Palac, Lisa. *The Edge of the Bed: How Dirty Pictures Changed My Life*. New York: Little, Brown and Company, 1998.
101. Parisi, David. *Touch Machines: An Archaeology of Haptic Interfacing*. PhD dissertation. New York University, 2008. Accessed October 1, 2016. <http://gradworks.umi.com/33/46/3346267.html>.
102. Parisi, David. "Game Interfaces as Bodily Techniques." In *Handbook of Research on Effective Electronic Gaming in Education*, edited by Richard E. Ferdig, 111–26. Hershey, PA: IGI Global, 2008.
103. Parisi, David. "Shocking Grasps: An Archaeology of Electrotactile Game Mechanics." *Game Studies* 13 no. 2 (December 2013). Accessed June 9, 2015. <http://gamestudies.org/1302/articles/parisi>.
104. Constance Penley, "Brownian Motion: Women, Tactics, and Technology." In *Technoculture*. Edited by Constance Penley and Andrew Ross. Minneapolis: University of Minnesota Press, 1991.
105. Penley, Constance and Andrew Ross. "Cyborgs at Large: Interview with Donna Haraway." In *Technoculture*, edited by Constance Penley and Andrew Ross, 1–20. Minneapolis: University of Minnesota Press, 1991.
106. Penley, Constance. *NASA/TREK: Popular Science and Sex in America*. New York: Verso, 1997.
107. Penley, Constance, Celine Parreñas Shimizu, Mireille Miller-Young, and Tristan Taormino. "Introduction: The Politics of Producing Pleasure." In *The Feminist Porn Book: The Politics of Producing Pleasure*, edited by Tristan Taormino, Celine Parreñas Shimizu, Constance Penley, and Mireille Miller-Young, 9–20. New York: The Feminist Press, 2013.
108. Phillips, Amanda. "Crossing Paths With Colorblindness: Equality Street." *Gamer Trouble*, November 19, 2013. Accessed October 1, 2016.

- <https://gamertrouble.wordpress.com/2013/11/19/crossing-paths-with-colorblindness-equality-street/>.
109. Phillips, Whitney. *This is Why We Can't Have Nice Things: Mapping the Relationship Between Online Trolling and Mainstream Culture*. Cambridge: MIT Press, 2015.
 110. Pias, Claus. "The Game Player's Duty: The User as Gestalt of the Ports." In *Media Archaeology: Approaches, Applications, and Implications*, edited by Erkki Huhtamo and Jussi Parikka, 164–83. Berkeley: University of California Press, 2011.
 111. Piess, Kathy. *Cheap Amusements: Working Women and Leisure in Turn-of-the-Century New York*. Philadelphia: Temple University Press, 1986.
 112. Pozo, Diana. "War Games at Home, Home Games at War: Geography and Military First-Person Shooting Games." *MediaScape* (Winter 2012). Accessed June 9, 2015. http://www.tft.ucla.edu/mediascape/Winter2012_WarGames.html.
 113. Pozo, Diana. "Curtain: Queer Video Games, Identity, and Realism." *In Media Res*, November 11, 2014. Accessed October 1, 2016. <http://mediacommons.futureofthebook.org/imr/2014/11/11/curtain-queer-video-games-identity-and-realism>.
 114. Pozo, Diana. "Countergaming's Porn Parodies, Hard Core and Soft." In *Rated M for Mature: Sex and Sexuality in Video Games*, edited by Matthew Wysocki and Evan Lauteria, 133–46. New York: Bloomsbury, 2015.
 115. Pozo, Diana. "Trigger Warnings and the Porn Studies Classroom." *Porn Studies 2*, nos. 2-3 (September 2015): 286–89. Accessed October 1, 2016. doi:10.1080/23268743.2015.1054683.
 116. Problems, Eva and Imogen Binnie, "SABBAT by Eva Problems Played by Imogen Binnie." In *Videogames for Humans: Twine Authors in Conversation*, edited by Merritt Kopas, 57–83. San Francisco: Instar Books, 2015.
 117. Ray, Audacia. *Naked on the Internet: Hookups, Downloads and Cashing In on Internet Sexploration*. Emeryville, CA: Seal Press, 2007.
 118. Rheingold, Howard. *Virtual Reality: The Revolutionary Technology of Computer-Generated Artificial Worlds – and How it Promises to Transform Society*. New York: Simon and Schuster, 1992.
 119. Robinson, Philip, Nancy Tamosaitis, Peter Spear, and Virginia Soper. *The Joy of Cybersex: The Underground Guide to Electronic Erotica*. New York: Brady Publishing, 1993.

