

From Synthespian to Convergence Character: Reframing the Digital Human
in Contemporary Hollywood Cinema

by

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Abstract

This dissertation examines the changing role of the digital human in Hollywood cinema. Performing close analyses of a series of CGI-driven blockbusters, their promotional materials and reception, and their ancillary media spin-offs, I trace the transition from the notion of the digital actor or “synthespian” as a replacement for the “real” actor to that of the digital character as a transformative avatar for the both the human performer and the spectator-consumer. Although the synthespian was meant to embody the radical break between “old” and “new” media supposedly wrought by the rise of digital imaging processes, I contend that the digital human instead ultimately demonstrates how newer and more traditional media forms necessarily influence and remediate one another in the industrial context of media conglomeration and convergence, wherein Hollywood films and their characters are increasingly viewed as but one facet of much larger and longer-lasting media franchises.

Even though their early promotional materials and academic reception suppressed their connection to traditional media, digital humans draw upon “real” bodies, mechanical interventions, and analogue recording processes associated with live-action cinema and drawn animation. Meanwhile, more recent instantiations of the digital human feature extratextual and diegetic strategies that strive to emphasize the overwhelming convergence of cinema and digital game characters, positioning the former as seamlessly translatable into the latter. I argue that the digital human’s shifting presentation and reception has

been informed by conglomerate-owned studios seeking to cultivate “interactive” spectator-consumers who actively engage with all iterations of a digital character.

As a result, I argue, the perceived “unease” that the digital human evokes may have much more to do with the complex ways in which these figures blur media boundaries than it does their embodiment of a distinctive “break” between modes of representation. The uncomfortable reception of the digital human persists with its reframing from synthespian to convergence character, but shifts such that spectator-consumers once uneasy at the prospect of new media replacing old media become uncomfortable with convergence-era attempts to level all distinctions between media forms and their occupants.

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CHAPTER ONE

Introduction: Reframing the digital human

In the fall of 2000, the PBS program *Nova* issued a dire warning to the human race. Despite the millions of years of natural selection and technological advancement we had on our side, it was time to clear some space at the top of the evolutionary ladder: the synthespians were coming, and anything we could do, they could do better. At very least, new digital imaging technologies were “poised to revolutionize moviemaking with a new species that doesn’t require an astronomical salary, works around the clock without complaint, and lives quietly on a hard drive between death-defying stunts.”¹ As the often-stated “Holy Grail” of the Hollywood digital effects industry, by the start of the twenty-first century, this quest for a “new species” of photorealistic digital actor was defined by the explicit goal of rendering the “old” species of real actors obsolete.² Whether this Grail was possible or even desirable was another matter entirely. Naturally, real actors protested their projected trip to the scrapheap, while filmgoers were uneasy at the prospect of the decidedly human craft of acting being taken over by digital replicants.³

¹ Kelly Tyler, “Virtual Humans,” NOVA Online, November, 2000, accessed May 12, 2012, <http://www.pbs.org/wgbh/nova/specialfx2/humans.html>.

² See, for example, Daniel Barnes, “Attack of the Synthespians,” *Sacramento News and Review*, October 5, 2000, accessed May 5, 2012, <http://www.newsreview.com/sacramento/attack-of-the-synthespians/content?oid=2647>.

³ See, for example, Tom Brook, “Final Fantasy stirs star nightmares,” *BBC News Online*, July 11, 2001, accessed May 5, 2012, <http://news.bbc.co.uk/>

More than a decade later, it's safe to say that the Invasion of the Digital Body Snatchers didn't proceed as planned. Flesh and blood stars continue to collect Oscar statues, while the digital humans who now populate Hollywood cinema tend to be understood primarily in relation to their human operators, the "real" actors who pilot these figures through the interface of motion or "performance" capture technology. ("Jim Carrey *is* Scrooge," announced the advertising for Disney's computer-generated revival of *A Christmas Carol* [Robert Zemeckis, 2009] even though Carrey only appeared on screen via the bodily movements and facial expressions that drove his digital stand-in.)⁴ They are also increasingly understood as digital characters who may, in turn, be operated and controlled by the spectator-consumer via their reincarnation in a range of interactive media, including handheld, PC, and console-based video games, persistent virtual worlds, and machinima.

This dissertation examines the changing role of the digital human in Hollywood cinema. Performing close analyses of the CGI-driven blockbusters *Final Fantasy: The Spirits Within* (Hironobu Sakaguchi, 2001), *The Lord of the Rings: The Two Towers* (Peter Jackson, 2002), *The Polar Express* (Robert Zemeckis, 2004) and *Beowulf* (Robert Zemeckis, 2007), their promotional materials and reception, and their ancillary media spin-offs, I trace the transition from the notion of the digital actor or "synthespian" as a replacement for the "real" actor to that of the digital character as a transformative avatar for the

2/hi/entertainment/1433493.stm.

⁴ See, for example, the theatrical trailer for *A Christmas Carol*, posted September 15, 2009, <http://www.youtube.com/watch?v=VZ3lr3urgDU>.

human star, and in some cases, by extension, the spectator-consumer. Although the synthespian was meant to embody the radical break between “old” and “new” media supposedly wrought by the rise of digital imaging processes, I contend that the digital human instead ultimately demonstrates how newer and more traditional media forms necessarily influence and remediate one another. As Lisa Bode asserts, our reception of the animated human — digital or otherwise — is always historically contingent, and must be understood within a larger framework of what it means to be human within broader cultural and technological systems at the time.⁵ I therefore consider the digital human within the broader industrial and technological context that produces it: that of media conglomeration and convergence, wherein Hollywood films and their characters are increasingly viewed as but one facet of much larger and longer-lasting media franchises. I examine the transformation of the digital human as one of the many ways in which animation, cinema, digital games and their respective consumers intersect in the age of media convergence. I situate this altered construction and reception within a larger shift from cultural anxiety in the face of newly pervasive digital technology towards a reception grounded (albeit somewhat unevenly) in user literacy and agency. In so doing, this study explores what it means to be human — both as an animated figure on screen, and a spectator-consumer of that animated figure — within our increasingly converged digital media landscape.

⁵ Lisa Bode, “From Shadow Citizens to Teflon Stars: Reception of the Transfiguring Effects of New Moving Image Technologies,” *Animation: an Interdisciplinary Journal* 1, no. 2 (2006), 179.

Convergence once signified the strictly technological notion of different media functions “converging” in a single device. Recent scholarship has broadened the definition to include the concentration of media conglomerate ownership across formerly distinct industries,⁶ the synergistic flow of content or “intellectual property” across multiple media platforms,⁷ the sharing of talent and technology between media,⁸ and the converged formal and narrative qualities of media content resulting from all of these developments.⁹ Although convergence has come to be understood as a complex, multifaceted phenomenon with far-reaching effects on media production and consumption, there has been surprisingly little attention paid to its impact on how we create and consume media characters. This dissertation will take up this expanded conception of convergence in order to explore its far-reaching impact on the construction and reception of the digital human. It will pay particular attention to the synergistic logic of transmedia storytelling, which, according to Henry Jenkins’s influential definition, is a narrative that “unfolds across multiple media platforms, with

⁶ See, for example, Edward Jay Epstein, *The Big Picture: Money and Power in Hollywood* (New York: Random House, 2005).

⁷ See, for example, Angela Ndaljian, *Neo-Baroque Aesthetics and Contemporary Entertainment* (Cambridge, Mass: MIT Press, 2005); Chuck Tryon, *Reinventing Cinema: Movies in the Age of Media Convergence* (New Brunswick, New Jersey; London: Rutgers University Press, 2009).

⁸ See, for example, Robert Alan Brookey, *Hollywood Gamers: Digital Convergence in the Film and Video Game Industries* (Bloomington: Indiana University Press, 2010); Casey O’Donnell, “Games are not convergence: The lost promise of digital production and convergence,” *Convergence* Vol. 17 No. 3 (August 2011): 271-286.

⁹ See, for example, Jay David Bolter and Richard Grusin, *Remediation: Understanding New Media* (Cambridge, Mass.: MIT Press, 1999); Barry Ip, “Technological, Content and Market Convergence in the Games Industry,” *Games and Culture* Vol. 3 No. 2 (April 2008): 199-224.

each new text making a distinct and valuable contribution to the whole.”¹⁰ In the optimal form of transmedia storytelling, according to Jenkins, multiple media texts (including, but not limited to, feature films, animated shorts, digital games, persistent virtual worlds and graphic novels) provide unique-but-interconnected contributions to a larger franchise storyworld, which fans ideally consume exhaustively in order to optimize their experience.¹¹ As media producers embrace transmedia storytelling as a means of organizing a franchise in the age of media conglomeration and convergence, fictional characters must increasingly anchor media franchises through starring roles in films, games, and other ancillary properties designed to expand the franchise and extend its revenues, a development that has considerable implications for the construction and reception of the digital human.¹²

Specifically, this study closely considers the shifting relationship between the animated human image, the “real” bodies and bodily interventions of the

¹⁰ Henry Jenkins, *Convergence Culture: Where Old and New Media Collide* (New York: New York University Press, 2006), 95-96.

¹¹ Jenkins, *Convergence Culture*, 93-130.

¹² Indeed, transmedia storytelling has become such an industry commonplace that in 2010 the Producer’s Guild of America added “Transmedia Producer” to its official list of credits, defining the role as “the person(s) responsible for a significant portion of a project’s long-term planning, development, production, and/or maintenance of narrative continuity across multiple platforms, and creation of original storylines for new platforms. Transmedia producers also create and implement interactive endeavors to unite the audience of the property with the canonical narrative and this element should be considered as valid qualification for credit as long as they are related directly to the narrative presentation of a project.” See Scott Macauley. “PGA: Transmedia Producers Have Arrived,” *Filmmaker Magazine*, April 6, 2010, accessed October 5, 2012, <http://www.filmmakermagazine.com/news/2010/04/pga-transmedia-producers-have-arrived/>.

actors, animators, and consumers who create and operate them, and their primarily digital or digitally-augmented diegeses. How does this changing relationship reflect the imbrication of these figures and their spectator-consumers within the broader context of media convergence? I examine how the human performances and analogue technologies essential to the allegedly synthetic, new-media synthespian were initially suppressed in their promotional materials and journalistic reception, which instead foregrounded the innovative digital imaging processes involved in their creation. This suppression was reinforced by a scrutinizing, “hyperbolic” mode of address in relation to the synthespian’s surface photorealism. I will consider how these extratextual and diegetic strategies strive to sever all ties between “new” and “old” media, an effort that had decidedly uneasy consequences for the spectator-consumer of the digital human figure.

Similarly, much of the reframing of the digital human as a creative extension of the human actor took place within the extratextual materials that surrounded my chosen films, materials that foregrounded the involvement of the “real” actor as the user-operator of a cinematic digital avatar. This reconfiguration was also diegetically reinforced by the immersive mode of address typical of these films, which sought to pull the viewer into elaborate digital storyworlds that could be explored even further through a range of interactive ancillary media designed to expand and cross-promote them. I examine how these subsequent films seek, albeit not always successfully, to level the distinctions between newly “digital” cinema characters and the

occupants of other digital media forms, most notably the medium of the digital game. As a result, I argue, these films and their characters problematize the radical scenario wherein “new” digital media supplant traditional media. Instead, they illustrate how media convergence is currently defined by a relationship of mutual influence that Jay David Bolter and Richard Grusin have termed “remediation.” Bolter and Grusin suggest that

[n]o medium today, and certainly no single media event, seems to do its cultural work in isolation from other media, any more than it works in isolation from other social and economic forces. *What is new about new media comes from the particular way in which they refashion older media and the ways in which older media refashion themselves to answer the challenges of new media.*¹³

While necessarily multifaceted and shifting in relation to my objects of study, my theoretical framework is grounded in this concept of remediation as a dual logic wherein new media must always be understood in relation to how they emulate and re-purpose existing media forms. In turn, older media forms must respond, both formally and narratively, to the challenges posed by newer media. This approach necessarily acknowledges the historicity, hybridity and industrial specificity of so-called “new” media, redressing some of the more alarmist approaches to digital technology, wherein a prevailing discourse of “replacement” precludes more productive considerations of mutual influence. Remediation will be crucial to establishing the dialogic relationship I posit between animation, cinema, and digital games. It also provides a useful heuristic

¹³ Bolter and Grusin, *Remediation*. 5. Emphasis mine.

for understanding that much of the perceived unease that the digital human evokes may have much more to do with the complex ways in which these figures blur media boundaries than it does their embodiment of a distinctive break between modes of representation. As we'll see, the uncomfortable reception of the digital human doesn't disappear with its reframing from synthespian to convergence character. Instead, it undergoes a transformation wherein spectator-consumers once uneasy with the prospect of new media replacing old media challenge convergence-era attempts to level all distinctions between media forms and their occupants.

This project therefore treats the digital human as exemplary of the blurring boundaries between once-distinct media forms in the digital age, and a case study in how spectator-consumers must navigate between these increasingly converged forms. The shifting presentation and reception of these figures demonstrates how live-action cinema, animation, and video games increasingly influence and remediate one another in terms of character construction, mode of address, and promotional strategies. At the same time, the digital human points up the various ways in which this convergence is not so seamless as the most idealistic industry and academic discourse would suggest, demonstrating how “what it means to be human” in the industrial and technological framework of media convergence must be re-thought. Rather than undergoing a radical transformation from body-as-flesh to body-as-information, the digital human and the spectator-consumer it addresses are now situated in a complex web of overlapping digital media products and consumption protocols, their active

agency enabled in some ways and curtailed in others.

Parameters

Although the cross-media interests of this project will necessitate considering characters with their origins in drawn animation and video games, my primary object of study will be digital human characters with “starring” roles in feature-length films. Cinema provides a rich origin point for a discussion of the implications of digital characters within the contemporary mediascape, since it is a medium in many ways defined by a constant push-pull between the formal possibilities opened up by technical innovation and a commitment to established, coherent conventions of continuity editing and classical narrative. My most in-depth case studies will examine films featuring “realistic” human or human-like characters in predominantly computer-generated environments — specifically, *Final Fantasy* (Hironobu Sakaguchi, 2001), *The Lord of the Rings: The Two Towers* (Peter Jackson, 2002), *The Polar Express* (Robert Zemeckis, 2004) and *Beowulf* (Robert Zemeckis, 2007).

While recognizing that these films are in many ways exceptional in relation to the general output of Hollywood, I contend that it is precisely this exceptionality that allows a focused consideration of the ways in which digital characters are currently both blurring and retrenching media boundaries. Due to their sizable investment in innovative computer imaging technologies, their transmedia origins and imperatives, and the vast quantity of promotional and reception materials surrounding them, these films are the most high profile test

cases of the complex ways in which animation, live-action cinema and video games are coalescing, and putting new demands on consumer-spectators in the process. They are also situated within a compressed period of technological, cultural and industrial change that merits closer examination. Understood against the backdrop of the enhanced possibilities and ubiquity of computer imaging technology in cinema, the maturation of video games as a representational medium, and the widespread consolidation and conglomeration within the film and game industries, the need to focus my study around a narrow “time slice” of films becomes clear.

In part because of the sizable cult of personality built up around the cinema star as an idealized embodiment of human agency and subjectivity,¹⁴ I suggest that these figures also function as one of the most visible and widely-debated representations of the constantly shifting boundaries between human and machinic agency within our contemporary information age. The decided unease that has marked the reception of photoreal digital humans within both the mainstream media and academia distinguishes them from more plasmatic or “cartoony” CG characters that populate such acclaimed Pixar features as the *Toy Story* films (John Lasseter, 1995, 1999, 2010), *Finding Nemo* (Andrew Stanton,

¹⁴ Despite being first published in the late 70s, Richard Dyer’s *Stars* (London: BFI, 1998) still provides one of the most influential book-length examinations of the star phenomenon, while more recently a series of edited anthologies have approached the analysis of contemporary Hollywood stars from a range of theoretical perspectives. See, for example, Thomas Austin and Martin Barker, eds. *Contemporary Hollywood Stardom* (London; New York: Oxford University Press, 2003); Anna Everett, ed., *Pretty People: Movie Stars of the 1990s* (New Brunswick, NJ: Rutgers University Press, 2012); Lucy Fisher and Marcia Landy, eds., *Stars: The Film Reader* (New York: Routledge, 2004).

2003) and *The Incredibles* (Brad Bird, 2004), as well as the more painterly digital characters featured in Richard Linklater's rotoscoped films *Waking Life* (2001) and *A Scanner Darkly* (2005). Meanwhile, the hunched, wretched once-human figure of Gollum in Peter Jackson's *Lord of the Rings* trilogy, discussed in Chapter 3, illustrates the perceptual and conceptual challenges posed by a figure that blurs the boundaries between accepted codes of photorealistic "human" representation and those associated with more fantastical, plasmatic bodies.

This project acknowledges the significant role of the director in shaping the construction and reception of the digital human, especially through promotional and supplementary interviews that guide spectator-consumer engagement with the animated figure on screen. While the creators of the synthespian-era digital human minimized the involvement of real actors in order to emphasize the computer wizardry that would supposedly signal their replacement, more recently directors like Peter Jackson, Robert Zemeckis and James Cameron have touted digital technology as a means of extending the range and abilities of the human performer. This study recognizes the importance of the director's interventions upon the discursive formations surrounding the digital human, but ultimately prioritizes the various performances that are directly involved in the creation of the digital human image, the bodies and faces that, while not always acknowledged, are currently crucial to any digital performance we see on screen. As Murray Smith contends, our engagement with cinema depends on our recognition of screen characters as

analogues of human agency.¹⁵ As such, cinema characters and the actors who play them bear the considerable weight of being the primary means through which spectators identify with and become engrossed in fictional worlds. Since digital imaging technologies are now widely viewed as being capable of simulating almost everything else with an acceptable degree of photorealism, the actor, and the star in particular, also provide one of the last remaining vestiges of the importance of the real-world referent to what “counts” as cinema. The indexical, photographically-recorded image of the star body has therefore become a privileged site to be mined for traces of physical, emotional, and intellectual authenticity, and its perceived absence and/or reconfiguration has been central to the uneasy reception of the digital human.

Beyond the uncanny valley: Mapping the existing literature

Within film and animation studies, as well as the bulk of industrial and mainstream media discourse on the subject, digital human characters have been analyzed primarily for the uncomfortable viewer reactions they prompt. This discomfort is often expressed (at times, reductively) through the trope of the “uncanny.” Perhaps most notoriously, the perceived problem of “the uncanny valley” defines much of the recent technical and journalistic writing on the digital human. First coined by Japanese roboticist Masahiro Mori in 1970, the “uncanny valley” describes a phenomenon wherein, the more closely robots replicate human appearance, the more our perceptual apparatuses hone in on the

¹⁵ Murray Smith, *Engaging Characters: Fiction, Emotion and the Cinema*. (Oxford; New York: Oxford University Press, 1995), 25.

tiny differences that render them “other” and strange. Specifically, Mori observed that as robots come to look more human, they seem more familiar (and thus, more pleasing) to their observers, until a point of familiarity is reached at which even the most subtle deviations from human norms produce a discomfiting reaction in their human observer. He termed this dip in familiarity and corresponding surge in strangeness the uncanny valley. In Mori’s words:

Climbing a mountain is an example of a function that does not increase continuously: a person’s altitude does not always increase as the distance from the summit decreases owing to the intervening hills and valleys. I have noticed that, as robots appear more humanlike, our sense of their familiarity increases until we come to a valley. I call this relation the “uncanny valley.”¹⁶

The quest for photorealism within digital character animation has breathed new life into the uncanny valley as a cultural trope, bringing with it a particularly compelling — but ultimately problematic — construction of the spectator as innately tuned to detect any deviation from what makes us fundamentally “human,” however vaguely and ahistorically defined that humanity may be.

As Ed Catmull, the pioneering computer animator who co-founded Pixar Animation Studios, observed in 2000,

The human face is a unique problem We are genetically programmed to recognize human faces. We’re so good that most people aren’t even aware of it while they think about it. It turns out, for instance, that if we make a perfectly symmetrical face, we see it as being wrong. So we want things to be not quite perfect, have a lot of subtlety, but if they’re too imperfect, then we think that they’re strange.¹⁷

¹⁶ Masahiro Mori, “They Uncanny Valley,” *Energy* 1970 7(4): 33-35, translated by Karl F. MacDorman and Takashi Minato.

¹⁷ Ed Catmull, quoted in “Virtual Humans.”

Or, as director Joseph McGinty Nichol (aka McG) opined somewhat less eloquently in 2008, “I don’t find synthetic characters to be all that satisfying. I think human beings have spent so long watching other human beings that it bums you out if it’s not real.”¹⁸ Yet if the history of moving image reception has taught us anything, it’s that our uncertainty about the animated human — and what we tend to find “uncanny” about the animated human image — doesn’t tend to last for long. As this project will demonstrate, the ongoing reception of the digital human must be understood as a moving target, informed both by the viewer’s broader understanding of its means of production, as well as his or her own, constantly evolving relationship to new digital technologies.

Existing scholarship on digital humans has struggled to provide an adequately nuanced account of this ever-shifting relationship. Early writing on the figure of the synthespian largely failed to acknowledge its own historical specificity, inflected though it was by broader anxiety over the far-reaching implications of digital technology. As will be discussed further in Chapter 2, rather than challenging or interrogating the stated industrial goal of flawlessly simulating a human actor via computer imaging technologies, the first wave of academic writing on the digital human tended to take the inevitability of this achievement as a given. Such analyses tended to presume the radical newness

¹⁸ Dorothy Pomerantz, “A Star is Reborn: How Hollywood Magicians Will Raise the Dead,” *Forbes*, March 15, 2010, accessed August 20, 2012, <http://www.forbes.com/forbes/2010/0315/entertainment-hollywood-cameron-movies-star-reborn.html>.

and innovation of the digital actor as a complete ontological break from previous methods of depicting and animating the human form. Speculation centred on the figure of the synthespian or “cyberstar” as a kind of autonomous, binary code replacement for the human star, rather than a means of extending his or her creative abilities. For example, Barbara Creed mobilized a Lacanian psychoanalytic framework to call into question whether viewers could achieve identification with a figure who hadn't undergone the “offscreen” trials and tribulations of lived experience, and as such, lacked an unconscious.¹⁹ Mary Flanagan, meanwhile, explored the hopeful possibilities for a cinematic cyberstar freed from any tangible obligation to an age, appearance, and gender-marked body and subjectivity — although, in looking to the heavily stereotyped examples provided by female video game characters and the cyberstars of Japanese pop culture, she ultimately found very little to get excited about.²⁰

As Chapter 2 addresses, early academic writing on synthespians accepted and even perpetuated the “information narrative” (to borrow Katherine Hayles’s term) put forth by their promotional materials, eliding the digital human’s material origins to depict it instead as a disembodied information pattern functioning autonomously within computer space.²¹ This preliminary synthespian literature fixated upon the seemingly rootless ontology of the human

¹⁹ Barbara Creed, “The Cyberstar: Digital pleasure and the end of the unconscious,” *Screen* 41:1 (Spring 2000): 80.

²⁰ Mary Flanagan, “Mobile Identities, Digital Stars, and Post-Cinematic Selves,” *Wide Angle* 21.1 (1999): 77-93.

²¹ N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago and London: The University of Chicago Press, 1996).

form once liberated from the photo-indexical recording of the lived body. Freed from any apparent obligation to a real-world referent, the synthespian was viewed as transcending human limitations, but in so doing, its critics claimed, it also relinquished any claims to human authenticity.²² By privileging the link between analogue recording processes and human authenticity, early synthespian scholarship articulated a not-so-latent anxiety over the fate and future of media production and consumption in the digital age. Much of this anxiety was displaced onto the narrative of synthespians replacing real actors, a displacement that failed to acknowledge how the digital human is as much an allegory of media change as it is one of altered human (or posthuman) subjectivity.

For all the preliminary anxiety about the threat of bodily dissolution and “old media” replacement posed by the digital human, subsequent analyses of these figures have complicated this information narrative, recognizing these figures as necessary intersections between real bodies and digital technologies. More recent scholarly studies have sought to understand digital human characters as the site wherein real bodies and digital images — and indeed, “old” and “new” media — collude and collide in many, often troubling, ways.

In one strand of this literature, the goal of human simulation and animation, and our frequently uneasy spectatorial reactions to it, are understood

²² See, for example, Ollivier Dyens, *Metal and Flesh: The Evolution of Man: Technology Takes Over*, trans. Evan J. Bibbey (Cambridge, Mass.: MIT Press, 2001); Brian Winston, *Claiming the Real: Documentary Film Revisited*. (London: British Film Institute, 1995); Paul Willemen, “Of Mice and Men: Reflections on Digital Imagery,” *292: Essays in Digital Culture*, 1 (2000): 5-20.

instead as recurrent tropes that long pre-date the digital age. Rather than an unprecedented break from previous modes of representation, the digital human is contextualized in relation to pre-existing phenomena that have also articulated the unsteady boundary between both human and machinic agency specific to the creation and reception of these figures. Dan North observes the antecedents of what he terms “virtual actors” in nineteenth-century mechanical automata, arguing that the same types of spectacular strategies and ontological questions are in play with both figures — namely, whether the human body might be superceded or replaced by its artificial counterpart.²³ Lisa Bode, Tom Gunning, and Friedrich Kittler observed a similar unease surrounding the figure of the filmed human actor at the dawn of the twentieth century, as both an uncanny “double” and seemingly mechanized stand-in for the lived performer and the human spectator.²⁴ Joanna Bouldin, Mark Langer, and Yacov Freeman have looked to hand-drawn animated characters and the technological mediations that bring together real and animated bodies as a means of understanding the digital human, likening motion capture in computer animation to the use and reception of the rotoscope in drawn animation.²⁵ As will be discussed further in Chapter 2,

²³ Dan North, “From Android to Synthespian: The Performance of Artificial Life,” in *Multimedia Histories: From the Magic Lantern to the Internet*, eds. J. Lyons and J. Plunkett (Exeter: University of Exeter, 2007), 85-97.

²⁴ See, for example, Bode, “From Shadow Citizens;” Tom Gunning, “Phantom Images and Modern Manifestations: Spirit Photography, Magic Theatre, and Photography’s Uncanny,” in *Fugitive Images: From Photography to Video*, ed. Patrice Petro (Bloomington and Indianapolis: Indiana University Press, 1995), 42-71; Friedrich Kittler, “Romanticism-Psychoanalysis Film: A History of the Double,” in *Literature, Media, Information Systems*, ed. John Johnston (Amsterdam: Overseas Publishers Association, 1997), 85-100.

²⁵ See Joanna Bouldin, “Cadaver of the Real: Animation, Rotoscoping and the

the specter of the Freudian uncanny haunts these more recent studies of the digital human, which tend to attribute their uneasy reception to their liminal position between live-action and animation, and their differing codes for visual appearance and physical movement.²⁶

In a subsequent book-length study, North draws continuities between the contemporary presentation and reception of the virtual actor and the contemporaneous presentation and reception of the nineteenth-century magic theatre, arguing that in the case of magic theatre

inquisitive, critically engaged and discerning responses to the new media technologies were fostered in part by the promotion of access to ‘inside’ information, the ‘backstage’ information that equipped spectators with a grounding in the formal and mechanical properties of the apparatus and gave them the critical tools to compare, contrast and distinguish between the various filmic practices with which they were being presented.²⁷

North thus proposes “a way of reading special effects as spectacular moments which demand the complicity of the viewer in the illusion,” wherein “managing

Politics of the Body,” *Animation Journal* 12 (2004): 7-31; Mark Langer, “The Rotoscope, The Double, and the Uncanny” (paper presented at the ARC Animated ‘Worlds’ Conference, Farnham, UK, July 10-11th, 2003); Yacov Freeman, “Is It Real . . . or Is It Motion Capture?: The Battle to Redefine Animation in the Age of Digital Performance,” *The Velvet Light Trap* 69 (2012): 38-49.

²⁶ See Vivian Sobchack, “Final Fantasies: Computer Graphic Animation and the (Dis) Illusion of Life,” in *Animated Worlds*, ed. Suzanne Buchan (Bloomington: Indiana University Press, 2006), 171-182; Mark Langer, “The Rotoscope, Freakery and the Uncanny” (paper presented at the annual Society for Animation Studies Conference, Glendale, California, September 26-29, 2002); Livia Monnet, “A-Life and the Uncanny in *Final Fantasy: The Spirits Within*,” *Science Fiction Studies* 31, No. 1 (2004): 97-121.

²⁷ Dan North, *Performing Illusions: Cinema, Special Effects and the Virtual Actor* (London and New York: Wallflower, 2008), 25.

the doubts, expectations and perceptions of the viewer is the task of all the techniques that regulate the viewer's knowledge of an illusion.²⁸ North's focus on the conceptual continuities between digital and pre-digital cinematic illusions allows him to challenge what he deems "the deterministic, teleological discourses which circulate around special effects," an endeavour I take up and expand in the context of this project.²⁹ However, unlike this scholarship, which focuses primarily on earlier media, I seek to contextualize the figure of the digital human in relation to both its "old" and "new" media influences.

Thus far, academic work on the relationship between the digital human and so-called new media hasn't satisfactorily addressed the industrial imperatives informing the digital human's creation. While Sydney Eve Matrix interrogates the technophobic "replacement" discourse surrounding the synthespian in order to investigate the way these figures narrativize how digital technology has fundamentally transformed human subjectivity, she elides any consideration of how this transformation has been informed by the changing patterns and protocols of convergence-era media consumption.³⁰ William Brown's analysis of *Beowulf* as a "digital monster movie" acknowledges the film's status as part of a "converged" franchise with multiple release windows and ancillary media spin-offs. Yet Brown opts to exclude *Beowulf*'s industrial

²⁸ North, *Performing Illusions*, 26.

²⁹ Dan North, "Performing Illusions: Cinema, Special Effects and the Virtual Actor," (blog post), March 18, 2010, accessed August 15, 2012. <http://drnorth.wordpress.com/2010/03/18/performing-illusions-cinema-special-effects-and-the-virtual-actor/>.

³⁰ Sydney Eve Matrix, "We're Okay with Fake': Cybercinematography and the Spectre of Virtual Actors in SIMONE," *Animation: An Interdisciplinary Journal* Vol. 1, No. 2 (November 2006): 207-228.

origins from his analysis of the film's digital humans as "monstrous" when read through Henri Bergson's work on monstrosity and judged according to Mori's theory of the uncanny valley.³¹ Brown seeks to assess whether *Beowulf's* digital humans cross into the uncanny valley, rather than using their broader technological and industrial context to theorize how our understanding of what we find unsettling about the animated human figure is always in a state of flux.

In her analysis of "the figure of the artificial actor in its past, present, and possible future incarnations," Anna Notaro asserts that these figures and the films they occupy currently

testify to a digital culture that operates in a 'convergence mode': the convergence of filmmaking, animation & game development; of art and technology and popular culture; of art and science It is not surprising then that different disciplines also converge in trying to provide an answer to some of the most pressing questions that humanity has ever faced: what happens to our bodies and our identities in a (post-human) digital age? How do we define truth in the midst of codes and copies? How can we distinguish between the authentic and the synthetic? Cinema, itself an elaborate system for synthetic representation, is contributing to the debate in the way it knows best: by creating stories that speak to our innermost fears and desires.³²

For Notaro, "convergence" means the confluence of formerly disparate media forms in the figure of the digital human, and the concomitant convergence of

³¹ William Brown, "Beowulf: The Digital Monster Movie," *Animation* Vol. 4 No. 2 (2009): 154.

³² Anna Notaro, "Reality is in the Performance: Issues of Digital Technology, Simulation and Artificial Acting in S1m0ne," *Refractory: A Journal of Entertainment Media* Vol. 15 (2009), accessed June 20, 2012, <http://refractory.unimelb.edu.au/2009/06/25/reality-is-in-the-performance-issues-of-digital-technology-simulation-and-artificial-acting-in-s1mone-%E2%80%93-anna-notaro/>.

academic disciplines required to theorize this shift. As a result, Notaro argues, spectators have begun to similarly operate in convergence mode:

Dissatisfied with just looking at the conventional stars within the filmic world, we now wish to embrace the very real pleasure of controlling these desired bodies through playing/interacting with them, being in a video game, or by receiving a direct customized service of sorts.³³

Although Notaro identifies the cross-media influences informing both the creation and reception of the digital human, she stops short of examining what is at stake when these figures operate in “true” convergence mode, according to the multifaceted industrial, technological and economic demands of media conglomeration and convergence. Rather than analyzing a film or corpus of films bound to the transmedia imperatives of a conglomerate-owned franchise, Notaro focuses on *Slm0ne*, Andrew Niccol’s 2002 live-action film that used real actors to satirize the outcome of a Hollywood taken over by synthespians. Ultimately, “since fully interactive, lifelike digital humans are still far from coming on the scene,” Notaro retreats from an exploration of the possibilities and limitations of the “convergence-mode” digital human.³⁴ Instead, she argues (somewhat vaguely) that spectators still find digital humans uncanny because, at present, “real” actors are still so tightly bound to their audience through emotional empathy.³⁵

Similarly, Jonathan Burston acknowledges the convergence between cinematic and gamic performance through the figure of the “journeyman”

³³ Notaro, “Reality is in the Performance.”

³⁴ Notaro, “Reality is in the Performance.”

³⁵ Notaro, “Reality is in the Performance.”

motion-captured actor who may work in both cinema and interactive media, reading this type of performance through Marx as a kind of alienated labour because of the erasure of the actual actor from the filmic diegesis.³⁶ In contending that motion-captured acting (and the associated absence of the actor's photo-indexical image) prevents the kind of actor-audience cross-identification necessary for unalienated actorly labour, Burston reverts back to Creed's insistence on the photographic body-as-guarantor of authenticity. In so doing, he forecloses the consideration of how this reconfigured relationship between actorly bodies and digital stand-ins might open up new possibilities for spectator-consumer that aren't strictly bound to the codes and conventions of cinematic identification.

According to Bode, the contemporaneous technological framework "staining" the reception of the synthespian-era digital human is that of cybernetics. Citing Marshall McLuhan's theory of auto-amputation, whereby the pervasive use of computer "prostheses" prompts us to retreat ever-inward, Bode contends that anxiety over the perceived "numbed" expressions of the synthebian reveal broader cultural anxieties over the numbed, inward state of human subjectivity in the age of ubiquitous computing technologies.³⁷ In so doing, Bode identifies one of the most compelling reception narratives in the brief history of the digital human — a narrative that is particularly pronounced prior to and following the release of *Final Fantasy: The Spirits Within* —

³⁶ Jonathan Burston, "Synthespians Among Us: Rethinking the actor in media work and media theory," in *Media and Cultural Theory*, eds. James Curran and David Morley (London; New York: Routledge, 2006): 250-262.

³⁷ Bode, "From Shadow Citizens to Teflon Stars," 183-184.

whereby computers are viewed as inhibiting or even supplanting “authentic” human subjectivity. However, as this project moves towards a detailed consideration of more recent films, it demonstrates how the broader technological framework that informs our relationship with the digital human can also be conceived as one of empowerment and *extension* of human agency. That this empowerment is unevenly distributed amongst consumer-spectators under media convergence may, in fact, be one of the greatest sources of public unease in relation to the digital human. As we’ll see, this convergence framework also produces unrealistic expectations for the “ease” of transmediation of the same media property across different platforms and the resulting possibilities for user intervention upon these still-disparate media forms.

In order to adequately contextualize this shifting presentation and reception of the digital human, this project builds and expands upon a strong tradition of recent scholarship examining the complex ways in which media are coalescing and converging against a backdrop of widespread industry conglomeration and technological change. Henry Jenkins theorizes convergence culture as a space wherein newer and more established media necessarily intersect and influence (rather than threaten or displace) one another, and spectator-consumers must actively navigate and negotiate these intersections in order to optimize their entertainment experience.³⁸ In an era wherein Hollywood filmmaking is inexorably bound to the industrial desires, technological

³⁸ Henry Jenkins, *Convergence Culture*, 1-32.

opportunities, and marketing strategies of the global media conglomerates which now own the six major film studios, I contend that our understanding of digital characters, the storyworlds they inhabit, and the spectators they address must be considerably redefined.³⁹ For all that recent studies such as Jenkins's have fruitfully analysed the impact of media convergence upon film form, narrative, and spectatorship, there has been decidedly less consideration of its impact upon character. For example, in his recent book *Reinventing Cinema: Movies in the Age of Media Convergence* (2009), Chuck Tryon examines the impact of what he broadly defines as convergence-era "digital cinema" (which includes DVDs, digital effects, digital projection, and internet distribution) on spectator-consumer subjectivity and agency.⁴⁰ Yet, Tryon elides any specific consideration of the role of digital humans — as the clearest embodiment of that subjectivity/agency — in the process, just as he neglects the considerable influence of interactive digital games upon so-called "digital" cinema. And while Stephen Keane (2007) thoroughly explores the convergence of cinema and interactive digital media, he neglects to extend this analysis to the crucial question of character.⁴¹

Within digital game studies, meanwhile, characters tend to be analyzed for the ways in which they are distinct from, rather than similar to, their cinematic

³⁹ At the time of writing, the six major film studios and their media conglomerate owners were as follows: Warner Bros. (owned by Time Warner), Paramount (Viacom), Disney (The Walt Disney Company), Universal (General Electric) and Sony Pictures (Sony Corporation).

⁴⁰ Tryon, *Reinventing Cinema*, 1-15.

⁴¹ Stephen Keane, *CineTech: Film, Convergence and New Media* (Basingstoke, England; New York: Palgrave Macmillan, 2007).

counterparts in terms of identification, character development, and modes of address and alignment.⁴² This emphasis upon difference over continuity between media forms can be understood as part of an evolving discipline's ongoing efforts to define its object of study as a rule-based system distinct from narrative-driven, non-interactive media.⁴³ However, it also prevents the productive consideration of their areas of mutual influence, especially given the fact that, after more than a decade of video games attempting to emulate certain aspects of cinematic character construction and presentation, cinema now seems to be taking many of its cues from video games, often in the hopes of encouraging the consumption of an intellectual property across various media platforms. Such an approach also elides the increasingly intertwined nature of the production practices of games and films, which mean that these mutual influences are no accident, but rather part of a shared cultural and economic logic.

In our contemporary moment, how are different media forms converging in terms of character construction and presentation? How much of this convergence is directly motivated by a film's transmedia imperatives, and how

⁴² See, for example, Katherine Isbister, *Better Game Characters by Design: A Psychological Approach* (San Francisco: Kaufmann, 2006); Andrew Burn, "Playing Roles," in *Computer Games: Text, Narrative and Play*, eds. Diane Carr, David Buckingham, Andrew Burn, Gareth Schott (Cambridge, UK; Malden, MA: Polity Press, 2006), 72-87.

⁴³ See, for example, Jesper Juul, *Half-real: Video Games Between Real Rules and Fictional Worlds* (Cambridge, London: MIT Press, 2007); Ian Bogost, *Persuasive Games* (Cambridge, Mass.: MIT Press, 2007); Alexander Galloway, *Gaming: Essays on Algorithmic Culture* (Minneapolis: University of Minnesota Press, 2006).

much of it indicates the intertwined nature of digital media generally, and of cinema and digital games in particular? Can characters be “translated” across media platforms as seamlessly as digital backdrops, props, and visual effects? What formal, narrative and promotional strategies are used to encourage this translation? What happens to our conception of the human star, the animated character and the film spectator in the process? This dissertation provides some preliminary answers to these questions, which have yet to be satisfactorily addressed in the existing scholarship on media convergence, digital animation, and contemporary Hollywood cinema.

The digital human in the age of “software”

The “second wave” of media conglomeration that began in the 1980s and continues to this day has situated film studios and their products? within highly-concentrated, networked corporate structures wherein, to turn a profit, film texts must not only flow through a vertically reintegrated chain of production, distribution, and exhibition windows, but also through a horizontally integrated series of other synergistic media platforms, either owned by the corporate parent or licensed to a partner company for significant revenue. This corporate structure maximizes profits by creating intellectual property that can be licensed in other media over long period of time, both in the subsequent release windows and in complimentary transmedia tie-ins. As will be discussed more fully in Chapter 3, this industrial shift from the creation of “film” to that of “filmed entertainment” has fundamentally transformed the way we make and consume cinema. As

Stephen Prince has argued, “Before there was cinema. Now, and in the future, there is software.”⁴⁴

This shift towards the prioritization of free-flowing intellectual property and “software” over stand-alone film texts has given way to an unprecedented level of hybridity between cinema and digital games. Since video game revenues now consistently exceed annual box office earnings, the film text itself no longer solely occupies the top of the IP hierarchy, generating ancillary spin-offs of books, toys, and video games.⁴⁵ Video games are now quite commonly the primary text that gives way to the cinematic spin-off, as exemplified by the *Tomb Raider* and *Resident Evil* film franchises, as well as the recent battles between studios to secure the film adaptation rights to the overwhelmingly popular video game franchises *Gears of War* (Epic Games, 2006, 2008, 2011) and *Assassin’s Creed* (Ubisoft, 2007, 2009, 2012).⁴⁶ Furthermore, since film and video games represent two of the primary forms wherein computer-generated imagery is both produced and consumed, their research and development processes have become steadily more intertwined, a fact that has had formal and narrative repercussions for both media forms. High-profile film directors such as George Lucas and Steven Spielberg collaborate with developers in the creation of games; successful game developers are hired as Hollywood screenwriters;

⁴⁴ Stephen Prince, *A New Pot of Gold Under the Electronic Rainbow: 1980-1989* (New York: C. Scribners, 2000), 89.

⁴⁵ See, for example, Elaine Dutka, “Hollywood caught up in the game,” *Los Angeles Times*, May 10, 2005.

⁴⁶ See, for example, Marc Graser and Jeff Sneider, “Sony Targets Assassin’s Creed for Bigscreen,” *Variety.com*, October 20, 2011, accessed June 12, 2012, <http://www.variety.com/article/VR1118044759>.

digital sets and “backlots” are developed for dual use in both movies and video games; and the motion capture techniques used to create video game characters are modified and elaborated for the sake of creating increasingly realistic digital film characters.⁴⁷

As I’ve documented elsewhere, recent CGI-driven Hollywood blockbusters appear increasingly intent on foregrounding their “playful” capacities and game-like techniques.⁴⁸ Prolonged subjective, “embodied” sequences that align viewers with the fluid, “first-person” explorations of a “virtual” camera have become a recurrent visual trope within everything from science fiction films (*The Matrix*, Andy Wachowski and Lana Wachowski, 1999) to children’s fantasy fare (*Harry Potter and The Goblet of Fire*, Mike Newell, 2005; *How to Train Your Dragon*, Dean DeBlois and Chris Sanders, 2010) to the disaster film (*The Day After Tomorrow*, Roland Emmerich, 2004). Such films often feature episodic, multi-level narratives that alternate between exposition and intense, often highly subjective action sequences. In a risk-averse climate in which fewer and more expensive films are made, the blockbuster film franchise increasingly favours pre-sold origins, readily extractable characters, easily “serialized” and “sequelized” narratives that translate readily to a global

⁴⁷ The increasing interpenetration of the two forms is highly evident in popular games such as *Grand Theft Auto IV: Liberty City* (Rockstar Games, 2008) and *Rainbow Six: Vegas* (Ubisoft, 2006), which feature increasingly cinematic animation sequences or “cut scenes” that, both visually and narratively, are almost indistinguishable from comparable scenes in Hollywood action or sci-fi films.

⁴⁸ Jessica Aldred, “All Aboard *The Polar Express*: A ‘Playful’ Change of Address in the Computer-Generated Blockbuster,” *Animation: An Interdisciplinary Journal* 1:2 (November, 2006): 153-172.

audience, and exhaustively realized, digitally rendered storyworlds in which one could just as easily insert a video game as a movie plot. As Angela Ndalianis observes, cinema and video games — and the various intersections between them — exemplify the broader condition of contemporary entertainment forms, wherein “media merge with media, genres unite to produce new hybrid forms, (and) narratives open up and extend into new spatial and serial configurations.”⁴⁹ Any sustained consideration of the digital human character must necessarily acknowledge this hybridity. Ultimately, I argue, one of the greatest challenges digital humans may pose to the contemporary consumer/spectator is the way in which they are increasingly constructed (both formally and extratextually) as a kind of cross-media intellectual property or “convergence characters.”

This new hybridity has not been sufficiently taken up by existing approaches. Within film studies, analyses of the CGI-driven blockbuster tend to fixate instead upon a reductive “narrative vs. spectacle” debate over whether digital imagery and characters are either subordinate to or in excess of so-called “classical” Hollywood narrative and visual grammar. While Kristen Thompson, Geoff King, David Bordwell, Shilo McClean and others have argued for the persistence of a classical, integrative narrative and mode of address within the most visually innovative blockbuster films,⁵⁰ other scholars have argued that

⁴⁹ Angela Ndalianis, *Neo-Baroque Aesthetics and Contemporary Entertainment* (Cambridge, London: MIT Press, 2004), 2-3.

⁵⁰ See, for example, Kristin Thompson, *Storytelling in the New Hollywood: Understanding Classical Narrative Technique* (Cambridge, MA: Harvard University Press, 1999); Geoff King, *Spectacular Narratives: Hollywood in the Age of the Blockbuster* (London, New York: IB Tauris, 2000); David Bordwell, *The Way Hollywood Tells It: Story and Style in Modern Movies* (Berkeley and

CGI-driven films belong to a kind of latter-day “cinema of attractions” that reverts to cinema’s earliest spectacle tradition.⁵¹ However, this theorization of the contemporary spectator as oscillating between a state of belief in and decipherment of the digital image does little to historicize and contextualize that spectator according to the complex web of digital media in which she is now situated as both addressee and active participant. Understood thusly, this spectator may be better understood not only for her connoisseurship of the cinematic digital image, but also for her mastery when it comes to navigating and negotiating computer-generated spaces and characters within interactive digital media forms.

Even those scholars who acknowledge that contemporary spectatorship and human perception more generally have been shaped by digital media consumption tend to presume a problematically passive and somewhat monolithic spectator. While Scott Bukatman and Vivian Sobchack employ phenomenological approaches to argue that that we have been radically remade by the perceptive, expressive technologies of electronic media, both tend to universalize the outcome for the spectator/consumer. Sobchack writes of a transition from the embodied fluidity and representation/replication of human

Los Angeles: University of California Press, 2006); Shilo McClean, *Digital Storytelling: The Narrative Power of Visual Effects in Film* (Cambridge, MA: MIT Press, 2007).

⁵¹ See, for example, Andrew Darley, *Visual Digital Culture: Surface Play and Spectacle in New Media Genres* (London: Routledge, 2000); Tom Gunning, “The Cinema of Attractions: Early Film, Its Spectator and the Avant-Garde,” *Early Cinema: Space, Narrative, Frame*, ed. Thomas Elsaesser (London: BFI, 1990), 56-62.

vision staged by cinema to the disembodied/disembodying “flatness” of electronic media. Bukatman claims precisely the opposite, arguing that a hyperbolic focus on “spatial penetration and kinetic achievement” re-assures a spectator/consumer who fears the irrelevance of her embodied subjectivity within the increasingly ephemeral datascares of contemporary culture.⁵² Problematically, these studies elide any sustained consideration of how these fundamentally “remade” modes of address function in relation to character identification and alignment. As my case studies demonstrate, this is an increasingly malleable concept in the context of computer-generated cinema. While the existing scholarship on the convergence between films and games provides a thorough consideration of how each medium addresses and constructs a storyworld for its spectator/consumer this literature pays considerably less attention to *who* it aligns them with and how.⁵³

Contrary to recent scholarly claims for the enduring flexibility and longevity of classical Hollywood norms of story and style in the face of profound industrial and technological upheaval, digital human characters are one of the most visible examples of the changing discursive qualities of contemporary Hollywood cinema and how it addresses and constructs prospective spectator-consumers. By focusing my study on the digital character rather than subsuming a consideration of characters under a broader study of

⁵² See Vivian Sobchack, *Carnal Thoughts: Embodiment and Moving Image Culture* (Berkeley and Los Angeles, CA: University of California Press, 2004); Scott Bukatman, *Matters of Gravity: Special Effects and Supermen in the 20th Century* (Durham; London: Duke University Press, 2003).

⁵³ See, for example, Bolter and Grusin, *Remediation*; Galloway, *Gaming*; Aldred, “All Aboard The Polar Express.”

cinema in the age of media convergence, I tell one of the most complicated and yet under-theorized stories within both cinema and digital media studies. Not only is the human body/image one of the most contested and anxiety-producing figures within academic debates about the presumed loss of cinematic indexicality in the digital age, but the different ways in which we engage and interact with human characters remains one of the major salient distinctions between media forms. These figures and their reception articulate larger concerns about what it means to be human within the broader technological and industrial system of digital culture, and how these concerns —particularly surrounding what constitutes proper engagement with a given media form — can undergo notable changes even in the span of a single decade.

Building on a growing body of media convergence scholarship, I argue that an analysis of digital human characters as fundamentally “remediated” must also acknowledge how they may be “transmediated.” I expand the work of Henry Jenkins, Angela Ndalianis, Jonathan Gray, and Richard Grusin on the new transmedia seriality of convergence-era media forms to consider how this transmediation may impact the ways in which digital characters are promoted, depicted on screen, and received by spectator-consumers. Jenkins describes transmedia storytelling in terms remarkably similar to those used by media conglomerates to describe synergy: although each media incarnation (film, video game, animated short, graphic novel, etc.) may be consumed as a stand-alone text, one enriches their overall narrative experience by consuming them in

relation to one another.⁵⁴ By this formulation, transmedia storytelling is the art of world building, not the practice of merely fragmenting a film into a series of competing media priorities and then stamping a splashy product logo across the attendant ancillary markets. Transmedia franchises call upon spectator-consumers to be active hunter-gatherers of narrative information across various media platforms, making connections and interventions that would be impossible by prioritizing a single, stand-alone film. Within cinema, this spectatorial “call to attention” and action tends to be reinforced by the film’s visual grammar and aesthetics — specifically, by collapsing the frame that separates spectator from spectacle, and by the illusionistic use of computer-generated imagery and special effects that are frequently repurposed and repeated within their video game incarnation. As Grusin argues, cinema must now be understood as a “distributed artifact,” with its polycentric narrative(s) and new openness to intervention/manipulation demanding that spectators actively engage with it as a “cinema of interactions.”⁵⁵ This dissertation considers the constantly shifting role of the digital human within this increasingly transmediated cinema of interactions.

Chapter Two examines the “synthespian” phase of the digital human for how it personifies anxiety over the changing nature of human engagement with so-called “new” digital media. By examining early synthespian history

⁵⁴ Jenkins, *Convergence Culture*, 93-130.

⁵⁵ Richard Grusin, “DVDs, Videogames, and the Cinema of Interactions,” in *Multimedia Histories: From the Magic Lantern to the Internet*, eds. James Lyons and John Plunkett (Exeter: University of Exeter Press, 2007), 209-221.

(including certain early attempts at creating digital humans, their attendant promotional materials, and the first wave of academic “synthespian studies” that surrounded them) this chapter considers how the largely speculative narrative of digital humans replacing real actors parallels a similarly alarmist narrative of how new digital media will “kill” and subsume older media forms. As the chapters that follow demonstrate, the problem with this notion of new media killing and replacing old media is that it fails to acknowledge how, in our contemporary context of pervasive media convergence, newer and more traditional media forms must actually reinforce and mutually influence each other.

This chapter performs a close examination of *Final Fantasy*, its digital star Aki Ross, and the notion of “the synthespian,” using the film as an illustrative example of the ever-shifting relationship between the real body of the actor and/or animator, the drawn, filmed, or digitally-animated image, and the reception of the spectator-consumer. It interrogates the pervasive discourse of “replacement” surrounding the digital actor, suggesting that what was truly unsettling about the synthespian was not that it succeeded in replacing the human actor, but rather that it claimed to do so while relying on a multiplicity of human bodies and analogue technical interventions associated with the traditional media forms of live-action cinema and drawn animation. I demonstrate how Aki and her digital co-stars bore the residual baggage of the ways in which the human body and the animated image coalesce in drawn animation, despite the best attempts of its creators to suppress this connection,

eliding or minimizing the various contributions of motion-capture actors, vocal performers, and animators. This unease is exacerbated by the film's mode of address, which privileges highly scrutinizing close-ups of its digital stars. I also acknowledge the insistence of Square Pictures and Aki's developers upon confining her to the realm of cinema, eschewing *Final Fantasy's* origins as a successful video game franchise and the opportunity to create a cast of transmediated digital characters.

Chapter Three investigates several significant industrial factors shaping the shifting reception of the digital human over the past decade, setting the stage for the analysis of these figures that follows in subsequent chapters. It provides a brief overview of the formation of contemporary Conglomerate Hollywood in the second wave of media conglomeration that began in the nineteen-eighties and continues to this day. I then closely examine the proliferation of technician and "how-to" discourses surrounding digital imaging technologies and consumption practices embedded in Conglomerate Hollywood's preferred means of cinema distribution and promotion, focusing mainly on DVDs and their expansive supplementary materials. Using Peter Jackson's *Lord of the Rings* trilogy as my primary case study, I argue that the careful extratextual management of the digital human's actorly origins helps transform it a figure that is exhaustively evaluated, understood, and, at times, even masterfully operated by the spectator-consumer. I consider how DVDs facilitate an "interactive" mode of repeat consumption that encourages newly knowledgeable and empowered viewing formations in relation to the digital human. In

particular, I examine how the prevailing extratextual narrative of actor Andy Serkis mastering and even influencing the digital technology used to create the hybrid performance of Gollum parallels that of the interactive, convergence-era consumer mastering the processes and protocols of vertically and horizontally integrated digital media consumption. However, just as Serkis's digital stardom hasn't granted him full access to his choice of starring roles, so too must the active or interactive consumer accept the limitations of her empowerment. By claiming to place the consumer in control of newly pervasive digital technologies and media, these discourses encourage a specific kind of engagement geared towards the exhaustive consumption of the all facets of, and character iterations within, a given franchise.

Chapter Four will consider the increasingly pervasive notion of the digital human-as-avatar within video games and virtual worlds for how it influences the construction and reception of more recent cinematic instances of the digital human. I begin the chapter by surveying the myriad debates that surround the gamer-avatar relationship, countering the restrictive approach of certain recent game studies definitions to advocate for the utility of considering *avatar* as an inclusive trope that can't be confined to the context of a single game genre. Instead, I advocate for a definition that extends beyond the boundaries of interactive digital worlds and into broader considerations of transmedia franchises and their consumers. With this broader definition of the avatar in mind, this chapter analyzes *The Polar Express* for the high profile way in which it sought to reconfigure the relationship between actor, digital character

and computer-generated story space. I will consider the film's extensive promotional campaign for how it foregrounded star Tom Hanks and his connection to/mobilization of performance capture technology, and how this technology allowed him to "operate" a diversity of digital characters.

To complicate claims that Hanks's involvement was simply a means of re-establishing a more naturalized relationship between "real" human star, character, and spectator, I compare Hanks's discussion of his performance process and the freedom it granted him to play a range of transformative characters to the discourse of bodily liberation and supernatural agency that has been widely mobilized by dedicated gamers in relation to their digital avatars. I also survey the proliferation of online responses to the film and its characters for what they reveal about increasingly discerning spectator knowledge communities formulating in relation to contemporary digital human characters.

This chapter also considers the realignment of the actor/character relationship for how it operates in conjunction with the film's episodic, video-game-like narrative and highly immersive mode of address, which repeatedly plunges its characters (and, by extension, its viewers) into immersive, stomach-lurching thrill rides and dizzying explorations of the film's digital diegesis. In so doing, I argue, *The Polar Express* seeks to address those spectators familiar with the visual grammar and modes of character construction and alignment found in such games, at the same time as it points more generally to the increasingly hybridized nature of contemporary media forms. The film's often excessive remediation of the embodied, perceptually immersive mode of address

mobilized within certain games elucidates the remaining, crucial differences between the way we engage with cinema and video game characters. More broadly, this chapter examines *The Polar Express* and its characters for what they reveal about the narrative and technological demands of media convergence — specifically, the somewhat schizophrenic transmedia obligations of corporate parent Time Warner, who released it simultaneously as a conventional theatrical feature, a 3D IMAX feature, a PlayStation 2, Nintendo GameCube, Nintendo Gameboy Advance and PC game (Blue Tongue Entertainment Ltd., 2004), as well as a re-issue of the Chris Van Allsburg children’s book on which it is based.

Chapter Five investigates what is at stake when digital humans become transmedia “convergence characters,” compelled by the synergistic imperatives and overlapping industrial and technological practices of their conglomerate owners to anchor media franchises through starring roles in films, games, and other ancillary media. I examine how convergence characters have supplanted the prevailing “science fictional” narrative of flawless digital synthespians replacing human actors with an equally powerful narrative wherein digital characters extend human agency within and across media platforms. Fueled by the insistence of media producers that the technological convergence of cinema and games has enabled seamless cross-media character translation, this latter narrative elides the mixed reception of transmedia characters, discussed at length using the *Beowulf* franchise as the primary case study. This chapter problematizes the master narrative of technological convergence as the key to successfully converged content, further developing the previous chapter’s

argument that human characters remain one area wherein the distinctions among media forms are still keenly felt. I begin with a closer examination of early movie-licensed video game characters that demonstrates how the abstraction of early video game characters made necessary by the technical limitations of gaming consoles at the time may have actually helped ease certain challenges of cross-media character identification. I propose that abstraction helps movie-licensed game characters bear the hefty baggage of being avatars twice over — that of their cinematic selves, and that of the player operating them. In examining these earlier forays into movie-game convergence, I hope to further contextualize my analysis of the digital human at the same time as I problematize some of the more hyperbolic narratives surrounding digitization as the key to creating successful transmedia characters.

I then examine *Beowulf* for how its status as a transmedia franchise influences the way spectators engage with its digital protagonist (voice and motion capture acting provided by Ray Winstone). I consider how the franchise sought to court the type of active consumer intervention and modification more readily associated with intellectual property that originates as a video game. I consider how *Beowulf*'s diegetic and promotional strategies encouraged viewers to explore the film's CG storyworld further, aligning them with Beowulf as a digital avatar in the other media forms Paramount designed to expand and cross-promote the *Beowulf* universe. While each text and each version of Beowulf seemed poised to make a unique contribution to the *Beowulf* storyworld, the franchise's insistent blurring of the distinctions between these characters and

their digital worlds created a problematic series of redundancies and excesses.

Through the figure of the digital human, this dissertation challenges totalizing claims for the radical newness of new digital media, at the same time as it problematizes more idealized forecasts for seamless character transmediation in the age of media convergence. In so doing, it establishes an analytical framework with future utility for the study of transmedia convergence characters, wherein the notion of digital characters flowing seamlessly (and profitably) across media platforms is replaced with a nuanced account of the remaining obstacles to such translation.

CHAPTER TWO

“She’s Lovely, But Alas, Only Software”: The synthespian as the (not quite) human face of “new” digital media

The synthespian, an artificially-created “human” actor, is the Hollywood Screen Actor’s Guild’s nightmare. He hasn’t quite arrived yet. But the word is he’s on his way. For the suits in the movie industry it’s not so much a case of cutting out the middle man; it’s cutting out the main man. Altogether.¹

Prior to the summer of 2001 release of *Final Fantasy: The Spirits Within* (Hironobu Sakaguchi), nervous stars and journalists alike speculated that digital actors or “synthespians” could come to replace real, flesh-and-blood Hollywood talent. With star salaries on the rise and the threat of a Screen Actor’s Guild strike looming at the time of the film’s release, the computer-generated cast of *Final Fantasy* seemed to present an all-too-tempting alternative to conventional star performers. Alarmist headlines such as “Movie Stars Fear Inroads By Upstart Digital Actors”² and “Digital Actors Could Replace Hollywood Stars”³ announced the expected takeover. Such articles often featured close-up “photographs” of *Final Fantasy*’s female star, Aki Ross, which foregrounded — and almost dared reader-viewers to find fault with — her eerily pseudo-realistic surface details, including

¹ Allan Laing, “Not what you think,” *The Herald*, December 26, 2001, 12.

² Rick Lyman, “Movie Stars Fear Inroads By Upstart Digital Actors,” *The New York Times*, July 8, 2001, accessed May 20, 2012, <http://www.nytimes.com/2001/07/08/us/movie-stars-fear-inroads-by-upstart-digital-actors.html?pagewanted=all&src=pm>.

³ Hugh Dougherty, “Digital Actors Could Replace Hollywood Stars, says Hanks,” *Press Association News*, July 8, 2001.

painstakingly rendered hair, skin, and eyes. Meanwhile, the prospect of a Hollywood populated only by cyberstars was deemed unsettling at best: “I am very troubled by it,” fretted superstar Tom Hanks at the time. “But it’s coming down, man. It’s going to happen. And I’m not sure what actors can do about it.”⁴

Just three years later, the two-time Oscar winner once again was at the forefront of the digital actor debate, but appeared to have switched teams. Dressed in a black cap and jumpsuit, his face and body studded with hundreds of reflective dots, Hanks’s image now appeared alongside that of one of the digital characters he was playing in the computer-generated blockbuster *The Polar Express*. With nearly identical bodily positions and facial expressions, but somewhat altered in external physical appearance, this odd couple typically was paired with an article in which Hanks and director Robert Zemeckis praised the utopian possibilities of “performance capture” technology.⁵ This updated form of motion capture allowed the actor’s body and face to “drive” the actions of a digital stand-in or avatar performing on his or her behalf in the film’s computer-generated storyworld — or, in Hanks’s case, multiple avatars who careen from one “thrill-ride” like adventure to another, pulling the viewer along with them via prolonged, immersive “first-person” perspectives. Viewers who wanted a little more control over these

⁴ Dougherty, “Digital Actors.”

⁵ See, for example, Dave Kehr, “A Face That Launched a Thousand Chips,” *The New York Times*, October 24, 2004, Section AR: 1, 11; Rebecca Murray, “Tom Hanks and Robert Zemeckis Discuss ‘The Polar Express,’” *About.com Hollywood Movies*, November 7, 2004, accessed July 6, 2011, <http://movies.about.com/od/thepolarexpress/a/polartm110704.htm>.

adventures could take the reins from Hanks through a GameCube or PlayStation 2 controller, steering their own, somewhat lower-resolution versions of Hanks's characters through the detailed digital spaces of *The Polar Express* console game.

For all that this shift suggests a linear *telos* from rejection to acceptance of the digital human, in tandem with a larger shift from cultural anxiety in the face of newly pervasive digital technology towards a reception grounded in user literacy and agency, this dissertation contends that the reality has been decidedly more complicated. As Lisa Bode asserts, the shifting presentation and reception of the digital human is a product of its specific historical context and circumstances, and is inexorably “‘stained’ by the subjective response of the writer, as well as the various cultural and institutional factors that come to bear on the process of writing.”⁶ As subsequent chapters document, films released in the decade since *Final Fantasy* continue to struggle to reconcile the excessive effects of their digital human characters. In *Final Fantasy*, this struggle played out around the uncomfortable realism of its characters and the perceived threat they posed to “real” human actors and, by extension, to the indexical ontology of cinema. These figures also pointed towards a future wherein the established media consumption protocols of cinema as a bounded, stand-alone medium would undergo significant transformation. The subsequent films I consider grapple with the spectacle of digital media convergence, and the challenges of putting forth characters and

⁶ Bode, “From Shadow Citizens,” 181.

spaces designed to be ported across media platforms in a growing climate of transmedia consumption and connoisseurship. Ultimately, all of the films I consider and their digital human occupants demonstrate how the boundaries between once distinct media forms have become irretrievably blurred in the digital age, creating new challenges for spectator-consumers in the process.

This chapter examines the “synthespian” phase of the digital human for how it personifies anxiety over the changing nature of human engagement with so-called “new” digital media. I consider early synthespian history, including certain early attempts at creating digital humans, their attendant promotional materials, and the first wave of academic “synthespian studies” that surrounded them. In so doing, I demonstrate how the largely speculative narrative that digital humans would replace real actors parallels a similarly alarmist narrative of how new digital media will subsume older media forms. The chapter concludes with a close analysis of the promotional materials, diegetic strategies, and critical reception of *Final Fantasy: The Spirits Within*. How this film represents these anxieties, as well as a marked turning point in the presentation and reception of the digital human, will be explored. As the chapters that follow demonstrate, the problem with this notion of new media replacing old media is that it fails to acknowledge how, in our contemporary context of pervasive media convergence, newer and more traditional media forms must actually reinforce and remediate each other. Following Bolter and Grusin’s theory of remediation, “new” media must always be understood for how they emulate and re-purpose existing media forms, which reciprocally

must respond, both in form and narrative, to the challenges posed by newer media.⁷ As Henry Jenkins argues, convergence culture is a space wherein “old and new media collide,” not one wherein the new tidily replaces the old.⁸ Despite its creators’ attempts to suppress *Final Fantasy*’s reliance on the technologies and techniques of traditional media, including drawn animation and live action cinema, these older media forms haunt the film, as well as the largely uneasy reception of its characters. Furthermore, by eliding any connection to the video game franchise on which it is based, *Final Fantasy* clings to a decidedly “old” media model of cinema as primary, standalone text without franchise-driven transmedia obligations. Subsequent films featuring digital humans reframe the relationship between “real” actor and digital character at the same time that they highlight the growing intersections between cinema and video games. In so doing, these films demonstrate how the convergence-era collision between old and new media is not without its tensions. However, it is typically an active, savvy and increasingly demanding consumer who navigates this media landscape, rather than a passive, naïve or threatened one.

⁷ Bolter and Grusin, *Remediation*, 15.

⁸ Jenkins, *Convergence Culture*, 2.

“Digital Humans Wait in the Wings”⁹: The synthespian as information narrative

Computer-generated (actors) . . . are replacing people in movies, TV shows, advertisements, and on the Web. Many of them are so lifelike, so unlike the exaggerations of cartoon or game figures, a casual observer could easily mistake them for human. As the technology continues to advance, it will become even harder to tell the difference.¹⁰

Beginning in the late 1980s and reaching its peak with the 2001 release of *Final Fantasy: The Spirits Within*, a combination of heated debate, speculation, and prognostication swirled around the presumed imminence of wholly computer-generated, autonomous digital actors. As Jenkins observed, the quest for a totally photoreal digital actor during this period became a new kind of Turing test by which computer modelers and AI specialists honed and measured their skills, “working towards what they see as the inevitable moment when a synthetic character can appear alongside a human actor and leave people scratching their heads trying to decide which is which.”¹¹ And just as the hypothetical computer in Alan Turing’s now-famous scenario was to herald the arrival of truly “intelligent” machines by fooling its examiner into thinking it human, so too was the synthespian-era digital human intended

⁹ This headline from a prominent *Scientific American* article authored by Alvy Ray Smith, accomplished digital photographer and co-founder of the pioneering digital animation firm Pixar, is illustrative of how synthespians were allegedly poised to takeover at the start of the twenty-first century. Alvy Ray Smith, “Digital Humans Wait in the Wings,” *Scientific American*, November 2000, 72-78.

¹⁰ Peter Howell, “Synthespians get ready for their close-up,” *The Toronto Star*, July 7, 2002.

¹¹ Henry Jenkins, “Celluloid Heroes Evolve,” *Technology Review*, April 4, 2003, accessed June 15, 2012, <http://www.technologyreview.com/news/401886/celluloid-heroes-evolve/>.

to mark the coming of wholly digital, machinic performances believable enough that “a casual observer could easily mistake them for human.”¹²

Within mainstream media and industry discourse alike, the quest for believable synthespian performances was repeatedly referred to as the “holy grail” of the digital effects industry, and indeed, even Hollywood itself.¹³

Once achieved, the logic followed, “real” actors faced obsolescence or, at the very least, serious competition from their computer-generated counterparts.