120. Rogers, Ariel. “‘You Don’t So Much Watch It as Download It’: Conceptualizations of Digital Spectatorship.” *Film History* 24, no. 2 (2012): 221–34.
121. Rosen, Paul, ed. *Narrative, Apparatus, Ideology*. New York: Columbia University Press, 1986.
122. Ross, Andrew. “Hacking Away at the Counterculture.” In *Technoculture*, edited by Constance Penley and Andrew Ross, 107–34. Minneapolis: University of Minnesota Press, 1991.
123. Ruberg, Bonnie. “No Fun: The Queer Potential of Video Games that Annoy, Anger, Disappoint, Sadden, and Hurt.” *QED: A Journal in LGBTQ Worldmaking* 2, no. 2 (Summer 2015): 108–24. Accessed October 1, 2016. doi:10.1353/qed.2015.0034.
124. Ruberg, Bonnie and Adrienne Shaw, eds. *Queer Game Studies: Gender, Sexuality, and a Queer Approach to Game Studies*. Minneapolis: University of Minnesota Press, 2017.
125. Rubin, Gayle. “Thinking Sex: Notes for a Radical Theory of the Politics of Sexuality.” In *Deviations: A Gayle Rubin Reader*, edited by Gayle Rubin, 137–81. Durham, NC: Duke University Press, 2011.
126. Malkowsky, Jennifer and TreaAndrea Russworm, eds. *Identity Matters: Race, Sexuality, and Gender in Video Games*. Indianapolis: Indiana University Press, 2017.
127. Schaefer, Eric. “*Bold! Daring! Shocking! True!*”: *A History of Exploitation Films, 1919–1959*. Durham, NC: Duke University Press, 1999.
128. Serano, Julia. *Whipping Girl: A Transsexual Woman on Sexism and the Scapegoating of Femininity*. Emeryville, CA: Seal Press, 2007.
129. Shapiro, Eve. *Gender Circuits: Bodies and Identities in a Technological Age*. New York: Routledge, 2010.
130. Shaviro, Steven. *The Cinematic Body*. Minneapolis: University of Minnesota Press, 1993.
131. Shaw, Adrienne. *Gaming at the Edge: Sexuality and Gender at the Margins of Gamer Culture*. Minneapolis: University of Minnesota Press, 2014.
132. Shinkle, Eugénie. “Video Games, Emotion, and the Six Senses,” *Media Culture & Society* 30 (2008): 907–15.
133. Sihvonen, Tanja. *Players Unleashed!: Modding the Sims and the Culture of Gaming*. Amsterdam: Amsterdam University Press, 2011.

134. Smith, Clarissa and Feona Attwood. "Emotional Truths and Thrilling Slide Shows: The Resurgence of Antiporn Feminism." In *The Feminist Porn Book: The Politics of Producing Pleasure*, edited by Tristan Taormino, Celine Parreñas Shimizu, Constance Penley, and Mireille Miller-Young, 41–57. New York: The Feminist Press, 2013.
135. Sobchack, Vivian. *Carnal Thoughts: Embodiment and Moving Image Culture*. Berkeley: University of California Press, 2004.
136. Spigel, Lynn. *Make Room for TV: Television and the Family Ideal in Postwar America*. Chicago: University of Chicago Press, 1992.
137. Spigel, Lynn. *Welcome to the Dreamhouse: Popular Media and Postwar Suburbs*. Durham, NC: Duke University Press, 2001.
138. Stone, Allucquère Rosanne. *The War of Desire and Technology at the Close of the Mechanical Age* [1995]. Cambridge, MA: MIT Press, 2001.
139. Strain, Ellen. "Virtual VR." *Convergence: The International Journal of Research Into New Media Technologies* 5, no. 2 (June 1999): 10–15.
140. Streeter, Thomas. *The Net Effect: Romanticism, Capitalism, and the Internet*. New York: NYU Press, 2010.
141. Swalwell, Melanie. "Movement and Kinaesthetic Responsiveness: A Neglected Pleasure." In *The Pleasures of Computer Games: Essays on Cultural History, Theory and Aesthetics*, edited by Melanie Swalwell and Jason Wilson, 72–93. Jefferson, NC: McFarland, 2008.
142. Turkle, Sherry. *Alone Together: Why We Expect More from Technology and Less from Each Other*. New York: Basic Books, 2011.
143. Valentine, David. *Imagining Transgender: An Ethnography of a Category*. Durham, NC: Duke University Press, 2007.
144. Volcano, Del LaGrace and Ulrika Dahl. *Femmes of Power: Exploding Queer Femininities*. London: Serpent's Tail, 2008.
145. Wark, McKenzie. *Gamer Theory*. Cambridge, MA: Harvard University Press, 2007.
146. Waters, John. *Crackpot! The Obsessions of John Waters*. New York: Scribner, 2003.
147. Weiss, Margot. *Techniques of Pleasure: BDSM and the Circuits of Sexuality*. Durham, NC: Duke University Press, 2011. Kindle Edition.

148. Weinstein, Noah and Randy Sarafan. "The Joydick." In *Of Intercourse and Intracourse: Sexuality, Biomodification, and the Techno-Social Sphere*, edited by Johannes Grenzfurthner, Guenther Friesinger, and Daniel Fabry, 136–49. Vienna: RE/SEARCH, 2011.
149. Wexman, Virginia Wright, ed. *Film and Authorship*. New Brunswick, NJ: Rutgers University Press, 2003.
150. Wilcox, Steve. "Videogames and Empathy: Towards a Post-Normative Ludic Century." *First Person Scholar*, July 30, 2014. Accessed October 1, 2016. <http://www.firstpersonscholar.com/videogames-and-empathy/>.
151. Williams, Linda. "Film Bodies: Gender, Genre, and Excess." *Film Quarterly* 44, no. 4 (Summer 1991): 2–13.
152. Wolf, Mark J. P. "Video Game Genres," in *The Video Game Explosion: A History from PONG to PlayStation and Beyond*, edited by Mark J. P. Wolf, 259–74. Westport, CT: Greenwood Press, 2008.
153. Yang, Robert. "Notes on Sex, Consent, and Intimacy in Games." *Radiator Design Blog*, December 27, 2014. Accessed October 1, 2016. <http://www.blog.radiator.debacl.us/2014/12/notes-on-sex-consent-and-intimacy-in.html>.
154. Youngblood, Gene. *Expanded Cinema*. New York: E. P. Dutton & Co., 1970.
155. Zimmerman, Eric and Heather Chaplin. "Manifesto: The 21st Century Will Be Defined By Games." *Kotaku*, September 9, 2013. Accessed October 1, 2016. <http://kotaku.com/manifesto-the-21st-century-will-be-defined-by-games-1275355204>.