Dan North describes the synthespian in this early period of its popular and critical reception as “a quasi-mythological concept, imagining the usurpation of the human actor by a pliant, mutable, and tireless digital stand-in.”¹⁴ Fueling this mythology was a series of interim accomplishments that seemed to point to the inevitability of a digital human takeover: the computer-generated extras that plummeted convincingly to their doom in *Titanic* (James Cameron, 1997), for example, or the digital stunt doubles who imperceptibly subbed for such stars as Tom Cruise and Will Smith in their most perilous action blockbuster moments. A slightly macabre elaboration of this practice allowed stars Brandon Lee (*The Crow*, Alex Proyas, 1994) and Oliver Reed

¹² Howell, “Synthespians get ready.”

¹³ See, for example, Yardena Arar, “Hollywood Constructs a High-Tech Future,” *The Oklahoma City Journal-Record*, March 18, 1995; Robin Clewley, “Animation: That’s Not All, Folks.” *Wired*, March 16, 2001, accessed September 12, 2008, <http://www.wired.com/culture/lifestyle/news/2001/03/42340>; Brad Lemley, “Virtual You,” *Discover Magazine*, July 1, 2001, accessed September 12, 2008, <http://discovermagazine.com/2001/jul/featvirtual>.

¹⁴ Dan North, “From Android to Synthespian: The Performance of Artificial Life,” in *Multimedia Histories: From the Magic Lantern to the Internet*, eds. James Lyons and John Plunkett (University of Exeter, 2007), 87-88.

(*Gladiator*, Ridley Scott, 2000) to complete their final film performances posthumously, their computer-generated visages attached to the bodies of stunt doubles in their unfinished scenes. Meanwhile, no fewer than three different teams of computer animators sought to resurrect Marilyn Monroe (Fig. 1) in the form of a wholly-digital doppelganger.¹⁵



Fig. 1: MIRALab's Virtual Marilyn

As Kevin Fisher observed, the seamless digital morphing of the liquid-metal T-1000 into an endless array of human forms in *Terminator 2: Judgment Day* (James Cameron, 1991) allegorized the seemingly limitless potential for CGI to simulate anyone and anything, with decidedly disastrous

¹⁵ MIRALab's Virtual Marilyn project, which originated at the University of Geneva in 1989, was the earliest attempt to re-create the doomed actress, followed the respective efforts of London-based Createc and entrepreneur Scott Billups in the late 90s. See, for example, Peter Howell, "Virtual Marilyn struts her stuff," *The Toronto Star*, May 10, 2000; Jim Giles, "Science-Marilyn Lives!" *The Independent*, August 20, 1999.

consequences for those who can't tell the difference between the "real" and the copy.¹⁶ Prior to the release of *Final Fantasy*, Brooks Landon speculated that the growing prominence of digital humans within Hollywood cinema seemed to suggest "a fast-approaching degree of synthetic agency for synthespians or virtual humans that should itself be thought of as a science fiction phenomenon."¹⁷

Coined by animators Diana Walczak and Jeff Kleiser to describe the protagonist of their 1988 computer-generated short *Nestor Sextone for President*, even the name "synthespian" speaks volumes. Photoreal but not "real," "lifelike" but not living, the material underpinnings of the digital actor were suppressed in both the promotional materials and academic discourses surrounding them in favour of promoting the impression that these figures were entirely constructed in computer space. Apparently liberated from any

¹⁶ Kevin Fisher, "Tracing the Tesseract: A Conceptual Pre-history of the Morph," *Meta-morphing: Visual Transformation and the Culture of Quick-Change*, ed. Vivian Sobchack (Minneapolis and London: University of Minnesota Press, 2000), 103-130. As W. J. T. Mitchell has argued along similar lines, "[t]he contrast between the mechanical and biocybernetic model is vividly illustrated by the 'new model' cyborg of Arnold Schwarzenegger's *Terminator 2*. Schwarzenegger plays the role of a traditional robot, a mechanical assembly of gears, pulleys, and pistons driven by a computer brain and the most advanced servo-motors. He is faced, however, with a new model terminator composed of 'living metal,' a shape-shifting chimera that is a universal mimic, capable of taking on any identity. By the end of this film, we are prepared to be nostalgic for the good old days of mechanical men who could express regret for their inability to cry, and to feel horror at the new figure of infinite mutability and mutation, remorselessly pursuing the extinction of the human species." W.J.T. Mitchell, "The Work of Art in the Age of Biocybernetic Reproduction," *Modernism/Modernity* Vol. 10(3): 486.

¹⁷ Brooks Landon, "Synthespians, Virtual Humans, and Hypermedia: Emerging Contours of Post-SF-Film," in *Edging Into the Future: Science Fiction and Contemporary Cultural Transformation*, eds. Veronica Hollinger and Joan Gordon (University of Pennsylvania Press, 2002), 57.

reliance on either the human body *or* the cinematic apparatus, during this preliminary phase of its presentation and reception the synthespian was viewed as eschewing human limitation at the same time that it relinquished any claims to human authenticity. This is evident, for example, in Ollivier Dyens's assertion that, "once digitized, the image of a human being is released from its origin and can transform itself into a multitude of landscapes; it becomes a system unimpeded by any conceptual limits."¹⁸ Understood this way, the synthespian body *seemed* complimentary to some of the most idealized beliefs within the contemporaneous literature surrounding virtual reality and cyberspace: specifically, the belief in digitization as corporeal liberation, allowing us to transcend the limitations of our bodies in order to experience varied subjectivities otherwise unavailable to them.¹⁹ However, the prevailing discourse of human replacement rather than empowerment that surrounded the synthespian made this an uneasy alignment at best. After all, human users were not projected into these transformative figures for the sake of liberating exploration or performance, but rather

¹⁸ Ollivier Dyens, *Metal and Flesh: The Evolution of Man: Technology Takes Over*, trans. Evan J. Bibbey (Cambridge, Mass.: MIT Press, 2001), 85.

¹⁹ While it will be discussed further in the context of the gamer-avatar relationship in Chapter 4, this belief in the liberatory potential of disembodied virtuality is evident in interface designer Meredith Bricken's assertion that, in a virtual environment, "You can be the mad hatter or you can be the teapot; you can move back and forth to the rhythm of a song. You can be a tiny droplet in the rain or in the river." See Meredith Bricken, "Virtual Worlds: No interface to design," in *Cyberspace: First Steps*, ed. Michale Benedikt (Cambridge, Mass.: MIT Press, 1991), 372. Meanwhile, in the context of text-based online encounters, Sherry Turkle celebrates the potential for people "to express multiple and often unexplored aspects of the self, to play with their identity and to try out new ones." Sherry Turkle, *Life on the Screen: Identity in the Age of the Internet* (New York: Simon and Schuster, 1995), 12.

relegated to the sidelines while their digital doubles threatened to take over, at least according to the synthespian's attendant promotional materials. North asserts that, by attributing this autonomous will and agency to the figure of the digital actor, this preliminary construction of the synthespian provided a contemporary re-imagining of the Frankenstein myth, "embodying our own fear of replication and obsolescence, our replacement by digital constructs capable of outstripping our every capability and nuance."²⁰

The notion of the synthespian as an autonomous, wholly digital replacement for the human actor functions as an "information narrative," to borrow N. Katherine Hayles' term.²¹ This narrative elides the multiple material origins of the digital human, depicting it instead as a disembodied but sentient information pattern in a multidimensional computer space. Hayles contends that we are witnessing a transition from the historically specific construct of the "human" to that of the "posthuman," in which notions of a natural body and self are problematized by the elision of "essential differences or absolute demarcations between bodily existence and computer simulation,

²⁰ Dan North, *Performing Illusions: Cinema, Special Effects and the Virtual Actor* (London: Wallflower Press, 2008), 155.

²¹ Hayles, *How We Become Posthuman*, 43. Analyzing the cyberpunk novels of William Gibson as exemplary information narratives, Hayles asserts that "[t]he characteristics of information narratives include. . . an emphasis on mutation and transformation as a central thematic for bodies within the text as well as for the bodies of texts. Subjectivity, already joined with information technologies through cybernetic circuits, is further integrated into the circuit by novelistic techniques that combine it with data. Access vies with possession as a structuring element, and data are narrativized to accommodate their integration with subjectivity. In general, materiality and immateriality are joined in a complex tension that is a source of exultation and strong anxiety."

cybernetic mechanism and biological organism, robot teleology and human goals.”²² As W.J.T. Mitchell observes, Hollywood cinema has fixated upon this posthuman blurring of the boundaries between human and machine, especially in the context of science fiction films that employ digital imaging technologies to realize their narrative visions. Mitchell asserts that films such as *Jurassic Park* (Steven Spielberg, 1993), *The Matrix* (Larry and Lana Wachowski, 1999) and *AI: Artificial Intelligence* (Steven Spielberg, 2001) demonstrate how

the spectre of the “living machine,” the re-animation of dead matter and extinct organisms, the destabilizing of species identity and difference, the proliferation of prosthetic organs and perceptual apparatuses, and the infinite malleability of the human mind and body have become commonplaces of popular culture.²³

The extratextual information narrative surrounding the figure of the synthespian similarly provides an opportunity to reflect upon what Mitchell terms the “host of fantasies and phobias” surrounding this perceived reconfiguration of the human subject.²⁴ While Hayles doesn’t specifically theorize the digital human, her analysis of the reconfiguration of posthuman subjectivity by the condition of “virtuality” has useful implications for how the presentation and reception of the synthespian can be interpreted as reflective of the broader cultural and technological framework in which it was produced. For Hayles, “virtuality” is the cultural perception that material

²² Hayles, *How We Became Posthuman*, 3.

²³ Mitchell, “The Work of Art in the Age of Biocybernetic Reproduction,” 486.

²⁴ Mitchell, “The Work of Art in the Age of Biocybernetic Reproduction,” 486.

objects are interpenetrated by information. This perception has become so powerful, Hayles argues, that informational patterns are progressively becoming privileged over and “disembodied” from the material substrates in which they appear.²⁵ Simply put, as digital information encroaches on our cultural lives, we move towards a condition of virtuality wherein the digital is favoured over the analogue, and abstract data becomes privileged over physical experience. Hayles therefore asks,

[a]gainst this dream or nightmare of the body as information, what alternatives exist? We can see beyond this dream, I have argued, by attending to the material interfaces and technologies that make disembodiment such a powerful illusion. By adopting a double vision that looks *simultaneously* at the power of simulation and the materialities that produce it, we can better understand the implications of articulating posthuman constructions together with embodied actualities.²⁶

The notion of the “body as information” pervades discourses surrounding the virtual geographies and identities existing in cyberspace (be it the “cyberspace” of the Internet, video games, or virtual reality simulations).²⁷ However, as this early history of the discourse surrounding synthespians demonstrates, CGI-driven cinema has also become a quasi-cyberspace for

²⁵ Hayles, *How We Became Posthuman*, 3,13-14. For Hayles, a digital star like Aki, who blurs the distinction between bodily existence and computer simulation, cybernetics and biology, would certainly be considered posthuman, but so too would less obviously “cyborgian” subjects: computer users, gamers, and virtual reality participants who perform and interact in the somewhat broad virtual geography known as “cyberspace,” for example.

²⁶ Hayles, *How We Became Posthuman*, 47.

²⁷ As Hayles acknowledges, the largely uncritical celebration of the “body-as-information” was pre-figured in the pages of cyberpunk literature, wherein cybernetic cowboys leave the inferior “meat” body behind to perform impossible heroics in virtual space. Hayles, *How We Became Posthuman*, 43.

virtual bodies as information, and it provides one of the richest opportunities to adopt the “double vision” Hayles advocates in order to look “simultaneously at the power of simulation and the materialities that produce it.”

Scott Bukatman takes a somewhat more optimistic stance than Mitchell and Hayles, mobilizing the term “terminal identity” to describe how human subjectivity has become intertwined with and transformed by pervasive computing technologies.²⁸ As the boundaries between human and machine erode, Bukatman contends, digital special effects in cinema may appeal to and even appease our increased need to visualize and concretize the otherwise “invisible” computing processes and protocols that have transformed our existence:

Effects present the once-inconceivable in detailed, experientially convincing forms. This has important ramifications for the Information Age. The invisible workings of electronic technology are made perceptible and physical, and are figured in metaphorical but embodied terms. The anxieties and desires of the era take on concrete, literal form. The non-visibility of the data strata of society has led to a series of attempts to refigure the workings of the computer as a space that could be perceived by the human sensorium.²⁹

In many ways, the synthespian provided the ultimate visualization and anthropomorphization of the computational, the literal embodiment of “the invisible workings of electronic technology. . . made perceptible and

²⁸ See Scott Bukatman, *Terminal Identity: The Virtual Subject in Postmodern Science Fiction* (Durham, N.C.: Duke University Press, 1993).

²⁹ Scott Bukatman, “Zooming Out: The End of Offscreen Space,” in *The New American Cinema* Ed. Jon Lewis (Durham, N.C.: Duke University Press, 1998), 255.

physical.” Yet by negating the real bodies and analog technologies crucial to the creation of these “virtual” bodies-as-information, the promotional and critical discourses surrounding the figure of the synthespian set the stage for its uneasy reception.

In fact, just as the Turing test evaluated the computer’s *performance* of human intelligence — its ability to deceive its audience into thinking it human, rather than its actual intelligence — so too was the actual “machine intelligence” of digital humans less important than how their performances *seemed* to replicate those of real actors. To date, this emulation still relies heavily on the motion captured performance data of real actors and the manual interventions of traditional animation techniques.³⁰ While their promotional materials posited an imminent takeover by digital actors “indistinguishable” from the real thing, these same discourses ensured that synthespians’ machinic performances were subject to a heightened level of spectatorial attention in order to assess their similarities to, and differences from, real actors.³¹ As Michele Pierson argues, spectator relations with the cinematic digital image are more defined by knowledgeable discernment than they are wonder and uncertainty, thanks to the growing ubiquity of digital

³⁰ One of the first and only attempts to create synthetic actors using artificial intelligence and behavioural models instead of the embodied performance data of human actors — Nadia and Daniel Magenat-Thalman’s virtual Marilyn Monroe, developed and refined for over a decade by the MIRALab in the 1980s and ‘90s — was persistently hamstrung by technical limitations. You can almost hear the computational gears turning as the Thalmans’s Marilyn walks stiltedly to the podium to accept a “virtual reality” acting prize at the 1996 German “Golden Camera” awards ceremony. See <http://www.youtube.com/watch?v=jvanRFVyo5o>.

³¹ See North, *Performing Illusions*, 170.

imaging within a growing diversity of film genres, the corresponding rise in technical journalistic discourses that cultivate a popular discourse of effects connoisseurship, and the increasing domestication of CGI within the home and workplace.³² Rather than the naïve, incredulous spectators posited by the dystopian narrative of *Simone*, Andrew Niccol's 2000 film about a synthespian (played, tellingly, by real actress Rachel Roberts) who becomes a movie star without her fans realizing her computational origins, "real" spectators confronted the synthespian prepared to identify any and all remaining technological impediments to "believable" machinic performances. As the subsequent consideration of *Final Fantasy* reveals, by foregrounding only the digital elements of its cast, the film's producers underestimated the desire and ability of increasingly knowledgeable and active media consumers to engage with the multifaceted, hybrid nature of the digital human. In the chapters that follow, I'll suggest that this kind of active, discerning, and even "interactive" mode of consumption has been increasingly fostered by media producers operating according to the industrial imperatives of media conglomeration and convergence, a context wherein, to use Ndalians's words, "media merge with media, genres unite to produce new hybrid forms, (and) narratives open up and extend into new spatial and serial

³² Michele Pierson, *Special Effects: Still in Search of Wonder* (New York: Columbia University Press, 2002), 1-10. The increasingly rapid evolution of spectator engagement with CGI is evident, for example, in the perceived datedness of CGI-driven films produced less than a decade ago, a far shorter expiry date than those made prior to the popularization of digital animation and effects.

configurations.”³³

North asserts that, while synthespians seemed to perpetuate the myth of our replacement by digital constructs, these figures ultimately reinforced human superiority by functioning as a representational tool for displaying and demystifying broader cultural anxieties over “virtual” digital technologies. Thanks in part to the strong conceptual tie between the malleability of the computer-generated image and a broader belief in computers as fundamentally intangible and untrustworthy,

(t)he concept of the synthespian embodies fears of usurpation, but, in its current form, its capacities stunted reassuringly by the technological boundaries, it remains the most controllable visualization of computer intelligence, existing as it does in the form of virtual starlets, computer game sprites and marketing attractions — all forms in which the ‘robot’ is subjugated by its context, clasped in the stasis of familiar, gendered, humanly-constructed roles.³⁴

For North, then, the synthespian’s initial failure rehearses the safe containment of the digital image and, by extension, the computer intelligence perceived to be behind it, articulating wider concerns over the fate of human agency and subjectivity in the digital age. I want to suggest that any analysis of digital humans must also consider the broader cultural and industrial context of media change and convergence that produces them. I advocate the rediscovery and close analysis of the particular materialities that inform the allegedly “synthetic” synthespian in order to demonstrate how the digital human is as much an allegory of media change as it is one of altered human or

³³ Angela Ndaljianis, *Neo-Baroque Aesthetics*, 2-3.

³⁴ North, *Performing Illusions*, 165.

posthuman subjectivity — or rather, that if the digital human articulates certain changes to human subjectivity, they are changes wrought by the processes and protocols of media convergence. By reinstating the real bodies and analogue technologies that haunt the “information body” of the synthespian, it becomes evident how traditional media forms still haunt the so-called “new” media of the digital human.

Troubling the break between “old” and “new” media

This early period of presentation and reception of the digital actor doesn't simply point up broader anxieties surrounding the fate of the “human” in the digital age. The popular, industrial, and critical discourses surrounding the synthespian also presumed the radical “newness” and innovation of the digital actor as a complete ontological break from previous methods of depicting and animating the human form. It is therefore necessary to explore and begin to contextualize how the figure of the digital human personifies similar anxieties over the future of more traditional media forms, as well as the future of the spectator-consumer in relation to media change.

As Chuck Tryon asserts, the use of digital imaging technologies in Hollywood films “has invoked debates about the potential for digital technologies in general to challenge traditional definitions of the human, as well as traditional definitions of what counts as film.”³⁵ After all, what's being replaced in this formulation of the synthespian as pure “information” is not

³⁵ Chuck Tryon, *Reinventing Cinema: Movies in the Age of Media Convergence*. (New Brunswick, NJ: Rutgers University Press, 2009), 40.

just the human actor; it's also the photographically recorded, indexical image of that actor, writ large across the movie screen as a guarantee of that actor's presence before the camera in the moment of filming, and a once-indispensable aspect of traditional definitions of what counts as film. By focusing upon the radical newness of the synthespian and its potential to replace the human performer, early writing on the digital actor echoed and even magnified a wider discourse of radical change and digital "replacement" prevalent within industry discourse, new media literature and film studies at the time.

These discourses emphasized a distinct break between so-called "old" and "new" media brought about by the transition from analogue to digital technology. In the context of cinema, it takes the shape of what Martin Lister has observed as a "disingenuous pre-occupation with the loss of the real" as digital imaging technologies began to replace photographic ones beginning in the late 1980s and early 1990s.³⁶ This perceived loss of the real was overwhelmingly blamed on the perceived loss of cinema's privileged connection to what it represents, thanks to digital animation's achievement of photorealistic simulation without any apparent obligation or connection to a real-world referent. For example, Andrew Darley makes a case for the absence of indexicality in CGI on the grounds that such imagery lacks a real-world, profilmic moment:

³⁶ Martin Lister, "Introduction," in *The Photographic Image in Digital Culture* ed. Martin Lister (London; New York: Routledge, 1995), 1-4.

Computer generated images do not involve recording, except in the senses of indirect or secondary contact. Strictly speaking (and using Peirce's categories or elements of the sign), computer generated imagery is iconic, never indexical — no matter how photo-realistic it looks — in the sense that photography is an index (not necessarily reliable) of there having been something in the world (staged or not) previously (see Peirce 1931).³⁷

Darley builds on Charles S. Peirce's theorization of indexical signs as those which privilege "contact" or "connection" between real and representation.³⁸

By treating photography as "an index . . . of there having been something in the world," Darley also echoes Roland Barthes's influential assessment of the

³⁷ Andrew Darley, *Visual Digital Culture: Surface Play and Spectacle in New Media Genres*. (London: Routledge, 2000), 88.

³⁸ As Paul Forster argues, for Peirce, "What distinguishes indices as a kind of sign is that their capacity to represent objects is produced by the very objects they represent. My footprint represents my foot — as opposed to some other object of the same size and shape — because it is my foot that caused it. This causal connection is what qualifies my footprint as an index. Similarly, a weathervane is an index of the wind direction at a particular time and place because its orientation is caused by the wind it represents. To say a symbol's denotation is fixed by an index, then, is to say that the symbol is causally (or as Peirce often says 'dynamically') determined by its object (2.305, 1902).: Paul Forster, *Peirce and the Threat of Nominalism*. (Cambridge: Cambridge University Press, 2011), 90. A philosopher whose writing on semiotics and the different orders of signs (as icons, indices and symbols) has been vastly influential upon studies of cinema and photography, Peirce's assessment of photographic images as both iconic (resembling their subject matter) and indexical (physically "connected" to their subject matter) has been taken up repeatedly by cinema and digital media scholars seeking to claim a wholly different ontology for digital images: "Photographs, especially instantaneous photographs, are very instructive, because we know that they are in certain respects exactly like the objects they represent. But this resemblance is due to the photographs having been produced under such circumstances that they were physically *forced to correspond point by point to nature*. In that aspect, then, they belong to the second class of signs, those by physical connection." Charles S. Peirce, *The Philosophical Writings of Charles S. Peirce* ed. Justus Buchler (New York: Dover, 1955), 106. Emphasis mine.

photograph as “literally an emanation of the referent.”³⁹ But as Tanine Allison has argued and as will be discussed further below in relation to *Final Fantasy*, Peirce’s theory of the index doesn’t rule out the possibility that digital images can be indexical, although it does, Allison contends, necessitate the careful extratextual management of how these images were produced.⁴⁰ However, as Lister asserts and Darley demonstrates, both cultural theory and popular media at the time posited an essentializing opposition between the veracity of the photographic image and the digital image as wholly constructed, due to the indeterminacy of its referent and its apparent potential for limitless manipulation.⁴¹

³⁹ Roland Barthes, *Camera Lucida: Reflections on Photography* (New York: Hill and Wang, 1980), 81.

⁴⁰ Tanine Allison, “More Than A Man in a Monkey Suit: Andy Serkis, Motion Capture, and Digital Realism,” *Quarterly Review of Film and Video*, 28 (2011): 335.

⁴¹ Lister, “Introduction,” 1-4. To some extent this essentializing continues, for example in the work of cinema scholar D.N. Rodowick, who contends that even those digital images that record “real-world,” profilmic moments (including those which document family memories, or even serve as police evidence) have their “powers of indexicality . . . weakened and decentred by the process of digital conversion.” For Rodowick, digital and analogue photography differ in their ontology: the digital camera does not physically register an imprint of light onto celluloid, but rather must convert it into abstract numerical data. As the product of algorithms, he argues, the profilmic reality/referent of the digital image becomes yet another data set, granting it an identical status to the wholly fabricated digital image. See D.N. Rodowick, *The Virtual Life of Film* (Cambridge, Mass.: Harvard University Press, 2007), 166-167. Similarly, Mary Ann Doane bemoans the loss of photographic credibility wrought by digital media in a 2007 journal issue on indexicality: “With the advent of digital media, photography, in particular, has seemingly lost its credibility as a trace of the real, and it could be argued that the media in general face a certain crisis of legitimation. The digital offers an ease of manipulation and distance from any referential grounding that seem to threaten the immediacy and certainty of referentiality we have come to associate with photography.” See Mary Ann Doane, “Indexicality: Trace and

As digital imaging became increasingly capable of simulating the tropes and aesthetics of live-action cinematography, the digital human became the litmus test for whether digital animation could replicate *every* element of live action cinema, and, in so doing, presumably render it obsolete. The promotional materials for these figures celebrated the possibilities of the new replacing the old, while their uneasy popular and academic reception mourned the prospect of this replacement. Both sets of discourses presumed an inevitable rupture between analogue and digital media that is ultimately problematic, especially since the “new media” synthespian still relies on certain analogue processes associated with both live-action cinema and drawn animation. Ultimately, the figure of the digital human points up how media change must be thought of in terms of overlap, convergence and remediation that operates in both directions, not a decisive break.

By highlighting their wholly digital origins in relation to their increasingly photorealistic aesthetics, the creators of the first digital humans foregrounded and celebrated their lack of indexicality, flaunting the appearance of realism without real-world reference as both a desirable goal and an inevitable achievement. In many early digital works, the first human prototypes were portrayed as boasting about their independence from the limitations of both the human body and the filmic apparatus, even though their ultimate goal was the painstaking simulation of both. For example,

Sign: Introduction,” *differences* 18.1 (Spring 2007): 1.

Nestor Sextone (Fig. 2), the star of the Kleiser and Walczak short film responsible for the term “synthespian,” was a digital human character running for the presidency of the Synthetic Actor’s Guild. Sextone’s platform included an outraged attack on “fake” digital characters like Max Headroom, who was actually the filmed image of actor Matt Frewer sporting heavy make-up.⁴² By this formulation, “real” and “fake” become inverted, and Sextone’s computer-generated “authenticity” without human reference makes him the “man” best suited for the job.



Fig. 2: Nestor Sextone for President

⁴² See “Synthespian: A synthetic media personality,” Technovelgy.com, accessed July 6, 2012, <http://www.technovelgy.com/ct/content.asp?Bnum=87>. Said Kleiser, “Max Headroom was written and directed by Rocky Morton and Annabel Jankel (now of MJZ) and they used Matt Frewer in makeup to represent a CG character. We were poking fun at them in Nestor Sextone for President: Nestor is running for president of the synthetic actors guild, and promising that humans in makeup will no longer take work away from synthetic actors.”

Even more overt about her computational origins was Kleiser and Walczak's next creation, Dozo (Fig. 3), a synthespian pop star whose first and only single, "Don't Touch Me," spelled out the impossibility of Dozo's fans ever getting to know her in the flesh.⁴³ While Dozo croons that her "microchips can make it real," the virtual camera pans and circles around her so we can evaluate whether or not her animators have succeeded in making Dozo real — or, rather, "real" according to the standards of live-action photography.



Fig. 3: Dozo

⁴³ See Dozo, "Don't Touch Me," 1989, accessed July 5 2012, <http://www.poetv.com/video.php?vid=15102>.

Dozo's physical movements are suitably slinky, at least according to limited demands of this particular performance, although a lack of refined textural detail and facial expressivity give up the ghost of the photoreal fairly quickly, suggesting something to be improved upon in the next prototype. Our virtual cameraman seems to know this, and backs away from the close-ups that expose the limitations of the technology whenever possible. Dozo did have at least one source of human reference in the real world: an actress whose motion-captured bodily performance was used to animate Dozo's movements. During motion capture, actors in body suits covered in reflective markers (or optical trackers) perform in front of special cameras that record the positional data of the performance subsequently used to animate the digital character, "which can be clothed, coloured and characterized according to requirements, retaining the movements memorized from the original performance."⁴⁴ As such, Dozo is still reliant on certain processes inherent to so-called "old" media: not only the kind of embodied performance found in live-action cinema, but also the practice of rotoscoping in drawn animation, where a live actor's performance is traced and used to create believable character movement. (The rotoscope projects live action footage of real human bodies frame by frame onto a translucent drawing board, allowing animators to trace each frame over the real body in an effort to ensure the naturalism of their characters' movements.) But, in the spirit of emphasizing

⁴⁴ North, *Performing Illusions*, 150.

the radical newness of both the digital performer and her digital medium, this particular body was buried in almost all of Dozo's PR.

A kind of Dozo 2.0, virtual pop star Kyoko Date (Fig. 4) took Japan by storm in 1996. While personal appearances were out of the question, Kyoko's creators worked to create an elaborate biography about her family life, relationships and hobbies, and fabricated the kinds of photoshoots and interviews typical of the promotion and gossip surrounding real celebrities:

In fact, about the only difference between Date (pronounced dah-tay) and rival idoru like Namie Amuro or Yuki Uchida is that they're flesh and blood — and she's just a computer graphic. Well, maybe not just. Slip her latest enhanced-CD single, the import-only "Love Communication" (Victor Japan), into your CD-ROM drive, and there's Date's perky greeting: "*Mina-san! Hajimemashite!*" ("Hi, everyone! Nice to meet you!"). Choose English or Japanese for a profile of Date, including her height (5'3" and "still growing"), blood type (A), childhood dream ("to be a private detective"), and favorite foods (chocolate, for one).⁴⁵



Fig. 4: Kyoko Date

⁴⁵ J.P. Considine, "She's Fab, Fun – and Fake," EW.com, May 16, 1997, accessed May 27, 2012, <http://www.ew.com/ew/article/0,,287972,00.html>.

The main difference is that Kyoko's biography also features beauty secrets unique to the digital human — like her polygon count, for example (40,000). Motion capture is mentioned breezily as one of the many technical processes that helped create Kyoko, but the actress who provides that performance is never acknowledged or credited.⁴⁶ It is the synthetic elements of Kyoko's biography that point up the achievement of her photorealistic appearance and her independence from old media, and so it is these elements which are emphasized. Meanwhile, her music videos attempt to blend the high-resolution pop star with live action settings, and dare us to discern the difference between the two.⁴⁷ Integrated into her photographically recorded surroundings, real human passers-by provide the standard against which Kyoko can be judged, as much as a technical achievement as a believable performer.

While their promotional discourses celebrated the synthespian as an ambassador for how the digital could and would surpass the analogue, early academic writing on the subject circled anxiously around the prospect of this displacement. However, both sets of discourses assume the same kind of decisive and inevitable rupture between old and new media brought about by digital technology. That digital animation would achieve its photorealist aspirations and displace the referential medium of live-action cinema was viewed by many scholars as both inevitable and lamentable. For example, in

⁴⁶ Mary Flanagan, "Mobile Identities," 10.

⁴⁷ See Date's music video, "Love Communication PV," accessed July 1, 2012, <http://www.youtube.com/watch?v=PhfsZ66tEFY>.

“What is Digital Cinema?” Lev Manovich declared that, with sufficient time and resources, we will witness the creation of “the ultimate in digital cinema,” a wholly computer-generated medium that indistinguishably produces the look and feel of cinema without live-action photography.⁴⁸ Brian Winston argued that digitization undermined the evidentiary nature of the photographic entirely because of the ease with which images could now be manipulated without detection.⁴⁹ Meanwhile, Andrew Darley claimed that digital photorealism “displaced” and “demoted” questions of meaning and reference in order to fixate on the superficial fascination of the image itself.⁵⁰ As a result, Darley asserted,

(the) positive reception of the films of mainstream digital cinema depends as much on a fascinated spectator, immersed in dazzling and ‘spellbinding’ imagery, as on identification with character and the machinations of plot and theme.⁵¹

For Darley, the “fascinated” reception brought about by this loss of photographic referentiality prompts a return to cinema’s earlier, spectacular origins, largely abandoning classical Hollywood cinema’s obligations to narrative and character in the process. Darley asserted that CGI-driven films were part of the “new” aesthetic tradition of visual digital culture, which he described as “a spectacle tradition that revels in sensation, astonishment,

⁴⁸ Lev Manovich, “What is Digital Cinema?” accessed August 16, 2012, <http://www.manovich.net/TEXT/digital-cinema.html>.

⁴⁹ Brian Winston, *Claiming the Real: Documentary Film Revisited* (London: British Film Institute, 1995), 6.

⁵⁰ Darley, *Visual Digital Culture*, 88.

⁵¹ Darley, *Visual Digital Culture*, 103.

ephemerality and diversion.”⁵² The various digital media forms he examined (including blockbuster cinema, music videos, and video games) were deemed direct, confrontational, and lacking the symbolic depth and representational complexity of earlier cultural forms.⁵³ Darley’s belief that the indexical link between image and referent had been severed by photorealistic digital imaging processes had clear implications for the way he theorized digital spectatorship, which he argued was defined by an oscillation between belief in and decipherment of the computer-generated image.

In this sense, Darley’s conception of the contemporary spectator was not unlike Tom Gunning’s incredulous early cinema spectator, whose thrilled or visceral reactions to the confrontational shocks of the pre-classical-narrative cinema of attractions revealed “pleasure derive[d] from the energy released between the shock caused by this illusion and delight in its pure illusion.”⁵⁴ However, the opposition Darley posited between narratively integrative live-action cinema and spectacular digital cinema was a reductive means of dealing with an increasingly complex and hybrid media form and its reception. Michele Pierson’s analysis of the shifting presentation and reception of CGI special effects, performed at roughly the same time as Darley’s work on visual digital culture, provided a useful corrective. As Pierson observed, the earliest uses of cinematic CGI within such films as *TRON* (Steven Lisberger, 1982) and *The Last Starfighter* (Nick Castle, 1984)

⁵² Darley, *Visual Digital Culture*, 76.

⁵³ Darley, *Visual Digital Culture*, 73-76.

⁵⁴ Tom Gunning, “An Aesthetic of Astonishment: Early Film and the (In)Credulous Spectator,” *Art and Text* 34 (Spring 1989): 42.

indeed functioned as pure attraction insofar as they were made unavoidably conspicuous by the very basic rendering capabilities of early 1980s CGI, while the vastly improved techniques of early-to-mid-1990s CGI tended to be mobilized as spectacle in “impossible” photoreal special effects, ranging from *Jurassic Park*’s dinosaurs to *Independence Day*’s (Roland Emmerich, 1996) combustible White House. In addition to these ostentatious examples of the impossible photoreal, Pierson observed that the early- to mid-1990s signified the “wonder years” of CGI effects wherein an overtly “technofuturist” aesthetic self-consciously drew attention to itself through almost fetishistic close-ups and prolonged tracking shots, particularly within the context of science-fiction cinema.⁵⁵ Most famously embodied by the liquid metal morphing spectacularity of the T-1000 in *Terminator 2: Judgment Day*, Pierson suggested that this presentational, technofuturist aesthetic was intended to address an emergent community of digital effects connoisseurs interested in the discerning scrutiny of CGI. According to Pierson, even at this relatively early point in the reception of digital images, spectators no longer engaged with them in a state of naïve wonderment, but rather as the ubiquitous and “domesticated” form of representation they had become.⁵⁶ As North contends, the proliferation of “how-to” technician discourses about CGI in the context of mainstream journalistic coverage and DVD supplementary materials means that we must acknowledge how

⁵⁵ Michele Pierson, “CGI Effects in Science Fiction 1989-1995: The Wonder Years,” *Screen* 40(2) 1999: 158-161.

⁵⁶ Pierson, *Still in Search of Wonder*, 1-10.

the spectator's interpretation and appreciation of the film text occurs not as a hermetically sealed set of startling images, but as a nexus of information which regulates expectations and aids an oscillatory relationship between diegetic and extra-diegetic material – the spectator can be helped to view the film as a self-contained story and a technological performance simultaneously.⁵⁷

In most early analyses of digital images, the ongoing debate as to whether conventional photography and cinema are fundamentally realist or constructivist became displaced onto this perceived opposition between the photographic and the digital. The perceived truth of photographic indexicality was falsely naturalized, and its imminent loss grieved somewhat prematurely. For example, Paul Willemen expressed a technophobic anxiety that image digitization was but one example of how human intellect would be jeopardized by delegating certain tasks to computers, reducing our mental processes to a series of fragmented, repetitive tasks that would curtail both ingenuity and individuality. According to Willemen,

[t]his is not an unfortunate side-effect of digitalisation, it is in the very dynamics of the thing, one of the main reasons for the relentless hyping of new media: whereas Fordism allowed for the intensification of the exploitation of the physical energy stored in the body's musculature, digitalisation is the Fordism of mental labour, of thought-work. Computers are to mental labour what the conveyor belt was to physical labour.... the

⁵⁷ North *Performing Illusions*, 170. Similarly, Jenkins asserts of the synthespian's reception, "no real confusion is likely when consumers avidly seek behind-the-scenes information about special effects and producers are keen to crow about their latest technical breakthroughs. In the short term, synthespians are used more often to impress us with their creators' virtuosity than to confuse us about the line between reality and fantasy." Jenkins, "Celluloid Heroes Evolve," 2003.

digitalisation of the image involves, by reducing (even absencing) the role of ‘the physical,’ the ‘sensuous’ (by reducing and eventually absencing the indexical aspects of the image), the redefinition and reformatting of intellectual labour as an industrially administerable process.⁵⁸

Willemen feared that that cinema’s perceived loss of indexicality in the digital age would have dire consequences for human subjectivity, since, he argued, freeing the image from any connection to “nature” and the “physical” in the form of a real-world referent also annexed the role of the creative human body “in favour of the protocols controlled through computer codes and software packages.”⁵⁹ Manovich was similarly alarmist about the impact of interactive media upon human subjectivity, contending that memory, problem solving, and reflection — indeed, the fundamental processes of human thought — would become externalized and objectified by our engagement with “linked” digital media:

Now, with interactive media, instead of looking at a painting and mentally following our own private associations to other images, memories, ideas, we are asked to click on the image on the screen in order to go to another image on the screen, and so on. Thus we are asked to follow pre-programmed, objectively existing associations. In short, in what can be read as a new updated version of Althusser’s “interpolation,” we are asked to mistake the structure of somebody’s else mind for our own.⁶⁰

⁵⁸ Paul Willemen, “Of Mice and Men: Reflections on Digital Imagery,” 292: *Essays in Digital Culture*, 1 (2000): 17.

⁵⁹ Willemen, “Of Mice and Men,” 17.

⁶⁰ Lev Manovich, *The Language of New Media* (Cambridge, Mass.: MIT Press, 2002), 61.

Willemen and Manovich echoed broader cultural anxiety over the rootless ontology of the human form once separated from the photographically recorded referent of the lived body during this period. As Barbara Creed speculated in her much-cited analysis of “the cyberstar,” published in *Screen* in 2000:

Now it is possible to create computer-generated objects, things and people that do not have referents in the real world but exist solely in the digital domain of the computer. In other words, film has been freed from its dependence on history and on the physical world. Central to these changes is the possibility of creating a virtual actor, of replacing the film star, the carbon-based actor who from the first decades of the cinema has been synonymous with cinema itself. In the future, living actors may compete with digital images for the major roles in the latest blockbuster or romantic comedy.⁶¹

For Creed, to render the film star obsolete was to threaten live-action cinema as we’ve known it, since, she suggests, the two are nothing short of synonymous. In order to challenge this obsolescence of both star and celluloid, Creed went so far as to suggest that identification between viewer and star hinged on the verifying presence of the star’s “real” body as a kind of visible guarantee that the star had undergone the off-screen trials and tribulations of lived experience. Without this “carbon-based” body plainly visible on screen, Creed argued, the synthespian relinquished any claims to human authenticity:

The cyberstar is not subject to the same experiences as the living star, experiences such as mothering, Oedipal anxiety, hunger, loss, ecstasy, desire, death. The

⁶¹ Barbara Creed, “The Cyberstar: Digital pleasure and the end of the unconscious,” *Screen* 41:1 (Spring 2000): 80.

cyberstar has no repressed desires or primal traumas. In short, the synthespian does not have an Unconscious. . . . How much of the power attached to the experience of identification is derived from the spectator's awareness — conscious or not — that the star on the screen has undergone experiences common to the human subject? To what extent will the virtual nature of the star's image induce in the spectator a sense of depthlessness in his/her relationship with the figure on the screen?⁶²

Without the photographic record of the star body, Creed contended, the cinematic image would be plagued by depthlessness, its cyberstar occupants devoid of the life experience essential to spectatorial identification. In so doing, Creed ascribed an implicit depth and authenticity to analogue media, at the same time that she denied its possibility in the context of digital media. As a result, Creed argued, even the most perfectly “photorealistic” cyberstars would find themselves starring in a “clean, plastic cinema” devoid of emotional resonance.⁶³ Or, as Allan Laing put it in one of the rare journalistic accounts of this period to question the inevitability of the synthespian takeover:

It will never happen, of course. We need our Hollywood heroes. And we need them in the flesh, with all the human failings that run with the territory. Computers might be able to generate the perfect actor, but they can't give him feet of clay. You'll never find synthespians snapped by a paparazzi the worse for wear at a movie premiere party, nor will you find them under arrest for drug offences or for being found in a compromising position with a transvestite hooker in the back of a car parked off Hollywood Boulevard. And, try as they might, synthespians don't give good interviews.⁶⁴

⁶² Creed, “The Cyberstar,” 84.

⁶³ Creed, “The Cyberstar,” 85.

⁶⁴ Laing, “Not what you think.”

As will be discussed below, as the first all-CGI film to feature photorealistic digital stars, *Final Fantasy: The Spirits Within* was most one of the most high-profile sites of this attempted new media “takeover.” By reinstating the real bodies and analogue technologies that inform the creation of the supposedly “synthetic” synthespian, I will demonstrate how the figure of the digital human ultimately points up how media change must be reconceptualized as an ongoing process of overlap and convergence, not a decisive break. Similarly, “what it means to be human” in the industrial and technological framework of media convergence must be re-thought: rather than undergoing a radical dissolution from body-as-meat to body-as-information, the human subject is now situated in a complex web of overlapping digital media products and consumption protocols, its active agency enabled in some ways and curtailed in others.

Final Fantasy: Digital distraction from the bodies within

Aki Ross, a versatile young actress who stars in a movie to be released this week, rakes slender fingers through wind-rippled hair. The light contracts her pupils and glistens on sweat-streaked cheeks, as her eyes sparkle with the eerie illusion of intelligence. It feels eerie because Aki is composed only of pixels, and she is created and manipulated by a computer animator who works his mouse like a weaver at his loom.⁶⁵

The speculation that digital actors could replace real stars preceding *Final Fantasy's* release was in part due to the elaborate promotional campaign waged by Square Pictures. *Final Fantasy's* creators boasted of its uniqueness

⁶⁵ Lyman, “Movie Stars Fear Inroads.”

as a film that, according to its (now-defunct) website, contained “no real locations, people, vehicles or props,” its cast “composed only of pixels.”⁶⁶ Its designated breakout star Aki Ross (Fig. 5) was “not a person at all but a coolly rendered digital animation;”⁶⁷ “made of nothing more than ones and zeroes”⁶⁸ built “in a computer in Waikiki Beach.”⁶⁹



Fig. 5: Aki Ross

Press kit materials featured fabricated star biographies for each CG cast member, but these bios ran alongside detailed technical specs of how each

⁶⁶ Quoted from the *Final Fantasy* website (URL no longer active) in Rina Jiminez-David, “Final Fantasy: An Old Fogey’s Take,” *The Phillipine Daily Inquirer*, July 17, 2001.

⁶⁷ Michael O’ Sullivan, “*Final Fantasy*: Too Real and Yet Not Real Enough,” *The Washington Post*, July 13, 2001: T36.

⁶⁸ Robert Wilonsky, “Flesh for Fantasy,” *The Dallas Observer*, July 12, 2001, accessed May 27, 2012, <http://www.dallasobserver.com/2001-07-12/film/flesh-for-fantasy/>.

⁶⁹ Todd McCarthy, “Final Fantasy: The Spirits Within,” *Variety*, July 9, 2001, accessed May 5, 2012, <http://www.variety.com/review/VE1117798442?refcatid=31>.

“actor” was created, with descriptions of polygon counts and texture maps strongly favoured over hobbies and favourite colours. Square Pictures circulated a series of still photographs of Aki designed to showcase her strikingly photorealistic appearance, which were re-circulated and reprinted with various versions of the same gee-whiz cut line: “I can’t believe it’s not human.” Or, in the words of *New York Times* writer Elvis Mitchell, “She’s Lovely, But Alas, Only Software.”⁷⁰ Director Hironobu Sakaguchi and lead animator Roy Sato joked in interviews about Aki’s obedience to their every artistic whim, especially in comparison to the unruly troublemaker that is the human star. After all, it’s highly unlikely that Gwyneth Paltrow would have agreed to a string bikini and an impromptu bust enlargement for a layout in Maxim’s “Hot 100” issue, as Aki did in the April 2001, issue (Fig. 6).

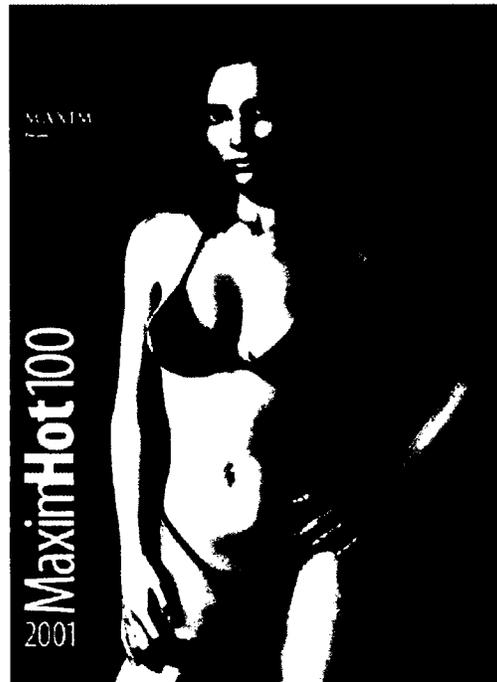


Fig. 6: Aki Ross “poses” for *Maxim*

⁷⁰ Elvis Mitchell, “She’s Lovely, But Alas, Only Software,” *The New York Times*, July 11, 2001: E1.

Actress Aki Ross does not exist, but her movie career is blossoming nevertheless. The computerized 27-year-old stars in the sci-fi adventure *Final Fantasy: The Spirits Within*, the first feature length film with an entire cast of nearly photorealistic animated humans. The technology could change the definition of “performer.”

“Unfortunately, actors are kind of bound to their own personal style, their own personal way of doing things,” said Roy Sato, a senior animator on *Final Fantasy*.

“Whereas with Aki, well . . . I can make her do anything I want.”⁷¹

⁷¹ Anthony Breznican, “Final Fantasy is big break for digital actors,” *The Associated Press*, July 10, 2001. While beyond the parameters of this project, the latent sexism of Aki’s animators’ remarks, her incongruous extratextual performance as sex symbol pin-up, and the suppression of the female actors involved in her creation point up how *Final Fantasy* and its digital heroine also merit closer examination for what they reveal about gendered notions of screen acting, subjectivity, and the body in an era when the possibilities of digital imaging are viewed as potentially de-stabilizing to all of the above. For example, convincing claims have been made within feminist scholarship (and often echoed in virtuality literature) that the category of the body is what must be “left behind” or suppressed in order to transcend the perceived unruliness or weakness that legitimates its subordinate coding-as-object within patriarchy. As Elizabeth Grosz observes, the fact that misogynist hostility towards women and femininity has typically been rationalized through the deprecation of women’s bodies gave way to an initial feminist suspicion of re-exploring notions of female corporeality and how women’s bodies may be retrieved and represented according to the interests of women. See Elizabeth Grosz, *Volatile Bodies: Towards a Corporeal Feminism*, (Bloomington and Indianapolis: Indiana University Press, 1994), 14. In the case of Aki Ross, the uncovering of the bodies integral to her creation may serve to challenge the myth of her virtual manipulability, as well the “problem” of the female star body on screen. Building on Grosz’s call for the re-discovery of a “corporeal” feminism that addresses the historical and cultural specificities of the body, as well as N. Katherine Hayles’s recommendation for the reclamation of “embodied” virtuality, Aki’s boundary-blurring status as virtual star with material origins could be examined for how it problematizes the oft-unquestioned Cartesian association between “subjectivity with the rational mind that has traditionally been encoded masculine, leaving behind the materiality of the body that has been identified with the feminine.” N. Katherine Hayles, “Embodied virtuality, or how to put bodies back into the picture,” in *Immersed in Technology: Art and Virtual Environments*, eds. M.A. Moser & D. MacLeod, (Cambridge, MA: MIT Press, 1996), 4.

Although once the kind of technician detail reserved for special interest FX publications, within the mainstream media there was a recurrent fixation upon the surface photorealism of *Final Fantasy's* characters — the time, money, and nerd sweat devoted to achieving accurate simulations of different surfaces and textures, ranging from fabric that wrinkled in relation to character movement, to skin that was believably blemished, to hair that flowed convincingly, achievements that Sakaguchi and his team of animators credited to the proprietary computer hardware and software created for the film.

In many photo spreads, Aki had to strip down much further than her bikini, to the wireframe skeleton upon which her animators added different layers of muscle, skin and exhaustively realized textural detail. For Vivian Sobchack, this media discourse of digital surface accuracy functions as a kind of “epistemic call” to the spectator. We are asked to scrutinize the most minute details of *Final Fantasy's* human characters with a “heightened and hyperbolic form of judgmental attention” in comparison to the “normal” mode of attention with which we might view cinematic realism or “irreal” animation.⁷² Although Sobchack asserts that this call to attention is strictly extra-filmic, I would argue that this intensification of our gaze is further reinforced by the film’s mode of address. Prolonged, unflinching close-ups and isolated, fragmented shots of synthespian hands, foreheads, and faces invite the viewer to marvel at the latest innovations in texture mapping; eyes,

⁷² Vivian Sobchack, “Final Fantasies,” 179-180.

hair, wrinkles, beads of sweat and liver spots have never merited so much screen time (Fig. 7).



Fig. 7: Dr. Sid

Sakaguchi's almost obsessive focus on the quality and accuracy of the spectacle on offer brings to mind the presentational mode of address Pierson identified within certain sci-fi films from the early-to- mid-1990s "wonder years" of CGI, designed to encourage the kind of scrutinizing, technological gaze Pierson aligned with an emergent community of digital effects connoisseurship at the time. In contrast to the electronic, hyperreal "technofuturist" aesthetic Pierson observed within this period of CGI-driven sci-fi cinema, Sakaguchi's wholly-CGI feature favours a hyperbolic focus on simulationist photorealism. This scrutinizing gaze is especially evident during the film's opening dream/waking sequence, in which we are introduced to Aki via a series of fragmented, isolated extreme close-ups: her glistening brown

eye blinking in horror at a wasted alien dreamscape, her hand sliding over the visible pores of her forehead as she wakes from the dream, the gentle swish of her hair in zero gravity. (As Roger Ebert observed, “The first closeup of [Aki’s] face and eyes is startling because the filmmakers are not afraid to give us a good, long look — they dare us not to admire their craft.”)⁷³

Invoked repeatedly in relation to *Final Fantasy*, the term *photoreal* refers to its attempts to replicate the presumed photographic indexicality of cinema via non-photographic means, an endeavour Darley terms “second-order realism.”⁷⁴ Second-order realism reconsiders the ontology of the photographic image by severing the indexical connection to its original subject. Simply put, it strives to replicate cinematic realism, but without any apparent connection to a real-world referent. By insisting upon a wholly digital origin story for their characters, *Final Fantasy*’s creators didn’t just seek to promote the novelty of their digital star, but also sought to foreground the technical virtuosity of the film’s photorealistic aesthetic and its transcendence of both live-action cinema and traditional, hand-drawn animation through its achievement of second-order realism. Of course, this “transcendence” ultimately entailed striving to slavishly replicate live-action cinema. Unintentionally echoing Manovich’s assessment of the “ultimate digital cinema” as that which is indistinguishable from live-action cinema, Sakaguchi insisted that within the first ten minutes he wanted the audience to

⁷³ Roger Ebert, “Final Fantasy: The Spirits Within,” *The Chicago Sun-Times*, July 11, 2001, accessed May 5, 2012, <http://rogerebert.suntimes.com/apps/pbcs.dll/article?AID=/20010711/REVIEWS/107110301/1023>.

⁷⁴ Darley, *Visual Digital Culture*, 84.

forget that they were watching computer-generated imagery: “I want them to feel as if they are watching *live humans on film* and not see anything unnatural.”⁷⁵

Thomas Lamarre argues that, in order to create a “new media world” of photoreal animation, *Final Fantasy* treated live-action cinema and its photo-indexical ontology as a stable, immutable world with origin and end, “old” media which the “new” media of CGI must simulate and ultimately “kill” in order to come alive.⁷⁶ Lamarre points out similar rhetorical efforts within new media scholarship at the time, most notably in Lev Manovich’s *The Language of New Media*, which touted digital animation’s achievement of “second-order realism” as a sign that animation, long subordinate to cinema, now subsumes cinema as one of many available graphic modes.⁷⁷ However, as Lamarre asserts, just as new media cannot be tidily assumed to kill and subsume old media, ultimately *Final Fantasy*’s attempts at second-order realism do not detach it from questions of indexicality and real bodies entirely, no matter how strongly its creators attempt to suppress this connection.

In actual fact, just as the characters examined in the chapters that follow rely on “captured” human performance for their movements and expressions, Aki Ross and her co-stars rely on a multiplicity of human bodies, faces, and voices in order to be brought to life, just as they rely on various practices and

⁷⁵ Michael A. Hiltzik and Alex Pham, “Synthetic Actors Guild,” *Los Angeles Times*, May 8, 2001, accessed June 10, 2012, <http://articles.latimes.com/2001/may/08/news/mn-60707>. Emphasis mine.

⁷⁶ Thomas Lamarre, “New Media Worlds,” in *Animated Worlds*, ed. Suzanne Buchan (Bloomington: Indiana University Press, 2006), 131-150.

⁷⁷ Manovich, *The Language of New Media*, 295.

technologies associated with the so-called “old” media of live-action cinema and drawn animation. Although the ostensibly Caucasian visual image of digital actor Aki Ross may be a computer-generated composite of texture maps digitally painted over wire-frame models,⁷⁸ her voice was provided by Chinese actress Ming-Na, and the majority of her physical movements were animated by the motion captured performance of actress Tori Eldridge. Those of Eldridge’s movements which didn’t translate properly into animation and the bulk of Aki’s smaller gestures, as well as all of her facial expressions, were keyframed by her lead animator Roy Sato, who often modeled Aki’s expressions after a combination of Ming-Na’s expressions during her videotaped vocal recording and his own facial expressions, as examined in a mirror he kept next to his computer.⁷⁹ Far from being a purely synthetic synthespian, wholly “new” digital media made of nothing more than ones and

⁷⁸ See Jody Duncan, “Flesh for Fantasy,” *Cinefex* 86 (2001): 34-44, 127-129, for a detailed account of the various stages involved in convincingly rendering visual images of the film’s characters, from 2D storyboards to low resolution 3D images used to determine blocking, movement, and camera angles, to the final layering of character-specific “texture maps” (including those used for different types of skin, hair, and cloth) over 3D wireframe models. In terms of Aki’s ethnicity, it is worth noting that although director Sakaguchi intended her to be of half-Japanese, half-Caucasian descent, the film’s critical reception was heavily skewed towards an interpretation of Aki as white, a fact that further points to her indeterminacy of origin. From the perspective of this viewer, it would have been difficult if not impossible to determine Aki’s mixed ethnicity without the extratextual knowledge of it prior to viewing.

⁷⁹ A traditional animation practice for decades, the keyframing process in pre-digital animation worked by first depicting the extremes of a certain motion, and then filling in the other frames one by one, animating scene by manually changing the position of the subject frame by frame. In digital animation it tends to be used to animate more the more subtle gestures and expressions that can’t be obtained through motion capture. Mirror work also has its origins in pre-digital animation, and brings to bear the weight of a real-world human referent upon the digital image.

zeroes, Aki is actually a somewhat mutant assemblage of human and technical interventions, some of which date back to drawn animation techniques of the 1920s and 1930s practiced by the Fleischer brothers and Disney.

Animation scholars Joanna Bouldin and Mark Langer liken motion capture in computer animation to the use of the rotoscope in drawn animation. For Bouldin, motion capture, like the rotoscope, is a mimetic technology that grants a somatic density and complexity to the animated image by conjuring the co-presence of an absent-but-real body. Following Michael Taussig, Bouldin defines mimesis in this particular context as the material connection between the copy and the original that draws on the “power” of the original, even if realistic similitude is not achieved. Motion capture is thus, literally, “‘captured performance’— the actual body, or at least its trace, held prisoner by the animated.”⁸⁰ This “corporeal haunting” of the animated body by the original one produces an “incongruous, monstrous, cyborg body” that problematizes easy viewer identification, prompting an unsettling reflection upon the ambiguity of the animated body.⁸¹ For Langer, the uncanniness of the rotoscoped or motion-captured image stems precisely from its reference to the “double” of a filmed human actor, the co-presence of drawn image (mechanically or digitally recorded and animated, technologized, inorganic) and living body (organic, natural, “real”), forcing the viewer’s uncomfortable struggle to distinguish whether the body in question is actually “alive.”

Inverting Bruno Bettelheim’s account of the uncanny effects of a robot who

⁸⁰ Bouldin, “Cadaver of the Real,” 12-13.

⁸¹ Bouldin, “Cadaver of the Real,” 14-16.

duplicates human actions, thus proving that a human body can operate without a human spirit, Langer observes that the rotoscoped body forces the disturbing realization that “the inorganic can operate with human spirit, or that the machine can exist with a soul.”⁸² Like rotoscoping, both keyframing and mirror work are traditional animation techniques that map the organic body (or parts of it) onto the animated one. Expedited by the use of shortcut keys to create specific expressions and mouth shapes stored on Sato’s computer, keyframing also interjects the ostensibly natural motion-capture movement with that which is mechanized; thus, the hybrid figure of Aki Ross suggests that the inorganic may at times operate with human spirit, and at other times without it. The strict boundaries of animate/inanimate, biological/technological are troubled on multiple levels, often in several different ways within the same sequence.

While Mori’s notion of the “Uncanny Valley” has given way to vague, often ahistorical theorizations of our uneasy reception of the digital human, Freud’s seminal essay on the uncanny provides a useful framework for interpreting the synthespian’s repressed organic origins in the motion-captured performances of real actors. Freud traces multiple examples and themes of the *Unheimliche* as a once-familiar (and thus, *Heimliche*) archaic fear or fantasy that is repressed but ultimately returns, albeit transformed, disturbingly into view; or, following Schelling’s definition, as “something

⁸² Mark Langer, “The Rotoscope, The Double, and the Uncanny,” 8.

which ought to have remained hidden but has come to light.”⁸³ For Freud, the double is an uncanny figure who can prompt the discomfiting return to an earlier stage of childhood development, “a regression to a time when the ego had not yet marked itself off sharply from the external world and from other people”⁸⁴ and defined by the difficulty of distinguishing between the real and the inanimate. As Tom Gunning and Friedrich Kittler have pointed out, Freud’s use of Otto Rank’s work on a cinematic case study in uncanny doubling (Wegener’s 1913 film *The Student of Prague*) suggests a special affinity between photography, cinema, and the subject’s/actor’s re-produced body as the figure of the double.⁸⁵ This affinity stems in part from the perceived ontology of the photographic image as indexically connected both

⁸³ Sigmund Freud, “The Uncanny,” *The Standard Edition of the Complete Psychological Works of Sigmund Freud, Volume 17*, trans. James Strachey, Anna Freud, Alix Strachey and Alan Tyson (London: Hogarth Press and the Institute of Psycho-analysis, 1953), 241.

⁸⁴ Freud, “The Uncanny,” 236.

⁸⁵ As Gunning asserts, although Freud and Rank trace the lineage of the double back to archaic beliefs in the “detachable” nature of the human soul and the *doppelganger* figure of Romantic literature, “photography furnished a technology which could summon up an uncanny visual experience of doubling, as much as it was capable of presenting facts in all their positivity and uniqueness.” Tom Gunning, “Phantom Images and Modern Manifestations: Spirit Photography, Magic Theatre, and Photography’s Uncanny,” in *Fugitive Images: From Photography to Video* ed. Patrice Petro (Bloomington and Indianapolis: Indiana University Press, 1995), 45. Kittler considers how the figure of the Romantic double in literature has been supplanted by the discomfiting and ever-more pervasive ghostly mirror image of the cinematic double, a transition not openly addressed by Freud: “In order to catch sight of Double, people need no longer be either educated or drunk. Even illiterates, or especially they, see the student of Prague, his lover and his mistress—all of Rank’s ‘shadowy, fleeting scenes’, which as such are already Doubles—as celluloid ghosts of the actors’ bodies.” See Friedrich Kittler, “Romanticism-Psychoanalysis Film: A History of the Double,” *Literature, Media, Information Systems* ed. John Johnston. (Amsterdam: Overseas Publishers Association, 1997), 87.

to its original subject and its viewer, most influentially expressed in Roland Barthes's assertion that

the photograph is literally an emanation of the referent. From a real body, which was there, proceed radiations which ultimately touch me...*A sort of umbilical cord links the body of the photographed thing to my gaze.*⁸⁶

According to this formulation, not only does the filmed/photographed human image represent, as Kittler would argue, a "ghostly" double of the actor's body, but that double is also inexorably connected to the viewer in a fashion highly reminiscent of Freud's formulation of early childhood ego development, wherein distinctions between self and other are distinctly permeable. However, the stakes of this connection and its potentially uncanny effects shift considerably when the "real body, which was there" (or bodies, as it were) co-exists with a technologized, animated body that complicates conventional conceptions of photographic and cinematic indexicality. The careful extratextual management of spectatorial relations to the animated image and its means of production thus becomes crucial to its reception.

Langer has usefully contrasted the different filmic and extratextual strategies employed by the Fleischer brothers and Walt Disney in managing the potentially unsettling effects of rotoscoped animation. He asserts that the Fleischers contributed to a heightened sense of uncanny dis-ease in viewers by foregrounding the real stars (including Louis Armstrong and Cab Calloway) who contributed the live footage for rotoscoping, as well as the

⁸⁶ Roland Barthes, *Camera Lucida*, 81. Emphasis mine.

often freakish, plasmatic drawn bodies mapped over them.⁸⁷ Walt Disney, meanwhile, sought to diffuse any such discomfiting effects through the elision of the actors involved in creating some of its most beloved human characters, including Snow White and Cinderella, omitting referential live-action footage and any acknowledgment in promotional materials. As Langer points out, Disney used the rotoscope to ensure the naturalistic movement and bodily comportment of its more realistic human characters, thus bracketing them off from the animals, contorted villains, and fantastic creatures with which they shared the screen and reinforcing the boundaries of age, gender, and species that the Fleischers delighted in playing with — thus, the less acknowledged about their boundary-blurring hybridity, the better.⁸⁸ Despite its claims on a “new” form of visual expression, I would like to suggest that *Final Fantasy* follows this latter model of dis-ease management practiced by Disney. Contrary to Langer’s assertion that such suppression functions to allay spectatorial anxiety, the film’s critical reception suggests that *Final Fantasy*

⁸⁷ Armstrong appeared both as ‘himself’ and as a rotoscoped, animated character in the 1932 film *I’ll Be Glad When You’re Dead, You Rascal You*, while Calloway does the same in *The Old Man of the Mountain* (1933). Mark Langer, “The Rotoscope, Freakery, and the Uncanny,” (paper presented at the annual Society for Animation Studies Conference, Glendale, California, September 26-29, 2002), 6-7.

⁸⁸ Langer, “The Rotoscope, Freakery, and the Uncanny,” 6-7. In the context of *Snow White* (David Hand, 1937), Disney also employed distinct narrative strategies to ease the potentially unsettling effects of rotoscoped animation. For example, rotoscoping was most frequently used on the Evil Queen, thus masking any unease due to the co-presence of real and animated bodies with narrative unease in relation to the character. Snow White herself only tends to be rotoscoped in those scenes when she’s surrounded by more conventional animated characters (dancing with the dwarves, for example, or cleaning with the help of forest animals), or when she is sharing the screen with the Queen.

actually exacerbates the uncanny effects of this doubled co-presence by attempting to suppress it. Designed to resemble (and even replace) human actors but still limited by certain expressive constraints, driven both by human movement and technological intervention, Aki and her co-stars suggest a heightened slippage between live action and animation that is at play when the animated image aspires to photoreal surface accuracy while attempting to suppress its various organic origins.

Tanine Allison argues that motion-captured performances possess a “digital indexicality” that connects them to the aesthetics and practices of “traditional” media.⁸⁹ Revisiting Peirce’s work on the different orders of signs, Allison emphasizes the notion of “contact” between real and representation that is crucial to indexical signs, rather than strict visual likeness or iconicity:

A photograph is usually understood to be both an index and an icon; that is, it is linked physically to the object via light, and it resembles the outward appearance of the object. Motion capture data, on the other hand, does *not* resemble the pro-filmic event, but does, precisely, “correspond point by point to nature,” one of Charles S. Peirce’s definitions for the index. Some of Peirce’s other examples of indexicality are a weather vane, a rap on the door, a sundial, and a sailor’s rolling gait. Many of these take a different form than the referent. For instance, the wind is invisible, but the vane is a visual sign; the knock on the door is a sound that indicates the physical presence of someone at the door; the walk of the sailor refers back to an experience on a ship. . . . In the case of motion capture, the complex of signs that signifies the performance of the mo-cap artist may not “look like” the performance itself, but it is created through a physical connection and contingent relationship between the sign

⁸⁹ Allison, “More Than a Man in a Monkey Suit,” 326.

and the referent; thus, motion capture participates in a form of indexicality.⁹⁰

For Allison, the nature of motion capture provides indexical “contact” between performer and character, albeit by digital means. (As such, Allison’s theorization of the motion-captured image bears a marked similarity to Bouldin’s assessment its “mimetic” density.) In order to avoid the uncanny dis-ease of the “real body held prisoner by the animated” Bouldin and Langer identify within both rotoscoped and motion-captured animation, Allison suggests that spectatorial engagement with motion-captured performances must be guided by supplementary promotional materials and DVD special features that orient viewers to the safe, traditional origins of digital performance while still flaunting the “newness” of the technology.⁹¹ Put simply, media producers must adopt the promotional tactics of the Fleischer brothers and foreground the “real” bodies involved in the creation of the digital human, but for the sake of naturalizing, rather than unsettling, viewer response.

Final Fantasy’s creators very rarely acknowledged their use of motion-captured performance as a means of ensuring naturalistic character movements,⁹² and when they did, such acknowledgements attempted to elide the significance of the bodies involved. Even the most detailed technical

⁹⁰ Allison, “More Than a Man in a Monkey Suit,” 335.

⁹¹ Allison, “More Than a Man in a Monkey Suit,” 325-341.

⁹² For *Final Fantasy*, this entailed actors in body-hugging black suits covered in reflective markers performing each scene on an enclosed stage, so that the movement of the markers would be recorded by a 16 camera set-up to be utilized by animators in their creation of each performance.

account of the film's production — Jody Duncan's article "Flesh for Fantasy," published in the special effects journal *Cinefex* — features a brief description of the motion capture process, but includes no pictures of or interviews with the motion capture actors. Animators also made it clear that they could (and did) disregard the motion-captured performances at times when they didn't suit how they wanted the character to move or behave, choosing instead to hand-animate or keyframe those scenes instead. There is a brief glimpse of the mo-cap actors at work in the film's DVD special features "making of" documentary, but unlike the film's voice actors, they are not interviewed or even shown in close-up. In contrast to Fleischers's foregrounded celebrities, *Final Fantasy*'s motion-capture actors were unknowns in every respect, seldom shown in promotional media discourses and never interviewed, their actual performances treated as dispersed digital information that could be willfully manipulated by its animator-controller. We were encouraged to believe that what these performers contributed was data, not the mimetic density or indexical contact of their material bodies. While the actual body of the recognizable star who provided the Fleischers's rotoscoped footage was frequently acknowledged and foregrounded in the early Fleischer films via the inclusion of a framing live-action sequence featuring the actor in question,⁹³ the creators of *Final Fantasy* instead boasted of its uniqueness as a film that contained "no real locations, people, vehicles or props," and was "crafted

⁹³ For a full discussion of the Fleischers's foregrounded use of rotoscoped footage in their films of the early 1930s, see Langer, "The Rotoscope, Freakery and the Uncanny."

entirely from the imagination of artists.”⁹⁴ The promotional discourses surrounding *Final Fantasy* instead foregrounded the virtual computer spaces and programs (and their operators) that made Aki and her co-stars possible. Journalistic articles in even the most mainstream publications often featured multi-staged descriptions of the process through which Aki, for example, is first created as a wireframe “skeleton” in Maya Wavefront and then fleshed out with layers of digital muscle and texture-mapped simulations of skin and hair.⁹⁵

I would like to suggest that much of this dis-ease over the “eerie” indeterminacy of these characters’ origins is actually intensified by the discursive attempt to elide the fact that Aki, like many of her overtly “cartoonish” predecessors, is a hybrid of both human and digital/mechanical processes. The obvious indexical connection between performer, recorded image, and spectator apparently severed by *Final Fantasy*’s insistence upon its wholly digital second-order realism, the somatic density and complexity of Aki-as-doubled co-presence is sensed but not wholly understood, rendering it all the more troubling. Cued by *Final Fantasy*’s promotional materials to wonder and worry about whether the real actor will be replaced by a digital simulation, and called upon to scrutinize these figures with a heightened,

⁹⁴ Jiminez-David, “Final Fantasy: An Old Fogey’s Take.”

⁹⁵ See, for example, Wesley Morris, “Will Digital Actors Displace Human Ones?” *The San Francisco Chronicle*, July 22, 2001, Rick Lyman, “Movie Stars Fear Inroads,” Stephen Schaefer, “Is it Live or is it?: *Final Fantasy* takes animation to a whole new level of sophistication,” *The Boston Herald*, July 9, 2001.

“hyperbolic” mode of perception, most spectators expressed their unease with Aki and her co-stars in terms of an uncertainty over how, exactly, these figures are being brought to life. This struggle is evident in reviews of *Final Fantasy*, which grapple with the indeterminacy of these figures: “Too Real Yet Not Real Enough,” proclaims one headline,⁹⁶ while another reviewer deems Aki “an eerie presence that is at once subtly unreal and yet convincing.”⁹⁷ Aki’s movements at times “feel about right” and at others possess “a mechanical quality;” she demonstrates “flickers of emotion” but has “a limited range of expression;” she does not so much digitally transcend the limitations of actual and animated bodies as she does embody them in multiple and unpredictable ways. As Stephanie Zacharek observes,

After you're done marveling at the characters' semirealistic way of moving and the freckles and minor imperfections that dot their skin . . . it's all too easy to get hung up on the things that make them seem clumsy and awkward. When they speak . . . their mouths just can't wrap themselves around the words. They look at each other and their gazes don't quite meet — there's something a little blank, even slightly cross-eyed, about them. Their movements are generally smooth, but there's also something creepily artificial about them: They're a little like an ubermodern cross between traditional Janimation and the old Thunderbirds puppets — kind of close to real, but ultimately just high-tech marionettes.⁹⁸

In likening these unruly bodies to “high-tech marionettes,” Zacharek pointed to the uncanny, doubled co-presence of actual and technological bodies (and

⁹⁶ O’Sullivan, “Final Fantasy: Too Real Yet Not Real Enough.”

⁹⁷ Ebert, “Final Fantasy.”

⁹⁸ Stephanie Zacharek, “Final Fantasy: The Spirits Within,” *Salon.com*, July 13, 2001, accessed May 5, 2012, http://www.salon.com/2001/07/13/final_fantasy/.

thus, “old” and “new” media) that I argue is precisely the source of unease that she and her fellow critics struggled to pin down.

Even a brief consideration of the film itself provides multiple examples of how *Final Fantasy*'s characters enact an ongoing collision between their unnerving surface realism, the natural fluidity of their motion-captured bodily movements, those bodily movements which are keyframed, and the relative fixity of their facial expressions. Action sequences that feature the characters in constant movement tend to provide the most seamless use of motion-capture (such as Aki's preliminary exploration of the wreckage of New York City, and subsequent rescue by the Deep Eyes squadron), while more intimate, dialogue-driven scenes tend to foreground the disjunction between “natural” and mechanical movements. For example, a heated exchange between Aki and her would-be love interest, Captain Gray Edwards, is marked by the dissonance between those actions that play across Aki's entire body (silencing Gray with an aggressive swoop of her arm, an abrupt turn away from him, purposeful strides across the room to resume her work with ruthless speed and efficiency) and those which play across her face (a furrowed brow to express disdain, pursed mouth to signify frustration, raised eyebrows to suggest real or feigned surprise). Rather than uniting with each other and Aki's body language as a whole, Aki's facial expressions function as a kind of semaphore of isolated expressive signs, each very clearly demarcating the emotion to be indicated by the expression in question, but far more evocative of drawn character animation than the desired effects of live-

action, realist performance. A subsequent scene where Aki and Gray actually kiss was met with either laughter or disgust from theatre audiences and derision from critics, reactions that speak to its existence somewhere between the romantic codes of live-action and “cartoon” cinema.⁹⁹

Similarly jarring was the juxtaposition between recognizable character voices (which, in addition to Ming-Na, were provided by well-known actors such as Donald Sutherland and Steve Buscemi) and their rigid digital exteriors. As Elvis Mitchell observed,

The heroic efforts of actors who supply the voices and give melodramatic import to almost every line reading, since the computer-generated galaxy is at stake, provide an eerie contrast to the on-screen characters. The lip movements of the animated figures are slightly slow, so you feel as if you're watching a badly dubbed Japanese creature feature from the 1960's.¹⁰⁰

As was repeatedly noted in the critical reception of *Final Fantasy*, the pairing of star voices and digital actors also brought the expectations of each star's physical appearance to bear upon his or her photoreal digital counterpart, who had in turn been created with the attributes of other recognizable stars in mind. Thus, Alec Baldwin's belligerent voice emanates from the body of Gray (Fig. 8), who resembles a somewhat beefier Ben Affleck, while Steve Buscemi lends his trademark nasal whine to Neil, the Deep Eyes tech whiz who is the spitting image of Jason Priestly.

⁹⁹ Observed unimpressed reviewer Robert Wilonsky of Aki and Grey, “They touch, kiss, caress in zero gravity, but the physical acts never become emotional ones. It's like watching mannequins make out.” Wilonsky, “Flesh for Fantasy.”

¹⁰⁰ Mitchell, “She's Lovely.”

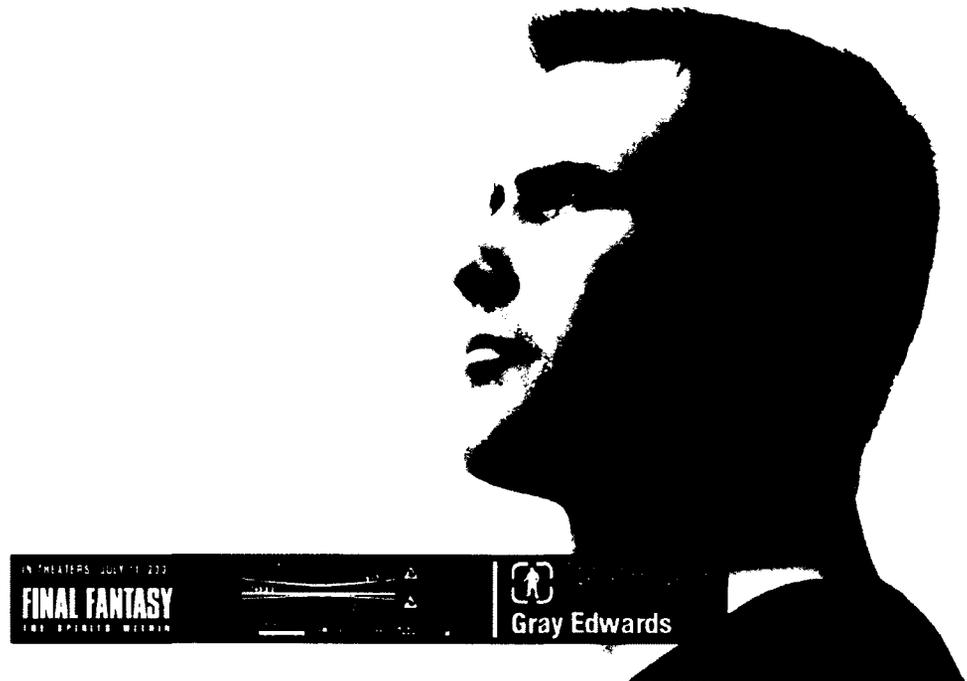


Fig. 8: Gray Edwards

Although not nearly so inflected by a readily identifiable star voice as some of her castmates, the reception of Aki's physical appearance suggests an attempt to de-code her according to established norms of star beauty, most frequently through an observed resemblance to Bridget Fonda, Jennifer Connolly, or some combination thereof. As Dave Kehr noted, the imprint of these established star personas and bodies on these digital actors imbues them with "a certain robotic quality, an eerie disjuncture between voice and body that exaggerates the artificiality of the human figures rather than erasing it."¹⁰¹ The nuances of discernibly human voices and the visual associations they

¹⁰¹ Dave Kehr, "When a Cyberstar is Born," *The New York Times*, November 18, 2001, accessed May 15, 2012, <http://www.nytimes.com/2001/11/18/arts/film-when-a-cyberstar-is-born.html>.

evoke are thus interpreted as adding yet another de-familiarizing layer of material performance to these allegedly virtual characters.

Another telling disjuncture occurs at the formal level of the film's visual grammar, which tends to oscillate between medium and long shots that foreground the fluidity of character movement, and extreme close-ups that fixate on the astounding visual detail and realism of character surfaces, realistic details that are exposed as pure surface when the fixity of the faces on which they appear becomes apparent. (One critic was taken aback by the contrast between "the precise facsimile of stubble on a man's chin, or the dilation of a pupil, or beads of sweat on a brow" and the limited facial expressiveness of the characters, who "tend to talk with the somewhat frozen stiltedness of a stroke victim.")¹⁰² Furthermore, this fetishization of textural realism has interesting consequences for the female digital star, and once again situates her more firmly in line with animation than live-action cinema. Although Aki is periodically subjected to an objectifying gaze, its extreme proximity and attention to surface detail suggests she (or rather, the individual parts that compose her) is being scrutinized as a technological object rather than the female locus of male desire.

The film's narrative even alludes to Aki's corporeally haunted, cyborgian status via its fixation on her infection with alien particles, an infection which, despite its containment within a metal chestplate that minimizes contact to a limited sphere of Aki's organic tissue, begin to

¹⁰² Anthony Quinn, "Post-Einstein Effects, Pre-School Plot," *The Independent*, August 3, 2001.

dominate her dreams and thoughts to such an extent that some around her start to wonder if the alien presence has taken control. I would argue that a similar sense of ambiguity and uncanny dis-ease plagues the viewer as they struggle to discern who or what (or which combination of who and what) may be controlling Aki Ross as a digitally animated character.

Rather than seamlessly replacing “old” media and its filmed/drawn occupants, the “new media” synthespian Aki Ross ultimately points up how newer and more traditional media forms necessarily overlap and mutually influence each other within the contemporaneous context of digital media convergence. I have argued that “what it means to be human” in this context isn’t just informed by the naïve hope or fear that the virtual will supplant the real, or that the digital will subsume the analogue, but rather that the human subject is increasingly defined by the necessity of navigating between “virtual” and “real” worlds, as well as between so-called “old” and “new” media. Ultimately, Aki Ross and her co-stars pointed towards a future wherein cinema could no longer be evaluated as a standalone or even primary media text. The film failed with critics and at the box office, ultimately prompting the closure of Square Picture’s Hawaii studio where the bulk of the character animation took place. As a result, the lights also went out on Sakaguchi’s and producer Jun Aida’s stated goal of having Aki et. al. star in a range of films of different genres. Built on a rather antiquated model of the Hollywood star system, the producers’ vision for its digital stars failed to recognize their potential for cross-media casting. With its origins in a

successful video game franchise, *Final Fantasy* and its “digital stars” were inexplicably cut off from any meaningful connection to their gameric counterparts, and were in many ways a missed opportunity at transmedia expansion.¹⁰³ The chapters that follow will more closely examine the broader industrial and technological framework of media conglomeration and convergence in which digital humans are situated, addressing what is at stake when the digital human must move across media in the context of a larger, vertically and horizontally integrated transmedia franchise. The role of supplementary “extra-texts” in addressing and cultivating an increasingly knowledgeable, discerning and “interactive” transmedia consumer of the digital human will be discussed in the chapter that follows. Using Peter Jackson’s *Lord of the Rings* trilogy and Andy Serkis’s Gollum as my primary case study, I examine how media producers put the audience back in the picture at the same time as they reinstate the centrality of the “real” actor in the creation of the digital human.

¹⁰³ Interestingly, Square Pictures demonstrated far greater transmedia savvy with their final project, “The Final Flight of the Osiris,” a ten-minute CGI short released as part of *The Animatrix*, a nine-part collection of animated films that made up the prelude to *The Matrix Reloaded*. Jenkins points to *The Matrix* franchise as a prime example of the possibilities and limitations of transmedia storytelling in the age of media convergence. See Jenkins, *Convergence Culture*, 93-130.

CHAPTER THREE

The Audience Stays in the Picture: Digital connoisseurship and convergence-era media consumption

The hyperbolic narrative of human replacement and radical media change that surrounded the *Final Fantasy*-era synthespian failed to acknowledge how media consumers coming into contact with digital human characters do so within a wider reception context increasingly altered by what Thomas Schatz terms the “trinity of post-industrial forces that begat Conglomerate Hollywood — i.e. conglomeration, globalization, and digitization.”¹ This chapter investigates several significant industrial factors shaping the shifting reception of the digital human over the past decade, setting the stage for the analysis of these figures that follows in subsequent chapters. It provides a brief overview of the formation of contemporary Conglomerate Hollywood in the second wave of media conglomeration that began in the 1980s and continues to this day. I then closely examine the proliferation of technician and “how-to” discourses surrounding digital imaging technologies and consumption practices embedded in Conglomerate Hollywood’s preferred means of cinema distribution and promotion, focusing mainly on DVDs and their expansive supplementary materials. Using Peter Jackson’s *Lord of the Rings* trilogy (*The Fellowship of the Ring* [2001], *The Two Towers* [2002], and *The Return of the King* [2003]) as my primary case study, I argue that the careful extratextual management of what

¹ Thomas Schatz, “The Studio System and Conglomerate Hollywood,” in *The Contemporary Hollywood Film Industry* Eds. Paul McDonald and Janet Wasko (Malden, MA; Oxford: Blackwell Publishing Ltd. 2008), 39.

Allison terms their “digital indexicality” informs the transformation of the digital human into a figure that is exhaustively evaluated, understood, and, at times, even operated by the spectator-consumer. I consider how DVDs facilitate an “interactive” mode of repeat consumption that encourages knowledgeable and empowered viewing formations in relation to the digital human. In particular, I examine how the prevailing extratextual narrative of actor Andy Serkis mastering and even influencing the digital technology used to create the hybrid performance of Gollum parallels that of the interactive, convergence-era consumer mastering the processes and protocols of vertically and horizontally-integrated digital media consumption.

Just as Serkis’s digital stardom hasn’t granted him full access to his choice of starring roles, so too must the active or interactive consumer accept the limitations of his or her empowerment. By claiming to place the consumer in control of newly pervasive digital technologies and media, these discourses encourage a specific kind of engagement geared towards the exhaustive consumption of all facets of and character iterations within a given franchise. As Henry Jenkins contends, the relationship between media producers and consumers within convergence culture is defined by a constant tension between the top-down efforts of media producers to cultivate highly-engaged consumers of sanctioned content, and the bottom-up efforts of media consumers to actively define and shape the kinds of media experiences they wish to have.² Media producers may benefit financially from empowering consumers with extensive

² Jenkins, *Convergence Culture*, 18-19.

technical, aesthetic and narrative knowledge, but they may also become beholden to the growing demands and expectations of such knowledgeable consumers, as will be explored further in Chapters 4 and 5. While *Final Fantasy* enacts an acknowledgment and subsequent struggle with the changes wrought by digitization, the latter franchises I examine narrativize our coming to terms with new digital subjectivities shaped by altered modes of address and media consumption. If anything, the makers of these latter films and their transmedia spin-offs don't give enough credit to the spectator-consumer's new ability to shift between viewing modes and platforms. In attempting to erase distinctions among media forms, they underestimate the consumer's ability and desire to negotiate and navigate between disparate media, one of the greatest pleasures of transmedia consumption.

Media conglomeration, convergence, and the digital human in the “new” New Hollywood

In order to contextualize the shifting presentation and reception of the digital human, it is necessary to take a brief detour through the industrial origins of contemporary Conglomerate Hollywood, which began to take shape in the first wave of conglomerate takeovers of the major studios in the 1960s.³ This

³ As will be discussed further below, despite the 1948 Paramount Decrees (which forced studios to divest of the theatre chains and distribution arms that allowed them a vertically-integrated monopoly of all levels of film production and distribution), conglomerate ownership has largely allowed film studios to return to a state of vertical and horizontal integration. In this reintegrated configuration, studios' conglomerate owners control and profit from the various release windows of a given film (vertical integration) as well as its transmediation across multiple, conglomerate-owned ancillaries (horizontal

new corporate ownership of Hollywood began a steady de-prioritization of the theatrically released film as the primary source of industry revenue, giving way to new models of media production and consumption involving various release windows for the film itself, as well as ancillary, cross-media spin-offs. The widespread digitization of distribution methods has multiplied and diversified these available release windows, including DVDs, Video-On-Demand, and digital cable television. At the same time, digital imaging processes leveled the aesthetic boundaries separating media forms within a given franchise. (This is evident, for example, in the sharing of digital assets between films and digital games.) Richard Grusin argues that these changes have drastically altered prevailing media consumption protocols and habits, giving way to a “cinema of interactions” that addresses a newly “interactive” and engaged consumer who is a far cry from past notions of the passive cinema spectator.⁴ Chuck Tryon observes that the proliferation of television, computer, and handheld screens on which we may now consume media content has a profound impact on reception practices. At the same time, television itself has become increasingly “computerized” via interactive technologies including the DVR and live-streaming services such as Netflix. Tryon asserts that

integration). As Jenkins observes, “What have emerged are new strategies of content development and distribution designed to increase the “synergy” between the different divisions of the same company. Studios seek content that can move fluidly across media channels.” Henry Jenkins, “Quentin Tarantino’s Star Wars? Digital Cinema, Media Convergence, and Participatory Culture,” in *Rethinking Media Change: Aesthetics of Transition*, eds. Henry Jenkins and David Thorburn (Cambridge, Mass.: MIT Press, 2002), 284.

⁴ Grusin, “DVDs, Video Games and the Cinema of Interactions,” 209-221.

the computer is increasingly conditioning the screen experience itself, as film fans are encountering paratextual materials about the films they watch via digital media. More crucially, both portable media players and computer screens address an interactive viewer. *In fact, classic terms such as viewer, spectator, and audience may not offer the most precise terminology for describing our new relationship to the screen . . .*⁵

Building on *Homo Ludens*, anthropologist Johan Huizinga's landmark study of the cultural importance of play,⁶ Bernard Perron uses the term *spectator ludens* to describe this new relationship, and the increasingly interactive and playful or "ludic" nature of spectatorial engagement with contemporary cinema it facilitates.⁷ This new mode of engagement has a crucial role in shaping the contemporary reception of the digital human, and can only be understood by considering its industrial origins within Conglomerate Hollywood.

During the first wave of conglomeration in the late 1960s, large, broadly diversified corporations acquired film studios in order to further expand their already wide-ranging holdings, seizing the opportunity to get in on the emerging "leisure" market (and take possession of the studios' prime real estate and extensive film libraries in the process). With its origins in the auto parts and electronics industry, Gulf and Western's corporate strategy for entrepreneurial success in acquiring Paramount in 1966 was typical of other such conglomerates

⁵ Chuck Tryon, *Reinventing Cinema*. 7. Emphasis mine.

⁶ Johan Huizinga, *Homo Ludens*, Boston: Beacon Press, 1950.

⁷ See Bernard Perron, "Pleins Jeux Sur Le Cinéma Contemporain," *Cinéma contemporain: état des lieux* (L'Harmattan, Paris: Collection Champs Visuels, 2004), 293-308.

at the time, using leveraged buyouts to control interests in a range of profitable, unrelated enterprises. As Paul Monaco observes

[t]he takeover of one of the Hollywood majors by a corporation that had no prior experience or financial interest in the movie industry marked a dramatic shift in what Hollywood was and how Hollywood would carry out its business in the future.⁸

This first wave of conglomeration situated Hollywood studios within corporations largely unfamiliar with the entertainment industry, such as Kinney Shoes, while a second wave of media-focused conglomeration that began in the 1980s utterly transformed the very nature and structure of that industry according to broader corporate interests. This second wave of media conglomeration placed film studios within vertically and horizontally re-integrated corporate structures designed to maximize profits across a range of (mostly conglomerate-owned) exhibition contexts and ancillary media. Still ongoing, it has given rise to the present-day Big Six media conglomerates (GE-NBC-Universal, Disney, News Corp, Viacom, Time Warner and CBS), as well as Sony, the hardware and electronics manufacturer turned major media conglomerate that owns Sony Pictures. Douglas Gomery cites Steve Ross's transformation of WCI into Time Warner as exemplary of post-1980s media conglomeration, with Ross's expansion into cable TV (including premium

⁸ Paul Monaco, *The Sixties: 1960-1969*. (New York: Charles Scribner's Sons, 2001), 31. Although the 1960s marked the most concentrated (and thus "dramatic") period of corporate takeovers, these acquisitions had some precedents in studio-era Hollywood; for example, RKO was bought by financier Floyd Odlum in 1942, and then subsequently bought out by General Tire in 1955.

movie channel HBO) as a means of exhibiting Warner Bros. films marking a return to total vertical integration:

(Ross) sought to take greater and greater advantage of the power which vertical integration offered: reducing costs of sales and transactions, and thereby increasing profits. His vertically-integrated corporation would sell films to 'itself', and thus not have to absorb the expenses associated with bidding for product from others.⁹

Mega-mergers such as that which forged Time Warner united studios with an unprecedented range of distribution channels and their attendant release windows, including the various stages of television broadcast, domestic and foreign markets, and home video. As a result, most present day conglomerates are in a state of vertical integration, controlling everything from the initial production to the final distribution of media content.¹⁰

Within this vertically integrated conglomerate structure, studios can now maximize earnings of feature films that would have lost money as stand-alone theatrical releases. As late as 1980, the bulk of studios' worldwide revenues still came from movie theatres. At that point, no matter how big a hit a film proved to be, studios were still losing money on their overall movie business, even with the release of such blockbuster hits as *Jaws* (Steven Spielberg, 1975) and *Star Wars* (George Lucas, 1977). Edward Jay Epstein points out that what changed

⁹ Douglas Gomery, "The Hollywood Blockbuster: Industrial Analysis and Practice," in *Movie Blockbusters*, ed. Julian Stringer (New York; London: Routledge, 2003), 80. In many ways, MCA's acquisition of Universal in 1959 marked a kind of precursor to this second-wave media conglomeration; not only did it unite MCA's incredibly successful talent agency with a film studio, but it was also the first company to achieve the integration of its film and television production.

¹⁰ For an overview of the current media ownership structures of the major media conglomerates, see <http://www.freepress.net/ownership/chart/main>.

was not a dramatic upswing in the quality of the movies being produced, but rather the rapid expansion in home film viewing that came as a result of cable networks, the VCR, and, more recently, the DVD and various on-demand delivery systems. Studios were ideally situated to capitalize on this new market, either by re-releasing their films through their integrated home entertainment divisions, or selling the licensing rights to their film libraries to outside bidders. In this revamped market, Epstein contends, “the couch potato is now king.”¹¹ Theatre box office revenues now recover roughly half of what studios spend producing, distributing and marketing their crop of films. While this would have meant certain bankruptcy in the days of the studio system, studios in the age of media conglomeration no longer expect to earn money from their theatrical releases, since the bulk of their profits come from licensing their film libraries for home viewing. By 2007, studios were taking in almost four times the revenue from home entertainment as from theatrical releases. In that year the six major studios only made \$8.8 billion in revenue from their worldwide theatrical releases, but earned \$34 billion in revenue from home entertainment, with \$17.9 billion coming from DVD sales and \$16.2 billion from television licensing (including pay TV and pay-per-view).¹²

DVD sales declined following their peak in 2005, thanks in part to an influx of new digital modes of home viewing, only some of which contribute

¹¹ Edward Jay Epstein, “The Secret Numbers,” *The Hollywood Economist*, January 6, 2010, accessed November 10, 2011, <http://thehollywoodeconomist.blogspot.com/2010/01/secret-numbers.html>.

¹² See Epstein, “The Rise of the Home Entertainment Economy,” accessed November 10, 2011, <http://www.edwardjayepstein.com/MPA2007.htm>.

directly to conglomerate profits. Despite this decline, they still constitute the bulk of studio revenues, earning just over \$16 billion in 2009.¹³ This is largely due to the “sell-through” market that has made DVDs far more profitable than their VHS predecessors. In the late 1990s, getting consumers to stop renting films became a major goal of the industry, since selling their films to video stores only resulted in one sale rather than multiple sales to multiple consumers. Coinciding with the launch of the DVD format in 1997, the retail cost of purchasing films declined considerably. Most DVDs sold for the low price of \$20, for which viewers received a higher quality image and a multiplicity of additional features and viewing options. The costs associated with reproducing, advertising and marketing DVDs are minimal, so DVD sales have provided huge bottom-line profits for studios. These profits offset the massive losses from the film’s theatrical releases. Meanwhile, licensing studio film libraries for television viewing continues to be lucrative. Epstein provides a revealing snapshot of the Time Warner library:

It has more than 45,000 hours of feature movies, cartoons and TV episodes, dubbed or subtitled in more than 40 languages, that it licenses to pay-TV, cable TV, satellite telecasters and television stations in more than 175 countries. These titles are often bundled in take-it-or-leave-it packages (a practice that is prohibited by U.S. anti-trust laws in distributing movies to theaters), which helps optimize profits. In 2009, just the television distribution part of this operation brought in more than \$2 billion, according to one source at Warner Brothers. [sic] *A revenue stream this lucrative, even after paying residuals to guilds, labor and other participants, would be enough to pay for most, if not all, the costs of Warner Brothers's [sic] new movies.*¹⁴

¹³ See Epstein, “The Rise,” <http://www.edwardjayepstein.com/MPA2007.htm>.

¹⁴ Epstein, “The Secret Numbers.” Emphasis mine.

In this new context, says Thomas Elsaesser, the film text itself has become “a billboard stretched out in time, designed to showcase tomorrow's classics in the video stores and the television re-runs.”¹⁵ Epstein likens the new corporate structure of Conglomerate Hollywood to a “clearinghouse” that maximizes profits, not through financially responsible film production and theatrical exhibition, but by creating intellectual property that can be licensed in other media over long periods of time, both in subsequent release windows and complimentary transmedia tie-ins.¹⁶ In this revamped market, Epstein contends, box office success primarily serves as a successful debut for the different iterations of the original film, since “theatrical releases now serve essentially as launching platforms for licensing rights, much like runways at haute couture fashion shows.”¹⁷ As Jenkins observes,

Following the high concept logic that has dominated the American cinema since the 1970s, production companies favoured films with pre-sold content based on material from other media (“books”); simple, easily summarized narrative “hooks”; and distinctive “looks,” broadly defined characters, striking icons and highly quotable lines. This “books, hooks, and looks” approach required the ability to construct ancillary markets for a successful film or television program. Increasingly, however, it has become difficult to determine which markets are ancillary and which are core to the success of a media narrative. This process may start with any media channel, but a successful product will flow across media until it becomes pervasive

¹⁵ Thomas Elsaesser, “Everything Connects, but Not Everything Goes,” in *The End of Cinema As We Know It: American Film in the Nineties*, Ed. Jon Lewis (New York: New York University Press, 2001), 11.

¹⁶ Epstein, *The Big Picture*, 13.

¹⁷ Epstein, *The Big Picture*, 20.

within the culture at large — comics into computer games, television shows into films, and so forth.¹⁸

Audiences have therefore become consumers of cinema as what Grusin terms a “distributed” media artifact that can be experienced, engaged and interacted with in a number of ways and on a number of different occasions, as well as, in many cases, a transmedia franchise that demands the consumer’s navigation and exploration across multiple media forms.¹⁹

“Control, own and exploit”: Horizontal integration and cross-media intellectual property in Conglomerate Hollywood

In recent years, media conglomerates rapidly consolidated their ability to profit from cinema-as-software across a range of media platforms, in many cases by adjusting their own corporate structures to achieve horizontal, in addition to vertical, integration. For example, over the past decade most conglomerates created in-house “interactive” departments that work closely with film studios to expand a particular piece of intellectual property into a range of interactive digital games and virtual worlds. Randy Nicholls observes that over the past 40 years Hollywood approached its relationship with the digital games industry in two ways. In good financial times and when video game profits are up, Hollywood seeks active control and ownership of the games industry. When profits are down, studios are more inclined to license their film content to

¹⁸ Jenkins, “Digital Cinema, Media Convergence, and Participatory Culture,” 284.

¹⁹ Grusin, “DVDs, Video Games, and the Cinema of Interactions,” 209-221.

outside game developers.²⁰ Since, until quite recently, the video game industry has been defined by an ongoing cycle of boom and bust, so too has Hollywood's direct involvement with it ebbed and flowed. When video games first rose to popularity in the late 1970s and early 1980s, Warner Communications acquired Atari with the goal of producing its own movie-game spin-offs, only to divest themselves of the troubled game and console maker following the industry Crash of 1983. Similarly, the mid-1990s resurgence of the industry prompted a wave of major studios to launch their own game development units, many of which faltered due to Hollywood's misunderstanding of how to make successful games.

Over the past decade Hollywood once again sought active control of the games industry, this time with an apparent effort to let the game developers it acquires teach them how to make viable movie-game spin-offs. Interactive divisions that were once mere subsets of conglomerates' larger consumer products divisions, responsible solely for licensing game rights to external developers and publishers, have become legitimate producers and distributors:

Hollywood isn't playing around when it comes to competing for a piece of the \$20 billion videogames biz. While every major studio has a growing games group on the lot, Warner Bros. and Disney in particular have opened up their wallets over the past several years to buy up successful publishers that can quickly get them into the game of releasing interactive titles featuring their most popular characters and franchises. In contrast with the traditional licensing pacts that studios made with videogame

²⁰ Randy Nichols, "Ancillary Markets – Video Games: Promises and Challenges of an Emerging Industry," in *The Contemporary Hollywood Film Industry*, eds. Paul McDonald and Janet Wasko (Malden, MA; Oxford: Blackwell Publishing Ltd. 2008), 133.

publishers in the past, where much of the creative was handed over to an outside publisher, *the goal these days is to build a library of games that the studios can control, own and exploit themselves.*²¹

For example, by 2010, Disney had acquired a stable of developers (including Playdom and mobile game-focused Tapulous) ideally suited to expand their presence in the child and teen-friendly realms of social media-based games and persistent online worlds, such as those based on their *Pirates of the Caribbean* and *Cars* franchises. In 2007, Warner Bros. Interactive (WBI) bought developer TT Games for its success with the *LEGO Star Wars* and *LEGO Indiana Jones* games, an acquisition that enabled WBI to give the blocky, nostalgic LEGO treatment to two of Time Warner's highest-profile franchises, *Batman* and *Harry Potter*.²²

Similarly, after the surprise success of Rocksteady Studios' *Batman: Arkham Asylum* (2009), WBI purchased Rocksteady in order to create a more extensive and heavily promoted follow-up game, *Arkham City* (2011). WBI's conglomerate owner took a much more direct promotional and cross-promotional role through tie-in toys from Mattel, a comic book from Time Warner-owned DC comics, and a soundtrack courtesy of in-house record label WaterTower Music. (The game's launch "is something all of our divisions internally are participating in," said WBI president Martin Tremblay of

²¹ Marc Graser, "Studios ramp up videogame ambitions: Disney and Warner Bros. lead charge," *Variety*, August 14, 2010, accessed October 8, 2011, <http://www.variety.com/article/VR1118022921?refcatid=1079&printerfriendly=true>. Emphasis mine.

²² Graser, "Studios ramp up."

conglomerate parent Time Warner's horizontally-integrated approach to *Arkham City's* release.)²³ The game greatly expands the Batman universe depicted in Christopher Nolan's most recent series of films, featuring additional characters who point players to further transmedia consumption of Batman comics and animated films.²⁴ In each of these scenarios, the conglomerate parent retains all of the profits from the game and its assorted spin-offs, rather than just a licensing fee, and is able to maintain a greater degree of creative control over the finished product. As WBI president Martin Tremblay explains,

Now that we have taken Batman back home and are self-publishing, we are taking care of it and treating it the same way other publishers are treating their own (intellectual property) We are treating Batman as one of the big pillars of our company as we go forward.²⁵

Furthermore, as the Time Warner example illustrates, other product divisions of the conglomerate may also be mobilized to further exploit the IP, while conglomerate-owned media outlets and websites provide a means of promoting (Fox's IGN, Time Warner's Flixster) and even distributing (Time Warner's GameTap) their own game content. This move towards horizontal integration couldn't be more timely, since interactive digital games have become one of the most vital sources of both revenue and consumer engagement for their controlling media conglomerate. Brad Globe, head of DreamWorks consumer products division, observes that

²³ Marc Graser, "Batman: Arkham City Game Widens Franchise," *Variety*, October 13, 2011, accessed October 12, 2011, <http://www.variety.com/article/VR1118044346>

²⁴ Some of these characters can only be unlocked by completing the game once.

²⁵ Graser, "Batman."

the interactive component of merchandise is the single most important part of the program now. Once you have millions of games out there and the kids are playing, it reinforces the brand. Unlike T-shirts and toys, these games capture the essence of the storyline and the personality and characters: you're interacting with them, they're coming to life. It's an extension of the movie experience.²⁶

On those occasions when studios manage to produce a game that represents a credible extension of the movie experience, the results can be very lucrative indeed. For example, the game spin-off of *Spider-Man: The Movie* (Treyarch, 2002) earned a whopping \$150M in revenues, while the interactive adaptation of *Lord of the Rings: The Two Towers* brought in just over \$100M. Robert Alan Brookey points out that, of the top-ten highest grossing films of 2006, eight of them featured video game releases, as did seven of the top ten in 2007.²⁷ A game released prior to a film's launch doesn't just serve to promote the film. Since gameplay can extend over the course of days and even weeks, a strong game spin-off can also help fill the gap between the film's theatrical release and home-viewing release, keeping franchise IP in the public eye and re-purposing franchise promotional materials at minimal cost to conglomerate owners. Conglomerate Hollywood's most recent move towards horizontal integration thus seeks to capitalize on the promotional power of movie-licensed games as well as their potential for return on investment.

²⁶ Kristin Thompson, *The Frodo Franchise: The Lord of the Rings and Modern Hollywood* (Berkeley; Los Angeles: University of California Press, 2007), 232-233.

²⁷ Robert Alan Brookey, *Hollywood Gamers: Digital Convergence in the Film and Video Game Industries* (Bloomington: Indiana University Press, 2010), 4-5.

DVDs, connoisseurship and the “digital cinema of interactions”

In the revamped context of Conglomerate Hollywood, cinema now belongs to a larger, multi-faceted chain of production and distribution designed to maximize the revenues flowing through both vertical release windows and horizontal ancillaries into the conglomerate clearinghouse. In this era of what Grusin terms “distributed cinema,” film extends across various media incarnations, including (often multiple) DVD releases, video games, online virtual worlds, websites and soundtracks, all of which, Grusin contends, mutually influence, refashion, and remediate one another.²⁸ The couch potato may now be king, as Epstein suggests, insofar as the domestic sphere now dominates media spending and consumption, but the inert passivity associated with the term “couch potato” no longer squares with the way contemporary spectator-consumers must actively navigate the diverse range of texts and technologies that now typify cinema in the age of software. Along the way, consumers are guided by a range of conglomerate-sanctioned and fan-produced discourses encouraging masterful engagement with the digital technologies crucial to its dispersion — be it in the form of “special edition” DVDs that require hours of navigation and dedicated viewing time to “unlock” all of their special features and extras, the video production diaries and preview footage some filmmakers post online prior to a film’s theatrical release, or the digital imaging processes, so spectacular on the big screen, made available for repeat

²⁸ Grusin, “DVDs, Video Games and the Cinema of Interactions,” 213.

home viewing alongside additional, supplementary explanations of the technical wizardry involved in their creation. As Pierson, Ndaliansis and Barbara Klinger argue in different contexts and as acknowledged in relation to CGI spectatorship in Chapter 2, the widespread domestication of digital home exhibition, gaming and media consumption technologies ushered in alternate modes of audience engagement and reception that typify “an intensity of media literacy never before witnessed in the history of cinema.”²⁹ In relation to digital home exhibition, Klinger asserts that

[a]s a savvy decoder of a text's mysteries, the viewer becomes something of an authority—an intrepid explorer who has discovered a terra incognita and mapped every path . . . mastery is a steadfast component of home film reception in the digital era . . .³⁰

Domestic home viewing cultures seek to cultivate an aura of connoisseurship around the shiny new hardware and software central to digital home exhibition at the same time as they encourage masterful engagement with the digital imaging processes and access protocols so crucial to showcasing the capabilities of this technology. For example, Klinger deems the digital-effects-driven blockbuster the “perfect DVD movie,” since such films are so ideally suited to the type of aesthetic scrutiny and technical explanation used to both cultivate and complement this new mode of spectatorial mastery. By these criteria,

²⁹ Ndaliansis, *Neo-Baroque Aesthetics*, 4.

³⁰ Barbara Klinger, *Beyond the Multiplex: Cinema, New Technologies and the Home* (Berkeley; Los Angeles: University of California Press, 2006), 161.

films are rated not only for how they fulfill digital standards of sound and picture, but for how their re-issues realize to the fullest extent the physical capacity of the disc itself, especially when this capacity is deployed to render DVD as an autonomous art form.³¹

Klinger points to the extended edition DVD of James Cameron's *Terminator 2: Judgment Day* (released in 2001) as an example of the DVD's new artistic autonomy and the knowledgeable spectatorial engagement it solicits:

(e)ach chapter embarks on painstaking explanations of each stage of the process, educating viewers about filmmaking, while letting them in on the secrets of the artistry and processes involved. At the same time, given the precise types manipulation DVD technology affords, viewers attain a level of control they are accustomed to having with the computer mouse and the selection menus available on the Internet, associating DVD with more standard modes of interactivity and the film in question with more things digital.³²

The "perfect DVD" movie thus encourages digital connoisseurship in two ways: by providing a superfluity of technical knowledge that functions to educate viewers in their aesthetic apprehension and appreciation of digital imaging technologies; and by foregrounding how cinema, as a newly digitized and dispersed artifact, can supposedly be manipulated and interacted with.³³ Not

³¹ Barbara Klinger, "The DVD Cinephile: Viewing Heritages and Home Film Cultures," in *Film and Television After DVD*, eds. James Bennett and Tom Brown (New York: Routledge, 2008), 38.

³² Klinger, "The DVD Cinephile," 37.

³³ Of course, DVDs don't possess a monopoly on the cultivation of cinema connoisseurship, since they continue a tradition of constructing and appealing to knowledgeable spectators established in a range of diverse promotional and exhibition practices including film festivals, specialized cable channels such as Turner Classic Movies and HBO, and director's cut re-releases. However, DVDs do possess a somewhat privileged relationship to digital image connoisseurship, since they partner new knowledge formations regarding how the computer-

coincidentally, such films also justify the kind of serial consumption and repeat viewing that studios require to ensure an ongoing flow of profits into their conglomerate clearinghouses.³⁴ As Klinger asserts, “perfect DVD movies” provide viewers with new content that encourages careful re-examination of the original film at the same time as they encourage new modes of interacting with the film text that remediate the control protocols of computer navigation.

Robert Alan Brookey and Robert Westerfelhaus posit an “intratextual” relationship between primary and secondary texts featured on a DVD release, arguing that this intratextuality blurs the distinctive space and time of each text. According to Brookey and Westerfelhaus, DVD supplementary materials or “extra-texts” use insider knowledge and excess information as a means of adding value to the original film, thereby justifying its non-theatrical consumption, even if prospective viewers have already seen the film during its theatrical run. As a result,

the DVD is perhaps the ultimate example of media industry synergy, in which the promotion of a media product is

generated image was produced with high quality image resolution and the ability to review, scrutinize and “interact” with the computer-generated image. As Klinger asserts, viewers tend to “associat[e] the DVD with more standard modes of interactivity and the film in question with more things digital.” Klinger, “The DVD Cinephile,” 37.

³⁴ While it’s impossible to quantify the number of spectators who consume DVD special features exhaustively, the staggering sales of “special edition” DVDs compared to film-only releases suggests that most DVD consumers engage with additional DVD content in some fashion. In this sense, the DVD can be viewed as expanding access to and interest in the type of technician discourses once only associated with die-hard cinephiles and special effects geeks. See, for example, “How many of us actually watch all the extras a DVD has to offer?” posted in *Home Theater Forum*, accessed July 6, 2012, <http://www.hometheaterforum.com/t/45025/how-many-of-us-actually-watch-all-the-extras-a-dvd-has-to-offer>.

collapsed into the product itself. Judicious use of the DVD-extra-text can exploit this intratextual advantage as a means of promoting the film.³⁵

As Jo T. Smith points out, the control and mastery DVDs promise is therefore highly circumscribed according to this promotional mandate and the overall experience media producers want consumers to have, and indeed, the very promise of control itself can serve as a kind of marketing strategy.³⁶ Whatever their intentions, however, these strategies have ultimately had a profound impact on contemporary reception practices, cultivating discerning, demanding consumers well-equipped to apprehend, understand and even manipulate multifaceted media franchises and their attendant digital technologies, making the desired connections between the various nodes of cinema as an increasingly distributed artifact.

Grusin contends that, contrary to the widely held belief that digital media create an alternative reality or “cyberspace” of pure simulation that envelops and disorients the spectator, digital media such as DVDs address knowledgeable,

³⁵ Robert Alan Brookey and Robert Westerfelhaus, “Hiding Homoeroticism in Plain View: The *Fight Club DVD* as Digital Closet,” *Critical Studies in Mass Communication*, 19 (1) 2002: 23.

³⁶ Jo T. Smith, “DVD Technologies and the Art of Control,” in *Film and Television After DVD*, eds. James Bennett and Tom Brown (New York: Routledge, 2008), 140. Smith contends that, “(i)n these appeals to a diverse range of consumers, the media industry produces new orders of consumption through incremental modulations across established consumer categories and taste formations. These appeals include the promise of greater control over the audiovisual event, the most obvious example being the DVD’s promise of greater consumer interactivity. These appeals to some form of interaction from the DVD user intensifies the relationship between consumer and media object”

“interactive” users who act upon digital media as though they are real. For Grusin,

what is truly significant about our current moment of digital media is not the Baudrillardian suggestion that reality doesn't exist, that the real is only a simulation, but something very different — the ways in which we customarily act in a fashion that suggests that digital media, computer programs, or video games, *are* real. The digital cinema of interactions entails what I think of as an aesthetic of the animate, in which spectators or users feel or act as if the inanimate is animate, in which we simultaneously know that the mediated or programmed are inanimate even while we behave as if they were animate.³⁷

As I've acknowledged, while media scholarship to date has rightly identified certain affinities between contemporary digital cinema spectatorship and the consumption of what Tom Gunning has termed the early “cinema of attractions,” few scholars have adequately contextualized contemporary media consumers according to the complex web of digital media in which they are now situated as both addressees and active participants. As discussed in Chapter 2, Andrew Darley theorizes a naïve, incredulous spectator in thrall to digital media spectacle, while even Gunning himself elides a close consideration of contemporary spectatorship when he argues that the cinema of attractions has returned, albeit “tamed” by classical narrative, in the context of the effects-driven blockbuster.³⁸ By situating the contemporary spectator-consumer within what he terms a broader, distributed “digital cinema of interactions” (of which DVDs are one facet), Grusin provides a necessary corrective to this ahistorical

³⁷ Grusin, “DVDs, Video Games, and the Cinema of Interactions,” 210-211.

³⁸ See, for example, Tom Gunning, “The Cinema of Attractions: Early Film, Its Spectator and the Avant-Garde,” in *Early Cinema*, ed. Thomas Elsaesser (London: BFI, 1990), 56-62.

tendency. Rather than oscillating between a state of belief in and decipherment of the digital image that simply mirrors the incredulity of Gunning's early cinema spectator, Grusin contends that the "aesthetic of the animate" inherent in digital media addresses consumers who can deftly reconcile their knowledge that the media object in question is inanimate with a mode of engagement that suggests such objects are "real."³⁹

For example, this "aesthetic of the animate" is foregrounded in DVD releases such as *Memento* (Christopher Nolan, 2000) and *Time Code* (Mike Figgis, 2000), which call upon viewers to play a constitutive role in the re-ordering or re-working of the text, even though the films in question are ultimately limited by the bounded narrative and production constraints of their source material. Figgis's innovatively shot *Time Code* features four interwoven narratives shown simultaneously in each quadrant of the screen, and its DVD enables the viewer to intervene by selecting which audio track(s) they focus on over the course of its 90-minute running time. In the case of *Memento*, an initial 2001 DVD release nearly devoid of special features, save an interview with director Christopher Nolan and a small photo gallery of production images, was followed by a two-disc, widescreen Limited Edition in 2002. The Limited Edition release included the type of extras consumers had already come to expect from DVDs, including a director's commentary track from Nolan, a Sundance Channel documentary about the film's production, and a copy of "Memento Mori," the Jonathan Nolan short story on which the film is based.

³⁹ Grusin, "DVDs, Video Games, and the Cinema of Interactions," 215-216.

Most notable, however, was the interface through which users accessed the disc's content. Designed as a series of psychiatric examinations, the Limited Edition's DVD menus demand that viewers choose certain words, images, and multiple choice answers in order to access not just the disc's special features, but the film itself. (The DVD itself is packaged to resemble an ostensibly "real," analogue artifact — our amnesiac protagonist's case file from a mental institution, with scribbled notes from Leonard and his doctors on the packaging that provide clues to navigating the DVD. See Fig. 1)

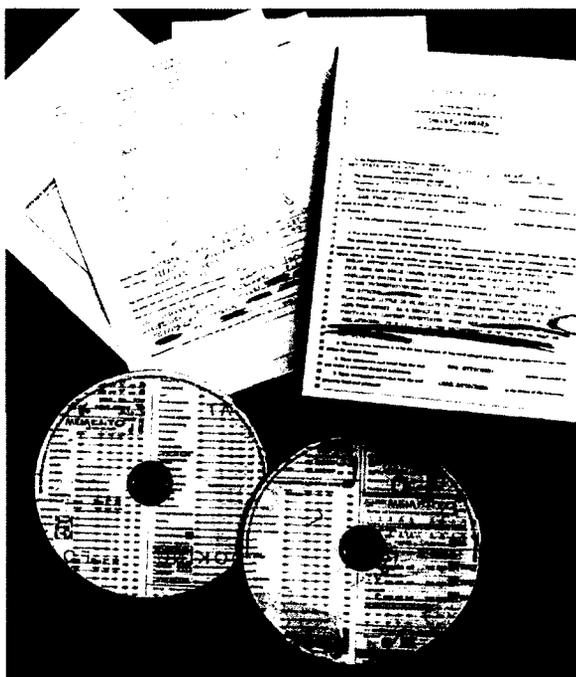


Fig. 1: *Memento* Limited Edition DVDs and packaging

The most challenging of these examinations unlocks a version of the film that re-orders its famously "backwards" narrative chronologically, giving viewers the impression that they have fundamentally altered the structure of the film when, in fact, they have selected another, pre-determined and producer-sanction version that legitimates serial consumption. (At the time of its theatrical

release, *Memento* was discussed as a film that would need to be consumed both in its “original” and “chronological” versions — hence, its theatrical and DVD versions — in order to be fully understood.) The DVD’s digital format thus allows the re-ordering of the film text to create the impression of an ostensibly “new” text — in the case of *Memento*, a technique that called upon viewers to mobilize a methodical, gamer-like techno-textuality to find, access and unlock this re-ordered version of the film.⁴⁰ Even those viewers initially unable to connect the clues provided in the disc’s packaging could access out their own, less time-consuming “cheat code,” typically going online to seek out the correct sequence of exam answers posted by other viewers who’d succeeded in unlocking the chronological version.⁴¹ Within this distributed digital cinema of interactions, then, it is not so much the couch potato that is king, as it is the engaged cross-media consumer who hones his or her skills — most often to the delight of media producers — within domestic viewing/surfing space.

⁴⁰ This ludic appeal to interactive spectator-consumer engagement had one of its most notable precedents in the “Follow the White Rabbit” special feature found on *The Matrix* DVD (1999), which allowed viewers to activate a series of “alternate” scenes featuring raw footage from the film set by hitting “play” on their DVD remotes when a white rabbit “easter egg” appeared on screen at a given time code.

⁴¹ As one online reviewer recounts, “(a)fter awhile, I got fed up with trying to uncover bits and pieces and I was a lot more patient than the average moviegoer’s probably going to be. Don’t get me wrong — the interface on this disc is extremely clever and it’s obvious that a lot of time and effort went into it. On a rainy day with nothing else to do, I’ll bet it’s great fun to kill the entire day getting lost in Disc Two. But if all you want to do is look at the script or the German advertising art, forget it. *Help is available, of course. After screwing around with the disc on my own for about an hour and a half, I cheated and went online.*” See “Memento,” accessed December 10, 2011, <http://www.thedigitalbits.com/reviews2/memento.html>. Emphasis mine.

DVD “Intratextuality” and The Taming of Smeagol

Brookey and Westerfelhaus contend that the “intratextual” relationship between the film as primary text and the secondary, supplementary materials featured on its DVD release can ultimately alter the viewer’s understanding of the original film, often ascribing new meaning and “value” that legitimates repeat viewings. With this in mind, I will perform a closer examination of *The Lord of the Rings* (hereafter referred to collectively as *LOTR*) as a franchise that exemplifies how DVDs, as part of a distributed “digital cinema of interactions,” served to condition consumer engagement with the digital image and the digital human more specifically. While DVDs aren’t unique in their cultivation of knowledgeable and even connoisseurial cinema spectatorship, they afford viewers the unique opportunity to revisit the primary film text and the digital character as many times and in as many ways as the he or she wishes after consuming these supplementary extratextual materials. Armed with a newly honed eye for detail, the viewer may reexamine previous assumptions regarding the nature and ontology of the digital character. I argue that the intratextual relationship between certain special features of the *LOTR* Extended Edition DVDs and the films themselves facilitates an increasingly naturalized mode of engagement with the digital human, wherein the digital human comes to be understood as a fine balance between “authentic” actorly performance and technical innovation, as well as the hybrid outcome of newer and more traditional media. I examine how the intratextuality of the *LOTR* DVDs seeks to redefine our relationship to the digital human as one of spectatorial mastery and

repeat consumption to enrich that mastery. I consider how this mode of engagement also necessitates the use and mastery of the interactive features of digital media.

Laura Mulvey contends that digital home viewing allows viewers to delay, fragment, and “possess” the once-elusive cinematic image to such an extent that spectators experience a heightened relationship to the human body, and the star body in particular.⁴² This relationship becomes further heightened, I argue, when the body in question is created through digital imaging processes that challenge the clear relationship between real-world referent, cinematic image, and spectator discussed in Chapter 2. Thanks to the voluminous extratextual information surrounding the creation of the digital human provided by the franchise’s DVD special features and the type of repeat viewing this discourse encourages, *LOTR* cultivates an especially heightened relationship with the figure of Gollum, one of the first digital characters to be promoted in relation to the real actor who plays him, British character actor Andy Serkis. Just like the film itself, Serkis’s Gollum is meant to be consumed multiple times and in multiple ways, viewed and re-viewed alternately as an object of aesthetic contemplation and appreciation, a “new media” technological marvel, a “real,” traditional actorly performance, and ultimately and somewhat miraculously, a

⁴² Mulvey asserts that, “(w)ith electronic or digital viewing, the nature of cinematic repetition compulsion changes. As the film is delayed and this fragmented from linear narrative into favourite moments or scenes, the spectator is able to hold on to, to possess, the previously elusive image. In this delayed cinema the spectator finds a heightened relation to the human body, particularly that of the star...” See Laura Mulvey, *Death 24x a Second* (London: Reaktion Books, 2006), 161.

narratively convincing hybrid of all of the above. Unlike the promotional and extratextual materials surrounding *Final Fantasy*, *LOTR*'s producers foreground the overlapping bodies, technologies and techniques involved in creating the digital human, reconciling Gollum's potentially uneasy reception by emphasizing his digital indexicality. Furthermore, as a means of encouraging repeat consumption of the *LOTR* films across their various release windows, Gollum serves as a kind of vertically integrated digital character, a model that would be adopted in relation to later digital humans and further expanded into horizontally integrated "character convergence" across media platforms, a dynamic I'll take up in subsequent chapters.

In this sense, Gollum embodies the intentions of the *LOTR* franchise as a whole. From the beginning, Time Warner conceived of the *LOTR* franchise as "perfect fuel for the synergy machine," spawning multiple theatrical and DVD versions, videogame spin-offs, and assorted merchandizing opportunities ideally designed to take advantage of Time Warner's vertically- and horizontally-integrated corporate structure.⁴³ The franchise was ideally positioned to take advantage of the growing DVD sell-through market, parlaying its status as both effects-driven fantasy blockbuster *and* Oscar-worthy prestige project into a three-tiered strategy of releasing increasingly comprehensive DVDs that made owning and consuming multiple versions of each film highly attractive to consumers. For example, in August, 2002, the theatrical version of *The*

⁴³ See Janet Wasko and Govind Shanadi, "More Than Just Rings: Merchandise For Them All," in *The Lord of the Rings: Popular Culture in Global Context*, ed. Ernest Mathijs (London; New York: Wallflower, 2006), 38.

Fellowship of the Ring was released with a supplementary disc of production documentaries and trailers. But this disc also featured a promo for the extended edition of the film to be released on DVD several months later, pointing viewers to the possibility of further DVD consumption of the same film, albeit an expanded version thereof. In November, 2002, the “Special Extended DVD Edition” of *Fellowship* was released with an additional 30 minutes of footage edited into the film, as well as even more elaborate extras, including four commentary tracks and two full supplementary discs on the film’s production. A collector’s edition gift set of *Fellowship* was released simultaneously, which included the extended cut of the film and its supplemental materials, as well as collector’s-item bookends and an additional DVD of the National Geographic special about the making of the trilogy. This multi-tiered release strategy was also followed with the trilogy’s two subsequent films, *The Two Towers* (2002) and *The Return of the King* (2003), with each DVD release also serving to promote the next film being released in theatres — or, in the case of *Return*, the December, 2004 release of the Extended Edition trilogy as a complete set.⁴⁴ In June, 2011, a Blu-Ray version of the extended trilogy was released (Fig. 2), enticing viewers to experience its visual splendour once more, this time with the newest industry standard for image resolution and sound.

⁴⁴ Thompson, *The Frodo Franchise*, 205.



Fig. 2: A print advertisement for the *LOTR* Extended Edition on Blu Ray

From the outset, the *LOTR* franchise was conceived by director Peter Jackson and film studio New Line as “distributed cinema” destined for multiple home-viewing iterations. Jackson saved extra footage from the trilogy’s production to be incorporated into the extended DVD releases, adding some 120 minutes of additional footage across all three films and upgrading the digital effects and colour grading featured therein.⁴⁵ He also extensively re-edited certain scenes, even re-working the soundtrack and commissioning additional music from composer Howard Shore to accompany the new versions of the films. In interviews, Jackson insisted that these longer versions weren’t “director’s cuts”—a term that has come connote a battle between the director’s authorial vision and the studio’s desire for a shorter, more readily marketable

⁴⁵ Thompson, *The Frodo Franchise*, 214. Prior to *LOTR*, Jackson had a history of recording additional and behind-the-scenes material for his films. He directed the making-of for laser disc of *The Frighteners*, as well as producing his own deluxe edition of it.

theatrical release. Instead, Jackson claimed to view the Extended Edition DVDs as an opportunity to release versions of the films geared towards “serious” fans who yearned for a more exhaustive take on the trilogy, while the shorter, theatrical versions were geared to a wider audience of more casual viewers.⁴⁶ By declaring this hierarchy of viewership, Jackson legitimates the need for multiple release windows, at the same time as he leaves the door open for more “casual” spectator-consumers to be intrigued enough by his additions to re-consume the trilogy across several DVD releases.

Just as Jackson used *LOTR* to fashion himself as a kind of DVD auteur, producer-distributor New Line used the trilogy to cement its pioneering role in the DVD format.⁴⁷ The Extended Edition DVDs featured two additional discs’ worth of supplementary material per film that exemplify how the DVD format has been mobilized to educate spectators in the aesthetic and technical appreciation of computer-generated imagery, as well as the interactive navigation and manipulation of its delivery systems. Each film in the trilogy was released as a four-disc set, with Discs 1 and 2 taken up by the longer versions of

⁴⁶ Thompson, *The Frodo Franchise*, 214. One reviewer of the Extended Edition DVDs clearly articulates this perceived hierarchy of viewership: “When I originally saw the film theatrically, I liked it, but didn’t love it and found it rather flawed - the first hour seemed too slow and I never really found myself fully involved in the characters. However, I warmed up to the film after its first DVD release and consider the extended version to be a very considerable improvement over the theatrical cut.” See Aaron Belerle, “Lord of the Rings: Two Towers Extended Edition,” accessed December 10, 2011, <http://www.dvdtalk.com/reviews/8283/lord-of-the-rings-two-towers-extended-edition/>.

⁴⁷ New Line’s *The Mask* (1997) was the first DVD to include special features, while their “Infinifilm” series of releases, starting with *13 Days*, were the first to include “unlockable” content in the form of Easter Eggs. Thompson, *The Frodo Franchise*, 205.

the films, their deleted scenes, and commentary tracks, while Discs 3 and 4 were dedicated to an extensive network of special features or “Appendices.” The sheer volume of interactive digital content on the Extended Edition DVDs is overwhelming: for example, there are 1000 menu pages and 19,000 buttons on disc 3 of *Fellowship* alone. (To that end, a brief introduction explaining how to navigate the Appendices is provided by Peter Jackson and star Elijah Wood and included with each film.) The production of the Extended Edition DVDs was tightly integrated into the overall production process of the films. For example, as *LOTR* DVD producer Michael Pellerin recalled, the crews responsible for the elaborate, multi-part “making of” documentaries that would accompany each film’s DVD release “were in the bloodstream of the production. We were given production offices in the film production offices. We literally became another little department of the movie.”⁴⁸

Subdivided according to their subject matter, most of these “making-of” narratives are divided into three parts and paired with the appropriate film in the trilogy. For example, a half-hour long documentary featurette entitled “Weta Digital” appears in the special features that accompany each film. Each featurette represents a bounded “story” highlighting the challenges faced by Jackson’s digital effects team in relation to the specific film it’s paired with. For example, the Weta Digital documentary accompanying *The Two Towers* details how Stephen Regelous developed Massive, an innovative crowd-animation software crucial to creating believable behaviour in the computer-generated Orc

⁴⁸ Thompson, *The Frodo Franchise*, 209.

hordes during the Battle of Helm's Deep. Meanwhile, the Weta Digital featurette paired with *The Return of the King* explores how a battle featuring the elephant-like Mumakil proved a formidable challenge to render convincingly. (An ostensibly fantastical creature, the Mumakil was still bound to certain realist expectations.) However, when viewed in sequence, these documentaries also tell a continuous, linear narrative of the digital effects work associated with the trilogy as whole, wherein the central players acquire a cumulative patina from their accomplishments, at the same time as the spectator-consumer who watches each featurette acquires a greater depth and breadth of technical knowledge with which to re-view the trilogy. The Weta Digital films are typical of most of the three-part documentaries that accompany the *LOTR* features, insofar as interviews with cast and crew consistently highlight the intense technical demands of making the trilogy as a progressively more difficult, against-the-odds journey taken on faith, with outright failure seeming, at times, a far likelier outcome than success. By providing an extratextual explanation of the journey of the filmmakers and technical crews that intentionally parallels the journey of trilogy's protagonists, these texts "add value" to the film as being worthy of repeat consumption on DVD, while producing an intratextual re-evaluation of the primary film text with a connoisseurial eye to the labour involved. For example, spectators might re-watch the Battle of Helm's Deep with the sole purpose of examining and passing judgment on the "intelligent" crowd behaviour created by Regulous's program, which included certain computer-generated Orc soldiers making the wise (if initially unintended) choice to flee

the battlefield entirely. As the first “screen test” of computer-animation technology that would subsequently become widely used within Hollywood, the sequence also provides a benchmark against which similar scenes in later films can be measured.

As a computer-generated character, Gollum seems a probable focus for inclusion in the Weta Digital documentaries that appear in *The Two Towers* and *The Return of the King* Appendices.⁴⁹ However, Gollum instead is subject to his own, separate strand of technician discourse and explanation, in part as a means of wresting him from the realm of the exclusively digital and to make certain claims for his “human” authenticity. While Gollum’s hunched, wretched appearance (Fig. 3) is abstracted enough to liberate him from some of the harsher spectatorial expectations surrounding photorealistic digital humans, he is not free entirely, given his human-like origins in the Hobbit Smeagol (Fig. 4) and his placement alongside “real” human actors in an ostensibly live-action diegesis.



Fig. 3



Fig. 4

⁴⁹ Gollum appears briefly at the end of *Fellowship*, but shrouded in shadow and barely visible, hence he is not the subject of any “how to” special features until the second and third films in the trilogy.

On Disc 4 of *The Two Towers*, a 40-minute documentary entitled “The Taming of Smeagol” provides just that: an attempt to “tame” or naturalize the digital character for viewers by rendering the process of its creation transparent, intelligible, and yet also a source of technological curiosity and wonder sufficient to warrant subsequent, hopefully multiple, viewings. Through this exhaustive, extratextual detailing of how Gollum was brought to screen, the Extended Edition DVDs impose certain interpretive frames upon subsequent viewer experience of Gollum, potentially creating a new intratextual interpretation of the character in the process.

The extratextual narrative surrounding Serkis’s digital performance began in the promotional materials and journalistic coverage leading up to the theatrical release of *The Two Towers*. Perhaps most famously, uncertainty surrounding Serkis’s relationship to his digital character fueled a heated Hollywood debate over whether an actor’s motion-captured and vocal performance could be nominated for an Academy Award.⁵⁰ A relatively unknown English character actor prior to being cast as Gollum, Serkis’s face became recognizable via its pairing with that of his computer-generated character in a series of print articles and television specials circulated prior to the film’s premiere. This imagery or footage was typically accompanied, in varying degrees of detail, by the same narrative: rather than a wholly “synthetic,”

⁵⁰ See, for example, Oliver Poole, “Can Gollum Get the precious Oscar nod?” *The Telegraph*, February 10, 2003, <http://www.telegraph.co.uk/culture/film/3589692/Can-Gollum-get-the-precious-Oscar-nod.html>; Ivan Askwith, “Gollum: Dissed by the Oscars?” *Salon.com*, February 18, 2003, <http://www.salon.com/2003/02/18/gollum/>.

computer-generated synthespian *a la* Aki Ross, Gollum was actually brought to life by a combination of Serkis's voice and motion-captured bodily performance, his filmed facial performances, and the skilled key-frame animation techniques of the team at Weta Digital. I suggest that "The Taming of Smeagol" documentary that accompanies *The Two Towers* provides one of the most extensive and influential accounts of this balancing act, in part because it is paired with the ability to revisit the primary film text and the character of Gollum as many times and in as many ways as the viewer wishes, re-examining previous assumptions regarding the nature and ontology of the digital character with a newly knowledgeable (or, in a more pessimistic view, newly guided) eye for detail.

From the outset, "The Taming of Smeagol" implies that the figure of Gollum represents such a complicated balance between performance and technology that it can only be fully understood and appreciated by those spectators armed with the necessary extratextual knowledge to do so. Opined Bill Hunt, editor of the DVD review web site *The Digital Bits*, of *The Two Towers* Extended Edition DVD and its Gollum-focused documentary,

You might think you know how much work was involved in creating the first digital character to give a realistic dramatic performance on film, but it was even tougher than you can imagine.⁵¹

Upon viewing the documentary, Hunt asserts that Gollum was "obviously the biggest special effects challenge in the entire trilogy," and that through the

⁵¹ Bill Hunt, "Lord of the Rings: The Two Towers 4-Disc Special Extended DVD Edition, Part 2," accessed November 30, 2011, <http://www.thedigitalbits.com/reviews3/lotrtwotowers4discb.html>.

featurette “we get a sense of the incredible efforts of actor Andy Serkis, the team of special effects artists at Weta Digital and the writers to create the look, feel and performance of the character.”⁵² Whereas the extratextual discourses surrounding the synthespian-era digital human elided the role of motion capture performers to focus on how digital imaging technologies could and would supplant human actors, *LOTR*’s extratextual materials acknowledge and foreground the multiple human “actors” involved in the “incredible effort” of Gollum’s creation, though none more vital than Serkis. Philip Rosen argues that, “if indexicality is a crucial aspect of the image, we must assume some active capacity at work beyond perceptual activities . . . this capacity must include a knowledge about how the signifier was supposed to be produced.”⁵³ Building on Rosen, Allison contends the extratextual foregrounding of Serkis’s “real” body and performance in relation to his digital character is crucial to viewer acceptance of his hybridized, digital indexicality:

[U]nlike common wisdom that would tell a filmmaker to hide the production apparatus so as to avoid dispelling the fantasy of the image on screen, this consideration of motion capture’s indexicality proves just the opposite: it is only by educating spectators about the production process that you can gain their willingness to believe in the image. After more than a century of discourse about celluloid’s claim to the real, audiences do not need any more training to consider photographs or particular films and videos as documents or records of reality. However, after being bombarded with counter discourses about the abilities of digital technologies to manipulate photographs and construct photorealistic objects within the computer, a certain amount of skepticism or doubt has now crept into

⁵² Hunt, “Lord of the Rings.”

⁵³ Philip Rosen, *Change Mummified: Cinema, Historicity, Theory* (Minneapolis: University of Minnesota Press, 2001), 20-21.

audience reception of almost every kind of moving image.⁵⁴

The first half of “The Taming of Smeagol” provides just such an education of the viewer in relation to the image, providing a detailed account of how Serkis, initially called to audition for the role strictly as a voice-over, came to inhabit the role of Gollum in almost every way *but* the photographic record of his “real” body on-screen. According to Jackson, Serkis earned the right to play Gollum “the hard way,” since initially the production thought they needed him only for the few weeks it would take to record his vocal performance, which was to occur independently of principal photography. However, after observing the raw physicality of Serkis’s vocal audition (which plays in the documentary as live-action footage under Jackson’s voice-over [see Fig. 5]), Jackson claims he began to completely re-think how Gollum would be created:

(W)hat was interesting is that, in trying to create this voice, he was having to distort himself and put all this expression in his face and that’s where he was finding the voice. He was actually doing the character. It was really in that audition I came to realize something that really had never occurred to me – that the voice, and the facial expression, and the energy are related, and you can’t really separate the two.



Fig. 5: A still frame of Serkis’s vocal audition (“The Taming of Smeagol”)

⁵⁴ Allison, “More Than a Man in a Monkey Suit,” 336-337.

Jackson posits an inseparable link between Serkis's vocal and physical performance that necessitated a complete re-working of Gollum's planned creation as a wholly computer-generated character whose bodily movements and facial expressions were to be controlled solely by Weta Digital's animators. Instead, Jackson decided that, through both his voice and motion-captured physical acting, "the personality, the *unifying performance behind Gollum* would come from Andy" (emphasis mine). Jackson's belief in the need for this kind of unification speaks to the long history of the uneasy relationship between co-present "real" and animated bodies, as well as the necessity of the careful extratextual management of the details of how, exactly, such figures are produced. In the case of Gollum, we are instructed, Serkis became involved in the film's production process on several levels: during filmed rehearsals, where he would perform alongside his "live-action" co-stars to establish the blocking and eyeline matches needed to accommodate the later inclusion of a digital character; during "mime" passes, where the actors would repeat the scenes without Serkis, save his off-camera performance of Gollum's dialogue; through his separate, bodily performance of Gollum's actions on the motion-capture stage (see Fig. 6); and finally, through the filming of his vocal performance that would be used as a reference for Weta Digital's animators when keyframing Gollum's facial performance.



Fig. 6: Serkis on the motion capture stage

Even with this level of integration into the production, however, we are informed (in this case, by Elijah Wood, Serkis’s most frequent co-star) that Serkis

had to fight for Gollum to be realized, as an actor . . . he gave everything of himself, everyday, and just bashed himself about . . . He went to all of these extremes to make sure the character came to life the way he saw it in his mind. A lot of people would see it as an amazing digital achievement. *But I know there’s so much more behind it than that: it’s Andy. Emotionally you invest because of the performance* (emphasis mine).

Wood’s praise runs as a voice-over for multiple sequences of Serkis “bashing himself about” on set (Fig. 7) — not just in the context of his motion-capture work, but also in the filmed rehearsals and even vocal work, to the extent that Serkis’s body was covered in bruises and his vocal chords nearly ruined by the production. For his part, Serkis admits to being “devastated” when he would head home after a particularly grueling day of shooting and reflect on the fact that some of his finest work — particularly in the filmed rehearsals — would

never make it to the screen. (In so doing, he aligns himself with Gollum’s psychological torment as outsider, “used” by the Hobbits/his live action co-stars, but ultimately excluded from their achievements.) With this extratextual information, the documentary strives to re-educate those “people” who would only view Gollum as “an amazing digital achievement.” It guides any subsequent screenings of *The Two Towers* with an awareness of the real, physical and psychological actorly sacrifice and suffering that informed Gollum’s creation and the acclaimed believability of his on-screen misery, a privileged link between actor and character that has informed evaluations of realistic screen acting since the post-war popularization of Method acting.



Fig. 7: Serkis “bashes himself about” on set. (Still from “The Taming of Smeagol”)

This is not to say that this extratextual narrative elides the consideration of Gollum as digital achievement. While Jackson deems motion capture a seamless way of “capturing the essence of Andy,” highlighting split-screen juxtapositions of Serkis in his motion capture suit and a 3-D digital Gollum moving in perfect

time with his actions, Weta Digital's character animators don't hesitate to share their initial antipathy towards motion capture as a primary means of generating a realistic character performance. Serkis's movements didn't always translate into convincing actions for Gollum — who, after all, is human-like but not human, and possesses obvious physiognomic differences from Serkis. Animators therefore at times needed to intervene via keyframing, especially (as was the case with Aki Ross) in the context of smaller, finer gestures and facial expressions. Serkis's facial expressions during his filmed vocal performances were used as a primary reference for animating Gollum's expressions, but animators also based some of his expressions on their own through mirror work. Indeed, they too are credited as "actors" and "storytellers" in their own right.

This extratextual knowledge helps legitimate repeat viewings at the same time as it naturalizes the potentially uneasy co-presence of organic and technological bodies in the motion-captured digital image. Allison argues that,

[i]f indexicality is to be retained as a useful term within the digital age, it must be acknowledged as a form of truth claim or a discourse of authenticity that may be mobilized in instances such as this one, rather than a guarantee of objective recording Instead of drawing a divide between analog and digital forms of representation, or between indexical and iconic media, we need to be attuned to how these various techniques and technologies overlap, influence each other, and intermix.⁵⁵

Ultimately, "The Taming of Smeagol" documentary seeks to do just that, reconciling Gollum as both a "milestone in animation" *and* an authentic human performance, as well as a hybrid of newer and more traditional image-making

⁵⁵ Allison, "More Than A Man in a Monkey Suit," 327-328.

techniques and technologies. It recognizes the importance of Weta's animators at the same time as it depicts Serkis's dedication to the role as powerful enough to shape the technical apparatus that surrounded it. (Indeed, we are informed, even Gollum's appearance was painstakingly re-worked in order to emulate Serkis's appearance, despite the multiple years of sketching and modeling that had gone into creating the pre-Serkis version of the character.)

The documentary concludes with the revelation that Serkis's performance was so influential during the live-action rehearsal takes, or "animation passes," that in many cases Jackson opted to use them in favour of the mime passes, necessitating Serkis's photographically recorded bodily performance to be "painted out" (to quote one Weta Digital animator) with his computer-generated alter-ego. Rather than strictly following Serkis's mo-capped performance or allowing the key-framed interventions of Weta's animators to take precedence, this "third path" (which Weta Digital termed "roto-animation" in a nod to its old media origins) allowed both actor and animator to play their part:

We found it was better to keep Andy in the shot and draw him out. We could superimpose our Gollum character and literally mimic Andy's actions. We're basically rotoscoping, which is tracking his motion frame by frame, and Gollum would be doing almost exactly the same thing Andy would be doing in the shot.

In these cases, Serkis's movements "drive" his digital character, not through the "seamless" interface of motion-capture, but rather through the painstaking interventions of Weta's animators. Furthermore, Serkis's "painted out" live-action performance leaves a visible, lasting impact on his fellow actors. By demonstrating several sequences wherein animators superimpose a wireframe

digital Gollum figure over Serkis's filmed image in the midst of the action, the documentary foregrounds the layering of "real" and digital bodies in a fashion reminiscent of the Fleischers's live action framing sequences, but with the ultimate goal of lessening spectatorial dis-ease.

"The Taming of Smeagol" also calls upon interested viewers to re-watch *The Two Towers* in order to search out the scenes featuring this hybrid roto-animation, and perhaps even try to discern whether Serkis's presence may be more keenly felt via the actions and reactions of his (non-digital) co-stars. The sequences featured in the documentary provide a logical starting point, while more demanding viewers may also try to seek out other scenes wherein this technique has been used. Serkis proudly boasts that, in one such scene, the photographically recorded evidence of his performance remains in the form of a gob of his own spit that emerges from Gollum's computer-generated maw — a kind of grotesque gloss on Roland Barthes's description of the "umbilical cord" that links the indexical image to both its real world referent and its spectator. Cued by this admission, viewers may set out to unearth other such traces that indicate the presence of Serkis's real body, which doesn't so much conjure the "uncomfortable co-presence" of the real and the animated that Bouldin and Langer identify within traditional rotoscoped animation as it does facilitate the re-framing of digital human as a potentially successful combination of both. Allison argues that the extratextual materials surrounding Serkis's digital performances

(teach) audiences and fans how motion capture works, giving them a discourse of authenticity that may have

affected how they responded to the film. These discourses, denying a break with traditions of acting and performance, legitimate new technologies like motion capture by explaining them in terms that are both familiar and respectable within traditional film criticism This abundance of audiovisual and print supplementary material gives viewers and fans an unprecedented access to the off-screen activity of the production crew, revealing what might have previously been considered secrets best concealed from the audience. While the access to this material may be more readily available, giving the viewer far more choices for how she engages with the text, these additional materials are still tightly controlled and designed to shape a certain kind of response.⁵⁶

Enabled by the relative ease of selectively fragmenting and reviewing Gollum's scenes on DVD, the ability to shuttle between the documentary and the film, and the extratextual knowledge the Extended Edition DVDs provide, this search for the "real" body (or its traces) can become a source of spectatorial enjoyment rather than anxiety. As Mulvey proposes, armed thusly the spectator does indeed possess a heightened relation to the star body on screen, one defined by the need to closely scrutinize, comprehend and "possess" the image through multiple viewings. In this context, viewers actively participate in the "aesthetic of the animate" that Grusin identifies and that the DVD format facilitates, particularly in relation to digital imaging technologies. This newly heightened relationship between spectator and digital character also clearly serves the industrial imperatives of the franchise's vertically integrated conglomerate owners; after all, viewers who'd seen the theatrical version of *The Two Towers* "may think they know" all of the work that went into creating Gollum, but

⁵⁶ Allison, "More Than a Man in a Monkey Suit," 337-338.

unless they've re-watched the film armed with the specialized knowledge that the Extended Edition DVDs provide, they can't truly understand Gollum's complexity as both technical achievement and actorly tour-de-force.

While the suppression of the multiple bodies that informed the creation of *Final Fantasy*'s characters may have contributed to spectatorial unease over their ontology and "uncanny" digitality, *The Lord of the Rings* DVDs expose the complex intersections between real bodies and digital technologies in the hopes of encouraging spectators to re-view these figures newly empowered by a connoisseur's awareness of their origins. These new knowledge formations may even transform the viewer's initial, uncanny response to the character of Gollum in the context of a preliminary theatrical viewing, assuming the viewer in question hadn't already been cued by pre-release promotional materials to read Gollum as a hybrid performance.⁵⁷ As Brookey and Westerfelhaus assert, the LOTR franchise exemplifies how DVDs are in many ways the "ultimate example of media industry synergy," collapsing product and promotion in order to ensure the re-consumption of the film across subsequent release windows. In the case of Gollum, the prevailing extratextual narrative of "real" actor Andy Serkis mastering, manipulating, and even shaping the implementation of the technology that allows his digital performance has clear parallels with DVD

⁵⁷ His familiar "humanity" made strange by the evil power of the ring, Gollum's initial, uncanny reception is supported by the franchise's narrative and thus not subject to the same kind of harsh judgment as a photorealist digital human protagonist like Aki Ross; unlike Aki, the character of Gollum is *meant* to be creepy. Gollum's extratextual reframing as a hybrid-but-authentic "human" performance provides a means of ensuring the repeat consumption of the performance.

viewers actively determining their own experience of the digital film text via its various affordances. However, just as Serkis's dependence upon the digital also makes him beholden to certain limitations of the technology, so too must viewers accept the controlled and circumscribed nature of their connoisseurial knowledge and the exhaustive consumption practices it engenders.

It's worth noting briefly that Serkis's acting career has been somewhat constrained by this wider perception of his roles as hybrid of human performance and digital technology that can only be appreciated by those spectators armed with the necessary extratextual knowledge to truly understand them. Even as he continues to pioneer new, critically-acclaimed film roles via performance capture, including *King Kong* (Peter Jackson, 2005), *Rise of the Planet of the Apes* (Rupert Wyatt, 2011), and *The Adventures of Tintin* (Steven Spielberg, 2011), Serkis's digital characters seem to have a better career than he does; or rather, he continues to only be known and acclaimed as an actor in relation to digital technology. Despite glowing critical reviews and studio campaigns on his behalf in each case (see Fig. 8), Serkis's performances in *The Two Towers*, *Return of the King*, *King Kong*, and *Rise of the Planet of the Apes* were all denied acting award nominations, in large part because Serkis's work was deemed unfairly machine-assisted, and thus, not "real" acting.⁵⁸ Instead, Serkis has been granted a series of special, "digital performance" awards that recognize the actor in tandem with his animators.

⁵⁸ Barry King, "Articulating Digital Stardom," *Celebrity Studies* 2:3 (2011): 258.



THE TIME IS NOW.



TIME

"SERKIS GIVES A PERFORMANCE SO
NUANCED AND POWERFUL IT MAY CHALLENGE
THE ACADEMY TO GIVE AN OSCAR TO AN ACTOR
WHO IS NEVER SEEN IN THE FILM."

Fig. 8: A print ad from the Oscar campaign 20th Century Fox waged on Serkis's behalf for *Rise of the Planet of the Apes*.

As we'll see in subsequent chapters, the promotional discourses surrounding performance capture shifts somewhat in the context of more recent, digital effects-driven blockbusters. I examine how this discourse, while acknowledging the innovative nature of performance capture, seeks to render the technology transparent so as to make the interface disappear, and along with it,

the work of the animators involved.⁵⁹ Focusing on two wholly-CGI, performance capture-driven films directed by Robert Zemeckis (*The Polar Express* and *Beowulf*), the chapters that follow examine how these films foreground the human actor's mastery of the digital character as a kind of transformative avatar who can go anywhere and do anything, a contention emphasized by the diegetic emphasis on the digital human's seamless navigation of immersive computer-generated spaces. As I'll examine in the chapters that follow, just as DVDs and the tropes of "interactivity" and digital connoisseurship they promote have inexorably shaped our reception of and engagement with the digital human across a range of vertically integrated media platforms, so too has a visual topos of immersion become a crucial trope in encouraging exhaustive transmedia consumption of digital cinema and its residents across a range of horizontally integrated ancillaries. This mode of address must be examined for how it appeals to an increasingly active and informed convergence-era media consumer, at the same time as it promotes new, cross-media modes of engagement with the digital human that have not yet been successfully naturalized.

⁵⁹ Indeed, in Serkis's case, subsequent awards campaigns for his most recent roles have sought to minimize the technologized perception of his characters; for example, in an open letter to the Academy, *Rise of the Planet of the Apes* co-star James Franco described Serkis's computer-generated screen image as nothing more than "digital make-up" on a fully-realized, authentic performance that came solely from Serkis.

Chapter Four

Get In The Picture/Get In The Game: The Digital Human as Avatar

In Chapter 3, I examined DVDs, digital connoisseurship, and how the careful extratextual management of Gollum's "digital indexicality" mitigates his uneasy reception by recuperating and foregrounding the "real" human agency of the actor who plays him, as well as that of the knowledgeable spectator who views and possibly re-views him across vertically integrated release windows. In this chapter, I consider how cinema and video games remediate one another in order to encourage character consumption across a range of horizontally integrated media platforms. Specifically, I examine how the relationship between human operators, digital avatars and digital spaces within video games and virtual worlds influences the construction and reception of the digital human in cinema. To what extent does the newly ubiquitous user-avatar relationship inform the apparent transformation of the digital human, shifting as it does from a synthetic figure that threatens to replace the human actor to an empowering digital prosthesis that extends human abilities? How does this shift affect spectator-consumer relations with digital characters on screen? And how does this reconfigured relationship in turn affect the narrative and diegetic strategies of films that feature digital characters? This chapter contends that the ongoing reception of the digital human must be understood as a moving target, informed by the viewer's evolving relationship to new digital technologies, as well as his or her own broader understanding of its means of production. As acknowledged

in Chapter 2, the figure of the digital human articulates broader anxieties over what it means to be human in an age of flawless computational simulation. These figures also are examples of the blurring boundaries between once distinct media forms in the digital age of conglomeration and convergence, and a crucial case study in how consumers must navigate between these increasingly converged forms.

While the term “avatar” has come to be widely used within both gamer communities and mainstream culture, it has also been a source of debate within the varied academic communities that study digital games, prompting ever-narrower definitions of what constitutes an avatar, and which digital worlds possess them. While the general use of the term avatar proliferates, its precise meaning within specialized knowledge communities becomes ever more contested, jeopardizing its usefulness as a tool for understanding media change. I therefore begin this chapter by surveying the myriad debates that surround the gamer-avatar relationship. Contrary to the restrictive approach of certain recent game studies definitions, I suggest the utility of considering *avatar* as an inclusive trope that can’t be confined to the context of a single game genre. Instead, I advocate for a definition that extends beyond the boundaries of interactive digital worlds and into broader considerations of transmedia franchises and their consumers. After all, specific avatars don’t just represent and transform their specific real-world users in the context of a specific digital game space. As a conceptual framework, the notion of the avatar also has the potential to transform our conventional understanding of actors, fictional

characters, and spectators, while simultaneously offering a point of connection between the converging media forms of cinema and video games. Such transformations are not without their challenges. As much as certain recent films seek to collapse the distinctions among cinematic avatars, video game avatars and the digital spaces they occupy, there remain significant differences between how we identify and engage with cinematic and interactive digital characters. In attempting to collapse these boundaries, such films point up one of the greatest remaining challenges to transmedia storytelling in the age of media convergence: namely, allowing each medium to do what it does best, while still contributing to the overall consumer experience of the franchise as a whole.

With an expanded definition of the avatar in mind, I closely analyze *The Polar Express* for the way in which its creators sought to reconfigure the relationship between actor, digital character and computer-generated story space as one akin to some of the more hyperbolic narratives surrounding gamers and their avatars. In sharp contrast to *Final Fantasy*, the extensive promotional campaign for *The Polar Express* foregrounded star Tom Hanks's connection to and mobilization of performance capture technology, and how this technology allowed him to (quite literally) play diverse digital characters. I compare Hanks's discussion of his performance process and the freedom it granted him to play a range of transformative characters to the discourse of bodily liberation and supernatural agency that has been widely mobilized by dedicated gamers in relation to their digital avatars. To what extent does this discourse overlap with more conventional actorly accounts of character, and to what extent does it

differ? This realignment of the actor/character relationship will be examined for how it operates in conjunction with the film's episodic, video-game-like narrative and highly immersive mode of address, which repeatedly plunge its characters (and, by extension, its viewers) into stomach-lurching thrill rides and dizzying explorations of the film's digital diegesis. This extratextual emphasis on the lived actor driving the malleable digital image functions in tandem with the film's mode of address to remediate the increasingly influential digital medium of the video game. However, unlike the one-to-one user avatar relationship found in video games, *The Polar Express* triangulates the user avatar relationship between Hanks as the operator of his cinematic avatar, and the audience as the ones who actually explore and experience digital space on his behalf, albeit without interactive control. In so doing, *The Polar Express* seeks to address those spectators familiar with the visual grammar and modes of character construction and alignment found in such games, at the same time as it points more generally to the increasingly hybridized nature of contemporary media forms. The film's often-excessive remediation of the embodied, "perceptual immersion" mobilized within certain games elucidates the remaining, crucial differences between the way we engage with cinema and video game characters. These differences will be better understood following a closer examination of the notion of the avatar.

I, Avatar: Defining the digital double

“Avatar” has its origins in the Sanskrit word “avatara,” meaning “descent,” and used to describe the visible forms Hindu gods took in our lesser, mortal world. In 1985, the term “avatar” was first used to describe virtual personae in digital worlds; video game developers for Lucasfilm’s early online role-playing game *Habitat* referred to its graphical player-characters as “avatars,” while the term was also used to describe the player-operated protagonist of *Ultima IV: Quest of the Avatar* (Origin Systems). However, the concept of the avatar was more widely popularized by Neal Stephenson’s cyberpunk novel *Snow Crash* (1992), wherein human users operate transformative, photorealistic digital stand-ins called “avatars” in an online Metaverse eerily reminiscent of contemporary virtual worlds. (Indeed, so compelling was Stephenson’s fictional account of wholly immersive, empowering user-avatar relations, the author mistakenly thought he’d coined the term and claimed as much in the novel’s introduction, only to have to retract his claim in a subsequent edition.) The term “avatar” has since come to be widely mobilized by video game culture to describe the graphical, typically human or anthropomorphic forms that represent human users in interactive digital worlds. As Tom Boellstorff observes, while the term avatar “historically referred to incarnation — a movement from virtual to actual — with respect to online worlds it connotes the opposite movement from actual to virtual, a decarnation

or invirtualization.”¹ And while Hindu gods may have appeared to become mortal through their avatars, humans often ascribe god-like powers to their virtual stand-ins. Bob Rehak suggests that, since avatars are directed by their user’s actions and yet freed from many of their limitations by this movement from actual to virtual, avatars can function as “supernatural ambassadors of agency” who allow players to explore aspects of their own materiality in fantasy form.² The precise workings of this “supernatural” agency will be discussed further below, but first it is necessary to survey the competing definitions of what, precisely, constitutes an avatar.

As video games continue to mature as a medium, their player-controlled occupants have diversified according to the growing representational and computational possibilities of each new generation of gaming consoles and PCs, as well as the multiplying generic demands of the games played on them.³ Persistent online worlds such as *Second Life* and *Home* allow users to create and customize digital selves not strictly geared towards linear, agonistic gameplay and “winning space,” but rather for developing multifaceted social relationships within shared virtual environments. In the context of such social media outlets as

¹ Tom Boellstorff, *Coming of Age in Second Life: An Anthropologist Explores the Virtually Human* (Princeton: Princeton University Press, 2008), 128.

² Bob Rehak, “Playing at Being: Psychoanalysis and the Avatar,” in *The Video Game Theory Reader*, eds. Mark J. P. Wolf and Bernard Perron (New York: Routledge, 2003), 105-106.

³ A far cry from the pixilated sprites of *Ultima IV* and cartoonish figures that represented the user in *Habitat*, video game characters now approach a degree of photorealism that allows game designers to unabashedly pursue the long-held goal of successfully remediating live-action cinema characters, a goal that will be discussed further in Chapter 5 for its problematic assumptions regarding the ease of eliding the boundaries between media forms.

Facebook and Twitter, meanwhile, we may transcend certain constraints of lived existence in order to put forth idealized physical and intellectual online representations of our ostensibly real-world selves. B. Coleman, for example, uses the term avatar to broadly define “not only the animated figures moving across the screen but also the gestalt of images, text and multimedia that make up our identities as networked subjects.”⁴ As Mike Walsh suggests, digital self-representations are no longer strictly the purview of gamers, but rather have become commonplace as more media forms demand and facilitate the creation of an online persona:

Today, there are virtually no entertainment platforms that do not require consumers to create a profile of themselves at one level or another, to describe what they like, who they know, and what they do. The more time we spend online, the more important it becomes for us to invest time and energy into developing online personas that best represent us. Or at least represent how we want to be seen . . . When people describe themselves for other people to see, this inevitably presupposes a choice of character and becomes a game of identity performance.⁵

As these types of user/player representatives have multiplied, the notion of the avatar has steadily entered into the popular imagination, at the same time as there has been an effort within video game and digital media studies to more precisely define the term, and to demarcate which digital spaces, exactly, possess avatars. For Rehak, Chris Crawford, Mirosław Filiciak, Mark J.P. Wolf and others, “avatar” denotes any stand-in for the player within gamespace, from

⁴ B. Coleman, *Hello Avatar: Rise of the Networked Generation* (Cambridge, Mass.: MIT Press, 2011), 4.

⁵ Mike Walsh, *Futuretainment: Yesterday the world changed, now it's your turn* (London; New York: Phaidon, 2009), 142.

the simplest abstract gun turrets and space ships of early arcade and console games, to the most photorealistic and customizable occupants of MMOs and virtual worlds. According to this formulation, “an avatar will be any game-unit that has action possibilities and that answers to the player.”⁶ Pioneer game developer Chris Crawford, for example, defines avatars as “virtual constructs that are controlled by human players and function as a means of interacting with other characters.”⁷ The avatar is, in this most basic sense, the user’s representative in interactive digital space, responding to their inputs via the game or computer interface, however simple or complicated those inputs may be. Player-driven “move acts,” to borrow Alexander Galloway’s phrase, can themselves serve as rudimentary avatars, standing in for graphical player-characters via the swiveling, targeting, and steering that indicate and orient the flows of player agency.⁸ By this very broad definition, then, the sliding “paddle” of *PONG* (Atari, 1972) is an avatar, as are the roving perspectival crosshairs of the tank in *Battlezone* (Atari, 1980), as is the floating cursor in *Myst* (Cyan, 1993), as is *Halo*’s (Bungie, 2001) Master Chief, as is a level 4 Tauren warrior in *World of Warcraft* (Blizzard, 2004). Even the rotations and connections of the

⁶ Daniel Kromand, “Avatar Categorization,” in *Proceedings of DiGRA 2007: Situated Play* (Tokyo: University of Tokyo), 400.

⁷ Quoted in Arthur Asa Berger, *Video Games: A Popular Culture Phenomenon* (New Brunswick, NJ: Transaction Publishers, 2002), 33.

⁸ Alexander Galloway, *Gaming: Essays on Algorithmic Culture* (Minneapolis, London: University of Minnesota Press, 2006), 22.

blocks in *Tetris* (Bullet Proof Software, Inc, 1989), Galloway argues, are move acts that serve to meaningfully represent the player within gamespace.⁹

Defined thusly, the success or failure of the avatar depends largely on how effectively they answer to their player within their respective contexts, rather than their representational traits. James Newman goes so far as to suggest that the level of engagement or presence experienced by the player — indeed, the degree to which the player considers themselves to “be” the character — is contingent not on character appearance, but rather on the abilities they provide their user. Newman asserts that in the context of gameplay (a condition he designates as being “On-Line”) video game characters

are embodied as sets of available capabilities and capacities. They are equipment to be utilized in the gameworld by the player. They are vehicles. This is easier to come to terms with when we think of a racing game like *Gran Turismo* where we drive a literal vehicle, but I am suggesting that, despite their representational traits, we can think of all videogame characters in this manner. On-Line, Lara Croft is defined less by appearance than by the fact that ‘she’ allows the player to jump distance x.¹⁰

In cinematic cut scenes and in her voluminous promotional materials, Lara Croft (Fig. 1) may possess a rich fictional biography that elaborates on her aristocratic

⁹ Galloway asserts that move acts “are commonly effected by using a joystick or analog stick, or any type of movement controller . . . in games like *Tetris* where the player does not have a strict player character avatar, move acts still come in the form of spatial translation, rotation, stacking, and interfacing of game tokens.” Galloway, *Gaming*, 22. Chapter 5 will examine how avatar simplicity and abstraction in early video games may have actually helped, rather than hindered, player engagement.

¹⁰ James Newman, “The Myth of the Ergodic Videogame,” *Game Studies: The International Journal of Computer Game Research* Vol. 2, No. 1 (2002): NP, accessed July 6, 2011, <http://www.gamestudies.org/0102/newman/>.

upbringing, her childhood survival of the plane crash that killed her mother, and her bitter legal battle for control of her family estate.¹¹ These same materials, perhaps even more famously, emphasize and fetishize her exotic poutiness and impossibly proportioned pin-up doll body. In the context of gameplay, Newman argues, Lara’s biography and physiognomy matter far less than how she functions as a capable vehicle, conduit and set of “equipment” for the player; she succeeds or fails based on her capacities, and how these capacities fuse with player action to “jump distance x,” win space and complete the game.



Fig. 1: Lara Croft

Ragnhild Tronstad suggests that the term “avatar” should be reserved for those “extended, prosthetic, part-of-ourselves type of character(s)” that prioritize this type of vehicular or “embodied empathy, in which the player experiences a

¹¹ From “Tomb Raider Legend: Lara Croft Full Biography,” accessed June 10, 2011, http://www.tombraiderchronicles.com/tr7/lara_croft_bio.html.

kind of physical or bodily connection to the character.”¹² For Tronstad, embodied empathy fosters a mode of engagement wherein the player identifies primarily *as* their in-game representative rather than *with* them as a separate, fictional entity. It is this former mode of identifying primarily *as* one’s game character as an extension of self that Tronstad deems truly “avatarial,” since it most closely emulates the relationship between Hindu gods and their avatars, and precludes the more detached “narrative” empathy experienced with a fictional character in a film or novel.

In Indian mythology, the avatar is a god’s representation on Earth; thus it seems reasonable to reserve the term for player-character relationships in which the character functions as a representation of the player in the game – in other words, for relationships where the character (avatar) has no perceptible identity of its own. To describe the player-character relationship of a player who roams (the game world) as herself, not role-playing and with no consciousness as to the character (avatar) being separate from herself, “avatar” is definitely a better word.¹³

Rather than simply using the terms “avatar” and “character” interchangeably, Tronstad seeks to locate them on a continuum wherein avatars function primarily as projections of their players, while characters may take on strong, fictional identities that are recognizably separate from those of their players. For example, Tronstad asserts that the role-playing affordances of such RPGs as *World of Warcraft* may actually make players more cognizant of their in-game

¹² Ragnhild Tronstad, “Character Identification in World of Warcraft: The Relationship between Capacity and Appearance,” in *Digital Culture, Play and Identity: A World of Warcraft Reader*, eds. Hilde G. Corneliussen and Jill Walker Rettberg (Cambridge, Mass; London: MIT Press, 2008), 256.

¹³ Tronstad, “Character Identification,” 258.

representatives as fictional characters, thus preventing these figures from being true stand-ins (and in Tronstad's terms, avatars) for their players: "In role play, the player is more explicitly aware of the character being different from him or herself, having a separate identity with a history, drives, and motivations of its own."¹⁴ Tronstad suggests that, when the player constructs his or her in-game representative to play a specific, coherent role within the fictional context of the gameworld, the resulting figure is best understood as a character, while a figure like Lara Croft can be viewed as an avatar because her fictional identity may be bracketed off from gameplay such that she may serve as a vehicle for the player to roam the gameworld as "herself."

As video games evolve, the broad definition of avatars as "any game-unit that has action possibilities and that answers to the player" has been subject to debate and refinement. In contrast to Tronstad, many scholars have argued that

¹⁴ Tronstad, "Character Identification," 257. In this context, Tronstad is referring to the act of role play (creating and operating a distinctive character) within role-playing games, which, as Dmitri Williams, Tracy Kennedy and Robert Moore point out, is actually rather a specific, distinctive niche within the role-playing game genre: "Today the term role playing has two distinct meanings in the context of these games. A RPG is one in which players must interact with the world from the perspective of a "character," which they control and which has certain numerical attributes and functional abilities. As the player achieves goals in the game, their character accumulates experience points, or "xp." This type of character/xp game mechanic is what distinguishes RPGs from other video game genres (Barton, 2008). The second meaning of RP in MMOs is a player practice regarding how players talk, act, and engage with one another. In addition to controlling a character as all players must, a minority of players further talk and act "in character" or in a way that their characters might." For Tronstad, the process of maintaining and playing "in character" actually heightens player awareness of their character as separate from themselves. Dmitri Williams, Tracy L. M. Kennedy and Robert J. Moore, "Behind the Avatar: The Patterns, Practices, and Functions of Role Playing in MMOs," in *Games and Culture* 6(2):173.

the term “avatar” should be reserved for those figures that don’t just represent the player in the gameworld, but also provide a rich and vital site upon which to “play” with identity. For some, this identity play hinges upon a privileged and highly specific relationship between the player and her digital stand-in, wherein the player doesn’t just *control* but also *co-creates* and *modifies* her digital stand-in throughout the course of gameplay. For example, Laetitia Wilson suggests that avatars are virtual selves that stand in for our real-space selves, at the same time as they function “as a locus for our extended agency; a locus that is multifarious and polymorphous, displaced from the reality of our realspace selves.”¹⁵

For Wilson, avatars represent the user at the same time as they permit meaningful experimentation with shifting and multiple identities via the creative choices and interventions users may make upon their avatar’s physical attributes and gameplay capabilities. Building on Slavoj Žižek’s notion of interpassivity, Wilson asserts that video game characters are interpassive entities rather than truly “interactive” ones, soliciting “a mode of relating that involves the consensual transferral of activity or emotion onto another being or object — who consequently ‘acts’ in one’s place.”¹⁶ As the interpassive object or “surrogate self” who mediates the user’s engagement with digital space, the avatar provides a locus of agency and positive identity play by allowing the user to become “the

¹⁵ Laetitia Wilson, “Interactivity or Interpassivity: A Question of Agency in Digital Play,” University of Western Australia, 2003, accessed July 6, 2011, hypertext.rmit.edu.au/dac/papers/Wilson.pdf, NP.

¹⁶ Wilson, “Interactivity or Interpassivity,” NP.

author of one's signifiers."¹⁷ This authorship most obviously occurs in the creation of what Boellstorff terms "slider selves," digital stand-ins that can be tweaked and modified using in-game affordances to create the player's desired representation of him or herself in the world of the game, even if that avatar bears little resemblance to the operator-player controlling them in terms of appearance and ability.¹⁸

The element of creative choice sets avatars apart from video game characters that can't be modified and customized, facilitating as it does the creation of a "polymorphous" virtual identity that acts meaningfully on the behalf of the real-world user. For Zach Waggoner, creative choice is crucial to understanding how players become so immersed in video games through their in-game representatives. Waggoner proposes it as the central criteria for distinguishing between those video game characters which function as true "avatars," and those which only serve as controllable "agents" for their user:

Pac-Man cannot be altered in any way by the user. He can only be controlled. His appearance and skills can never change throughout the course of the game. That makes Pac-Man an agent. The same holds true for Spacewar's spaceship, Lara Croft of Tomb Raider fame, Mario of Super Mario Bros, Frogger, Sonic the Hedgehog, Duke Nukem, GTA: Vice City's Tommy Vercetti, and Perfect Dark's Joanna Dark. All of these famous video game characters are agents, and can only be controlled by the user, never altered in appearance or skill level.¹⁹

¹⁷ Wilson, "Interactivity or Interpassivity," NP.

¹⁸ Boellstorff, *Coming of Age*, 129.

¹⁹ Waggoner, *My Avatar, My Self: Identity in Video Role-Playing Games* (Jefferson, NC: McFarland & Co, 2009), 9.

Rather than merely providing their users digital placeholders or vehicles within gamespace, Waggoner argues, true avatars afford them the kinds of choices that are crucial to the player's identification with his character. For postmodern identity theorist Diana Fuss, identification is a psychical mechanism that produces self-recognition, and thus, identity formation — what Fuss terms “the detour through the other that defines a self.”²⁰

Building on Fuss's theory, Waggoner asserts that the avatar can provide just such a detour to its user, the co-creation, modification and transformation of the avatar as virtual identity /“other” enabling the user's transformation and affirmation of self.²¹ Inverting Tronstad's argument, Waggoner contends that the video role-playing game (and the high degree of character customizability, multi-faceted attribute systems and complex in-game social relations they afford their user) is the only video game genre that facilitates the creation of true avatars. It is precisely these role-playing decisions, Waggoner argues, that ensure player investment in the character-as-avatar. In conjunction with a detailed consideration of players who spent extensive amounts of time operating avatars in the video role playing games *The Elder Scrolls III: Morrowind* (Bethesda, 2002), *The Elder Scrolls IV: Oblivion* (Bethesda, 2007), and *Fallout 3* (Bethesda, 2008), Waggoner argues that players

cannot help but identify with the avatar as they have created it and made decisions through and for the avatar throughout the gaming experience: when to fight, when to flee, when to talk, how to talk, and where to go. These continual

²⁰ Diana Fuss, *Essentially Speaking: Feminism, Nature & Difference* (New York: Routledge, 1989), 2.

²¹ Waggoner, *My Avatar*, 26.

decisions made by each user allow for the many psychic self-reflections needed for identification . . . particularly if the outcome of a decision is not desirable. At the same time, the user remains aware that the (Morrowind) gameworld is not of their own creation — it exists outside of themselves, the virtual creation of others (game designers and programmers).²²

Waggoner contends that true avatars enable the interplay between the user's non-virtual and virtual identities to form a hybrid entity — what James Gee terms a “projective identity”— that allows both player and character to transcend their individual limitations.²³ While the player remains aware of their avatar as a separate, virtual identity that exists in the context of a fictional, digital world, her constant interventions upon her character ultimately gives way to a successful “blend” of identities that ensures the player-character cannot complete the game without undergoing significant transformation.

While the broad definition of avatar as any type of graphical or movement-based user representative may be too inclusive, I would argue that definitions such as Waggoner's that restrict avatars to the realm of a single video game genre are problematically narrow. Harrison Gish offers a useful middle ground, defining avatars as

interactive agents that importantly also function as personal, individual projections into the game world, literally and digitally embodying the choices of individual players ('embodying' as in being written on a human-esque body,

²² Waggoner, *My Avatar*, 173.

²³ Gee in Waggoner, *My Avatar*, 173. See also James Paul Gee, *What Video Games Have to Teach Us About Learning and Literacy* (New York: Palgrave MacMillan, 2003), 56.

while also showing a correspondence between player interaction and in-game response).²⁴

Gish asserts that avatars allow their users to exercise some degree of “directed authorship” of their aesthetic and/or functional attributes, but doesn't restrict this authorship to the limited purview of role-playing games. (Indeed, Gish suggests that Nintendo's *Super Mario 3* [1988] can be viewed as an early example of avatar emergence, given the player's ability to “power up” Mario's abilities and attributes by strategically accessing a database of costumes and consumables.)²⁵ Gish also points to the necessity of a visible or implied human or human-esque body upon which to exercise this authorship, excluding Galloway's “move acts” from the category of avatar, and emphasizing instead the importance of “personhood” (or something like it) to these player projections.²⁶ While avatars may still be primarily defined by their ergodic functionality within gamespace and the equipment and capacities they provide their operators, representational traits still matter, since it is in part the manipulations, modifications, and even spectatorial scrutiny of this human (or human-esque) body that contribute to strong user engagement. As Gee points out, the different perspectives possible

²⁴ Extract is from a March 15, 2011 email exchange informed by a Gish's forthcoming dissertation on avatars, “Points of Entry: Avatars and Player Incorporation in Video Games and Virtual Worlds” (PhD diss, UCLA, forthcoming).

²⁵ As Gish points out, “a minimalist database of power ups that both change Mario's appearance and his in-game functionality are available to the player while they negotiate the map screen. Frog suits, fire flowers, etc can be applied to Mario if and when players choose to do so, a circumstance inherently different from hitting a question-mark block and colliding with a magic mushroom in the original game.” Gish, email to author, March 15, 2011.

²⁶ As we'll see in Chapter 5, in the context of early movie-licensed games the implied rather than actual presence of visible human forms may have eased the cross-media translation of certain characters.

on our avatar during gameplay have a decisive impact on how we identify with them:

First-person mode feels closer to the character and allows you to identify tightly with [the avatar's] situatedness in the world. Third person mode allows you to see [the avatar's] body, actions, and reactions and identify with him from a thematic point of view, since you now have images to help with the identity play you are engaged in . . .²⁷

Building on Gish's definition, I argue that avatars are those humanly "embodied" interactive agents that function as personal, individual, and to some degree customizable projections for their player-operators within digital space. I also wish to expand this definition beyond the strict purview of interactive digital games and virtual worlds in order to suggest that avatars may also be operative in the context of other media. I'll suggest that this one-to-one relationship of individual influence and potentially liberating transformation can cross the boundary between video games, other media, and the "real" world, and that, understood thusly, avatars provide an invaluable means of conceptualizing and understanding media change.

Pre-visioned within the pages of cyberpunk as the chance to leave the restrictions of embodied meatspace behind, the notion of the avatar as a personal, customizable projection of the user has been mobilized as a powerful trope within television and cinema, especially as computer imaging processes began to encroach upon their once-analogue production processes. One of the first feature films to showcase its use of computer graphics, Disney's *TRON* (1982), also took as its central premise the relationship between real-world

²⁷ Gee, *What Video Games Have to Teach Us*, 71.

“users” and their computer “programs,” with the majority of the film’s narrative presented from the perspective of the humanly embodied programs within computer space.²⁸ Following *TRON*, Adam Davis identifies a growing corpus of what he terms “avatar films”— including *Lawnmower Man* (Brett Leonard, 1992), *The Matrix* trilogy (Andy and Lana Wachowski, 1999, 2003), *Slm0ne* (Andrew Niccol, 2002), *Gamer* (Mark Neveldine and Brian Taylor, 2009), *Surrogates* (Jonathan Mostow, 2009), and, perhaps most famously, *Avatar* (James Cameron, 2009) — which centre on their protagonists’ operation of a digital or mechanical double within a separate, often dystopian diegetic space.²⁹ For example, Keanu Reeves’s Neo “jacks in” to the Matrix to save humanity from the compelling virtual hallucination in which they’ve become enslaved in *The Matrix*, while FBI agent Tom Greer (Bruce Willis) disconnects from his idealized avatar or “surrogate” in order to investigate how human users are being murdered via their second selves in *Surrogates*. In so doing, Davis contends, these films narrativize the powerful promise and frightening potential for alternate, transformative bodies and corporeal liberation made possible by digital technology. At the same time, he suggests, these films articulate broader anxieties about both the loss of the lived human body and that of the corporeal

²⁸ Interestingly while the original film’s users and programs are played by the same, photographically-recorded actor in neon, hand-painted costumes to delineate their “program” identity, in *TRON: Legacy* (Joseph Kosinski, 2011), actor Jeff Bridges’s computer-space program Clu is a computer-generated composite of the actor’s real-world performance and digitized images of his younger self.

²⁹ Adam Davis, “Undesirable Bodies: Virtual Labour and Consumerist Technology” (paper presented at the Society For Cinema and Media Studies conference, New Orleans, Louisiana, March 10-14, 2011).

“body” of film as an indexical medium³⁰ — anxieties that were similarly evident in the uneasy reception of *Final Fantasy*’s extratextual narrative surrounding its all-digital cast.

I want to suggest that *The Polar Express* functions as an avatar film of a different order, insofar as its extratextual production and promotional narrative around performance capture technology positions Hanks as a masterful operator of multiple digital characters-as-avatars in the film’s elaborate, fully-realized computer-generated spaces. At the same time, *The Polar Express*’s immersive, often excessive visual grammar positions spectator-consumers as prospective gamers. If these efforts reflect the celebratory stance towards digital media that Davis identifies within avatar films, then the mixed reception of *The Polar Express*’ characters seems to articulate, if not downright anxiety, then a definite ambivalence towards the film’s conflation of defined media boundaries.

“I could play Florence Nightingale”: From Synthespian to Avatar

When *The Polar Express* rolled into theatres in November of 2004, its status as technological object *par excellence* almost immediately threatened to exceed its existence as a nostalgic holiday film based on the popular children’s book of the same name. Backed by a reported \$125M promotional budget, director Robert Zemeckis and star Tom Hanks embarked on an extensive media campaign that sought to reconcile any perceived gap between the film’s complicated computer-generated production process, its near-photoreal visual

³⁰ Davis, “Undesirable Bodies.”

aesthetic and characters, and the timeless sentimentality and simplicity of its storyline. However, Zemeckis's most prescient observation had nothing to do with reconciling these seemingly disparate elements of spectacle and story according to the underlying belief (as is widely held in both contemporary popular cinema and academia) that one must necessarily dominate the other. Instead, Zemeckis pointed out that the way we conceive of cinema as an assemblage of spectacular and narrative components may be undergoing a fundamental change, in large part due to its evolving hybridity with other digital media forms:

The traditional, hundred-year-old optic, chemical, mechanical way in which we record movie images is changing It will be a language influenced by the artistry of video games and the internet — a whole new way of how we use images to communicate.³¹

Indeed, in terms of its construction and presentation of ostensibly realistic digital human characters and navigable digital spaces, *The Polar Express* suggests a fundamental shift towards the convergence of cinema and interactive digital media. While, like *Final Fantasy*, *The Polar Express* used a costly marketing campaign to highlight its complicated technical origins, it ultimately sought to reframe the relationship between actual body and digital image as one wherein the body is not erased, but rather foregrounded for how it controls the digital character as a personal, individual projection or “surrogate self” in a separate

³¹ Robert Zemeckis, *The Polar Express* online production notes, accessed June, 2005, http://polarexpressmovie.warnerbros.com/movie_prodnotes.html.

diegetic space — in this case, the elaborate and immersive spaces of the film’s lavish, all-CGI storyworld.

For Hanks’s part, the two-time Oscar winner underwent a radical transformation, not just of his on-screen image, but in his stance towards digital human characters. This new enthusiasm for digitally-augmented acting contrasts with his anxious speculation over the likelihood that synthespians would replace Hollywood stars prior to the release of *Final Fantasy* addressed in Chapter 2. Just three years later, dressed in a black cap and jumpsuit, his face and body studded with reflective markers, the recognizable image of Hanks (Fig. 2) appeared alongside that of one of his characters in *The Polar Express*.³²



Fig. 2 **Fig. 3**
Promotional images for *The Polar Express*

³² These promotional images tended to pair Hanks with his two “biggest” roles, as train conductor and Hero Boy. Hanks also played Santa Claus, a mysterious drifter, and Hero Boy’s father through performance capture.

Bodily positions and facial expressions near-identical but somewhat altered in external physical appearance, this odd couple was typically paired with an article in which Hanks and Zemeckis praised the limitless possibilities of performance capture technology, the updated form of motion capture in which computer-recorded data from reflective markers on the actor's body and face allows their movements and expressions to “drive” those of a digital stand-in in the film’s CGI storyworld. Lengthy articles and detailed photo spreads in such publications as *The New York Times*, *Entertainment Weekly* and *Premiere* exhaustively explained the performance capture process, an elaboration on motion capture that allows a real, flesh-and-blood actor’s bodily and facial performance to be “captured” via the hundreds of infrared light-reflectors attached to their black jumpsuits and facial muscles, and then digitally rendered with an organic naturalism allegedly superior to motion capture.³³ So prevalent were these types of articles during the film’s pre-release media build-up that Steve Daley noted, “in an attempt to inoculate the public against bewildered reactions, Warner’s has been circulating lots of behind-the-scenes shots of Hanks in a sensor-studded jumpsuit.”³⁴

Since traditional cinematic identification is based on some degree of identity sharing between the viewer and star-as-character, such identification becomes problematized by the absence of a discernable, unified human agent

³³ See Steve Daley, “Claus and F/X,” *Entertainment Weekly*, November 12, 2004, 44; Ron Magid, “‘Polar,’ Bared,” *Premiere*, November 2004, 54-56; Dave Kehr, “The Face That Launched a Thousand Chips,” *The New York Times*, October 24, 2004, Susan King, “How Did They Do That?” *The Los Angeles Times*, November 21, 2004.

³⁴ Daley, “Claus and F/X,” 44.

bringing the performance at hand “to life.” As Murray Smith observes, our engagement with fiction films and fictional narratives more broadly relies on our recognition of characters as analogues of human agency — which, under normal circumstances, necessitates a person, and thus a character, occupying a single, discrete body.³⁵

The recognizable image of the human star typically serves as a guarantee of this ostensibly unified human body, while the assumed fact of the star’s offscreen existence ensures its underlying agency. As we’ve seen, in the absence of such a unifying presence, and with their performances informed by a suppressed multiplicity of actorly bodies and technical interventions, *Final Fantasy’s* synthespians were deemed uncanny and troubling. Recall also Barbara Creed’s assertion that what the cyberstar lacks is an unconscious shaped by the trials and

³⁵ Murray Smith, *Engaging Characters: Fiction, Emotion and the Cinema* (Oxford; New York: Oxford University Press, 1995), 25. Writing at a time when the possibility of digital humans anchoring a feature film was largely speculative, Smith points out that “(h)uman individuality, as a set of physiological and neurological facts, is a contingent universal: there is nothing logically binding about the discreteness of human bodies, but, for the moment at least, this is the way humans are constructed.” As Smith notes, those rare cinematic scenarios where different actors play the same role (as Christian Bale, Cate Blanchett, and Richard Gere do in Todd Haynes’s 2007 Bob Dylan “biopic” *I’m Not There*) tend to be mobilized specifically to achieve narrative disorientation. Meanwhile, those circumstances when actors play more than one role in a film (as do Hayley Mills in *The Parent Trap* [David Swift, 1961] or Peter Sellers in *Dr. Strangelove* [Stanley Kubrick, 1964]) tend to necessitate similar extratextual management of spectatorial expectations to “look” for the performances in question.

tribulations of lived experience.³⁶ No matter how constructed or stage-managed, a star's "offscreen" persona (their romantic entanglements or lack thereof, the emotionally self-revelatory interviews they may grant, indeed, just the simple fact that they "exist" off screen) inevitably becomes tied up with viewer acceptance of the character they play. This is certainly the case with a star the magnitude of Tom Hanks, whose film characters have evolved according to the off-screen evolution and maturation of Hanks himself from callow-yet-endearing young comedian to respected actor, romantic lead, and all-round heroic Everyman. Hanks's off-screen persona — an all-American combination of "normalcy" and niceness and girded by integrity and authority, anchored in the rare stability of an ostensibly happy long-term Hollywood marriage — remains integral to the performances he gives both according to type (*Cast Away* [Robert Zemeckis, 2000], *The Green Mile* [Frank Darabont, 1999]) and against it (*Road to Perdition* [Sam Mendes, 2002], *The Ladykillers* [Ethan and Joel Coen, 2004]). For example, Hanks-as-hardened hitman in *Road to Perdition* is interesting for viewers precisely because of its apparent departure from Hanksian integrity, even though traces of said integrity remain by sheer virtue of Hanks's presence in the role.

Of course, the method by which most viewers discern the fact of Hanks's "presence" in any screen role is still the photographically recorded cinematic image of his physical being. Although an indexical link to Hanks is provided in *The Polar Express* by the use of his performed movements and facial expressions

³⁶ Creed, "The Cyberstar," 80.

to “generate” those of his multiple characters, as well as his vocal performances for all but the Hero Boy character, the absence of the embodied, recognizable and discrete human body of the star known as Tom Hanks within the film’s digital diegesis challenges conventional viewer engagement with both the star and the characters he portrays. In this sense, compared to then-unknown journeyman actor Serkis and *Beowulf*’s indie darling lead Ray Winstone, who will be discussed in Chapter 5, Hanks’s “real” body and image present a greater challenge to reconcile in relation to his digital image(s). As Richard Dyer asserts, because bodily continuity creates the possibility for the continuity of personhood, even the disunity created by the frequently opposing qualities of stars and star images are “rendered a unity simply by virtue of the fact that each was only one person.”³⁷ The film star’s photographed image, both on screen and in the media, increasingly provides the viewer’s only link to the “real” star, and as such, becomes a privileged site to be mined for traces of physical, emotional, and intellectual authenticity. For stars like Hanks who often delineate new and distinctive film characters via some degree of physical transformation (for example, extreme weight loss for *Cast Away* [Robert Zemeckis, 2000] and *Philadelphia* [Jonathan Demme, 1993]), the “truth” of their everyday photographic image becomes a measure of how successful (and thus, creatively masterful) that transformation has been.

At first look, then, the media foregrounding of the readily identifiable megastar Hanks seems to suggest an appeal to traditional spectator relations with

³⁷ Richard Dyer, *Stars*, 30.

the flesh-and-blood star and his on-screen character (or, in Hanks's case in *The Polar Express*, characters). Upon closer examination, these media discourses can be viewed as encouraging an entirely different type of relationship, wherein the human star Tom Hanks is a real-space user controlling a series of transformative and ultimately empowering digital avatars. The publicity surrounding *The Polar Express* sought to uncouple the hybridity of character bodies as both real and animated, but in so doing, it doesn't simply re-instate the uncomplicated dominance of both the human actor and photographically recorded, live-action cinema. Instead, these extratextual materials tend to foreground how the real actor operates the digital character from a separate space entirely — in this case, the neutral performance volume that Hanks and his co-stars repeatedly referred to as their “play space.”³⁸ Rather than being fragmented into multiple, brief takes, the performances were recorded uncut and in real time, not unlike the real time of continuous game play. While conventional promotional build-ups for star-driven films tend to involve detailed celebrity interviews that stress the star's personal connection to the role in question, the only connection consistently highlighted between Hanks and the roles he plays in *The Polar Express* is a technical one — that of the interface that allows the “data” of his performance to be recorded and translated into the creation of a transformative character that can go anywhere

³⁸Recalls Hanks, “Bob actually gave us a seminar on what it was we were supposed to expect, and it was this big explanation of the volume and the cameras. He talked to us for about three and a half hours and we were still kind of confused? ‘What the hell is Bob talking about?’ Then we did it for the first time and we said, ‘Oh, oh, OK. We just do it and we play and then that's it.’” Jeff Otto, “Interview: Tom Hanks” *IGN.com*, November 9, 2004, accessed July 6, 2011, <http://movies.ign.com/articles/564/564950p2.html>.

and do anything. In this sense, Hanks's characters aren't dissimilar from Newman's definition of video game characters as more defined by their functionality in the gameworld than their richly developed personas. However, as per Waggoner's and Gish's assertions regarding the importance of a visible and modifiable avatar body to user/player identification, the appearance of Hanks's characters still matters.

Photographs of a reflector-covered Hanks (Fig. 4) acting in this stripped-down play space tended to be juxtaposed against the completed, visually lush digital footage of his character in the same position, now standing against an



Fig. 4

exhaustively detailed backdrop. Acting in the context of performance capture is presented as much as technology-assisted play as it is realistic character evocation, the interface that connects user/actor to his character exposed and demystified in the hopes that it will be come invisible — virtual reality, without all the clunky gear. Repeatedly, Hanks and his fellow actors assert that, after a few

days of wearing the reflectors, they no longer noticed them.³⁹ Just as the player's/user's "move acts" drive the actions, reactions, and explorations of their on-screen character from the comfort of their living room via the interface of the game console and controller, Hanks's movements drive those of his virtual characters from the real world play space via the interface of the performance-capture sensors attached to his body. In this sense, Hanks's characters function as his avatars: personal, individual and graphically visible human projections that reflect the choices and actions of their real-world user. While Hanks cannot customize the aesthetic attributes of his digital avatars — this task is distributed within the network of production between the film's software designers and animators — the actor still meaningfully influences and alters the abilities of his avatars through his embodied performance. Furthermore, as we'll see, certain spectators who were unsatisfied with character aesthetics were ultimately able to intervene and "mod" Hanks's characters through the affordances of increasingly ubiquitous and accessible tools for creating, altering, and distributing digital images.

The promotional materials for *The Polar Express* reinforce the avatarial relationship between Hanks and his characters by repeatedly stressing how performance capture liberates stars from the multiple limitations of the body,

³⁹ For example, when asked whether the performance capture gear was distracting, Hanks's co-star Nona Gaye claimed to the contrary: "We have so many markers on our face that it actually settles in and starts to feel like your own face. And there are so many that they are able to capture every single nuance of every expression that we give, so it's us. It's really our performance. Rebecca Murray, "Nona Gaye Finds The Child Within in 'The Polar Express,'" About.com, accessed July 6, 2011, <http://movies.about.com/od/thepolarexpress/a/polarngl10704.htm>.

including their age, gender, ethnicity, and appearance. Hanks raved about the “freedom and the possibility” it granted him to play five very different characters, ranging from an eight-year-old boy to Old Saint Nick:

The fact that I played an eight-year-old kid in this movie is the best example of the freedom and the possibility that the technology will allow You will no longer be limited by your size, shape, skin color, age or gender. If you have the interpretation that the director wants for the role, then you can play any role. I could play Florence Nightingale, I could play Abraham Lincoln, and so could Meryl Streep. That can be very exciting for a number of actors who would never get the opportunity to play certain roles . . . this technology will allow that.⁴⁰

This focus on escaping the restrictions of the body has been a recurrent theme within the literature surrounding virtuality and cyberspace: the idea that, in leaving the meat behind, we are free to experience varied and multiple subjectivities unavailable to our embodied selves. A distilled version of this discourse has since been adopted by and for video game enthusiasts. It’s an

⁴⁰ Anwar Brett, “Tom Hanks: The Polar Express,” *BBC Movies*, December 2004, accessed July 8, 2011, http://www.bbc.co.uk/films/2004/12/01/tom_hanks_the_polar_express_interview.shtml. Hanks expands further on the liberatory potential of performance capture in another, even more hyperbolic interview: “What this can do from an actor's point of view is, quite frankly, is free us up to a huge degree. I've used this analogy many times, and I've apologized to Meryl Streep, but she's just the name that comes up. If Meryl Streep can perform the greatest Genghis Khan in history, better than anyone else can play Genghis Khan, Meryl Streep can play Genghis Khan. And if James Earl Jones can play the greatest Mickey Rooney in *The Mickey Rooney Story*, James Earl Jones can now play Mickey Rooney in *The Mickey Rooney Story*. It's an extraordinary opportunity for actors to no longer be limited by size, weight, color of hair, gender or race. That's actually really great news So as far as an actor goes, it's possible now to play any character in any circumstance in a way that simply was not as feasible as before.” Jeff Otto, “Interview: Tom Hanks” *IGN.com*, November 9, 2004, accessed July 8, 2011, <http://movies.ign.com/articles/564/564950p1.html>.

especially common refrain amongst participants in MMOs and persistent online virtual worlds like *Second Life*, who invest extensive amounts of time constructing and modifying “slider selves” that often bear little resemblance to their real-world users.

As Dmitri Williams, Tracy Kennedy and Robert Moore point out, players often construct avatars as a means of casting off the limitations of their actual bodies in order to explore and express that which they are constrained from doing off-line. This type of transformative identity play can be just as immersive, the authors argue, as using an avatar as a direct expression or projection of one’s “true self.” Opines one player, echoing Hanks’s description of his cinematic digital avatars:

Well, in (real life) I am who I am . . . and I can’t be a Sarnak or a Ratonga. With (role play), I can be whoever I want. If I want to be an annoying fairy, I can. If I want to be a mean Iksar, I can. Just gives me an opportunity to be in a world that I could never be in, in (real life). (Kathy, age 20)⁴¹

To some extent, Hironobu Sakaguchi and Ray Sato mobilized a version of this transformative discourse in relation to *Final Fantasy* when they boasted that they could make Aki Ross “do anything they want,” foregrounding the multiple digital affordances at their fingertips for modifying and customizing the finest details of her appearance and behaviour. Certainly *Final Fantasy*’s origins in the role-playing computer game series of the same name — and the origins of its studio, Square Pictures, in game developer Square Enix — suggests the potential

⁴¹ Williams, Kennedy and Moore, “Behind the Avatar,” 188.

that Aki Ross *could* have functioned as the ideal prototype of what a “converged,” transmedia character might look and behave like. However, *Final Fantasy*’s scrutinizing mode of address ensures that spectators evaluate Aki primarily for her perceived success or failure in replicating cinematic representation rather than her functionality and versatility within digital space. Furthermore, Aki’s multiple operators — the many (suppressed) bodies that inform her creation — trouble the one-to-one mapping between user and avatar deemed crucial to its optimal functioning. Boellstorff observes an uncertainty created by *Second Life* avatars who have multiple users not unlike the uncertainty caused by the hybrid figure of Aki Ross; a woman who perplexes her husband’s online community by inhabiting his musclebound avatar while he’s at work, for example, causes similar unease regarding who, exactly, is bringing the digital human figure to life.⁴² Conversely, Boellstorff notes that the practice of a single user having multiple avatars is decidedly more common and accepted in virtual worlds, with such users typically having a primary avatar and several alternative or “alt” avatars they operate more occasionally, a relationship not unlike that between Hanks and his multiple characters. (It’s worth noting that, while Zemeckis’s production team included computer animators who practiced both keyframing and mirror work, their contributions are minimized in the films promotional materials and DVD extratexts so as to emphasize the isomorphic relationship between Hanks and his digital characters.)⁴³

⁴² Boellstorff, *Coming of Age*, 131-132.

⁴³ Indeed, animation enthusiasts even speculated that this repression of the animators’ contributions may not have only occurred at the promotional level,

The importance of an isomorphic relationship between gamer and avatar is evident in Robbie Cooper's photo book *Alter Egos: Avatars and Their Creators*, wherein gamers are juxtaposed with images of their avatars in a fashion highly reminiscent of the images featuring Hanks alongside his various characters. Like the promotional literature surrounding *The Polar Express*, Cooper's images and the text that accompanies them not only emphasize the diverse range of appearance modifications and super-human skills these individuals possess courtesy of their avatars, but the incredible diversity of profile subjects contained therein also reinforces the growing ubiquity and persistence of the human-avatar relationship across boundaries of age, gender, and race.

Lisa Bode asserts that the uneasy contemporary reception of the digital actor is in part informed by broader cultural anxieties surrounding what it means to be human within the increasingly dominant conceptual framework of cybernetics, which, in Hayles's words, rewrites human bodies as "information processing devices receiving and transmitting signals to effect goal-directed behaviour."⁴⁴ Building on Marshall MacLuhan's theory of auto-amputation, Bode argues that our imbrication in these elaborate datascares can lead to a steady numbing of the nervous system, forcing us to retreat ever-inward while

and that Zemeckis may have discouraged his animators from intervening upon the "purity" of Hanks's performance data: "I've heard from friends in the industry that Zemeckis was holding back his animators, preferring to let the mocap performances speak for themselves whenever possible. I understand the reasoning behind this. If you have good actors, and you've captured their performance – on film or on a computer – you want to keep that pure." Anonymous, January 4, 2005, comment on "The Polar Express: A Virtual Train Wreck," accessed July 6, 2011, http://wardomatic.blogspot.ca/2004/12/polar-express-virtual-train-wreck_18.html.

⁴⁴ Hayles, *How We Became Posthuman*, 37.

mobilizing computer technologies as a kind of compensatory prosthesis. However, by appropriating the language of empowerment that largely defines the current relationship between gamer and avatar, *The Polar Express* seeks to construct its digital human characters as extending and enhancing human agency, rather than enabling a shrinking retreat within the increasingly anesthetized human form. This language of empowerment pervades every profile that accompanies Cooper's images. For example, when asked about her experience during the six hours a week she gets to navigate *Second Life* as punk rock builder Jova Song (Fig. 5), English housewife Charmaine Hance enthuses about the freedom it provides her to transcend the often-constraining roles of wife and mother.⁴⁵



Fig. 5

⁴⁵ Robbie Cooper, *Alter Egos: Avatars and Their Creators* (London: Boot Ltd, 2007), np.

Meanwhile, for 34-year-old Texan Jason Rowe, the 80 hours per week he spends as ranged weapons specialist and crack marksman Rurouni Kenshin (Fig. 6) in *Star Wars Galaxies* transform him from being wheelchair and respirator-bound to being able to “ride an Imperial speeder bike, fight monsters, or just hang out with friends at a bar . . . The computer screen is my window to the world.”⁴⁶ These players are, in other words, just as excited as Hanks about the transformations and abilities made accessible to them via their digital stand-ins.



Fig. 6

These personal stories are reinforced by Nick Yee and Jeremy Bailenson’s recent study, which revealed that users who fashion more attractive and supremely abled “slider selves” benefit from what the authors have termed the Proteus Effect, consistently behaving more assertively in their online interactions with others thanks to the confidence boost from their enhanced self-

⁴⁶ Cooper, *Alter Egos*, np.

representation.⁴⁷ Meanwhile, Boellstorff's study in *Second Life* indicated that this bolder and more assertive behaviour may actually spill back into the user's real life, helping him overcome the social constraints and particularities of his "actual" physicality.⁴⁸ Williams, Moore and Kennedy's examination of role-playing player-avatar relationships in MMOs further reinforces how avatarial experimentation can ultimately influence players' behaviour in their off-line lives. As one dedicated gamer reveals,

(i)n role playing I am able to play characters similar to myself—but different in some ways. Take one Kerran character—he is similar to me in some ways, but even more outgoing and VERY flirty in a sincere way, just like I would be if I was flirty in RL—but in RL I am NOT flirty. *By "trying out" some of these characteristics, I sometimes find aspects of the character I like and I might try to weave them into my daily behaviour.* Other things, of course, I throw out that don't work or aren't practical. IE- I'm married, so being flirty all the time isn't practical at all;) (Frank, age 28)⁴⁹

As Rehak, Waggoner, Gee and others assert, avatars simultaneously provide their user an extension of and conduit for the "self," at the same time as they enable their experimentation and engagement with a transformative "other." Directed by their users' actions and yet liberated from many of their real-world constraints, these "supernatural ambassadors of agency," in Rehak's terms, allow players to explore aspects of their own materiality in fantasy form.⁵⁰ Contrary to some of

⁴⁷ Nick Yee and Jeremy Bailenson, "The Proteus Effect: The Effect of Transformed Self-Representation on Behavior," *Human Communication Research* Vol. 33 (2007): 271-290.

⁴⁸ Tom Boellstorff, *Coming of Age*, 129.

⁴⁹ Williams, Kennedy, and Moore, "Behind the Avatar," 188. Emphasis mine.

⁵⁰ Rehak, "Playing at Being," 105-106.

the more alarmist conceptions of the dissolution of the human body in cyberspace and cybernetics, Rehak asserts that “we create avatars to leave our bodies behind, yet take the body with us in the form of codes and assumptions about what does and does not constitute a legitimate interface with reality — virtual or otherwise.”⁵¹

There is little doubt or uncertainty within this user-avatar nexus as to who is bringing the digital character to life. The user not only “animates” the digital image through their actions, but does so after countless hours spent customizing the most minute details of their outward appearance, adjusting the head shape, facial structure, hair length, skin colour and sartorial choices of their avatar through a combination of in-game affordances and downloadable skins. By positioning Hanks as the masterful operator of multiple avatars within *The Polar Express*’s digital diegesis, the film’s promotional materials in part sought to mitigate the more uncanny effects of the digital human. This reconfiguration of the digital human also points up the more generally converged nature of cinema and video games, and the possibilities for transmedia intervention upon the film’s digital storyworld, which will be discussed more fully in the next chapter. It’s worth noting briefly that those spectator-consumers who wished to take up a similarly empowering relationship with an interactive avatar in the context of *The Polar Express* game were ultimately disappointed by the limitations of its characters dictated by their obligations as movie-licensed intellectual property. Cinematic performance capture may have allowed Hanks to “play” anyone, but

⁵¹ Rehak, “Playing at Being,”123.

gamers were stuck with a poorly rendered version of only one of Hanks's cinematic avatars (Hero Boy) and allowed no opportunity to meaningfully customize or intervene upon his appearance and/or abilities.

It is within a framework of knowledgeable engagement with and manipulation of the digital character that the reception of *The Polar Express* and its characters must be situated. Critical responses to *The Polar Express* invoked a similarly uncanny vocabulary to that surrounding *Final Fantasy*: its digital characters were similarly faulted for being eerie, zombie-like, and emotionally vacant.⁵² However, while *Final Fantasy*'s reception was marked by vague unease about character ontology and liveliness (or perceived lack thereof), *The Polar Express* and its characters were subject to an increasingly discerning and critical mode of CGI spectatorship that demanded to know what exactly had gone wrong and why — a mode of engagement that, as Henry Jenkins, Richard Grusin, Chuck Tryon and others have documented, increasingly defines digital media consumption in the age of media convergence.⁵³ Debates abounded in the blogosphere between animators and technology writers about the perceived problem of the uncanny valley; some animators and CGI enthusiasts put forth

⁵² See, for example, Paul Clinton, "The Polar Express is a creepy ride," *CNN.com*, November 10, 2004, accessed July 6, 2011, http://articles.cnn.com/2004-11-10/entertainment/review.polar.express_1_polar-express-film-series-sensors?_s=PM:SHOWBIZ.

⁵³ See, for example, Jenkins, *Convergence Culture*, 1-24, Grusin, "DVDs, Video Games, and the Cinema of Interactions," Tryon, *Reinventing Cinema*. As addressed in Chapter 3, media conglomerates often actively cultivate this type of knowledgeable engagement in order to ensure exhaustive consumption of their various products; however, as Jenkins in particular has noted, this doesn't necessarily preclude consumers from using this knowledge in ways that media producers don't expect or sanction.

prospective solutions, while others argued for its insurmountability. One enterprising animator, Ward Jenkins, even took it upon himself to correct some of the perceived flaws in character facial expressions by re-working several film stills in Photoshop (see Fig. 7 and 8), an endeavour that directed an unprecedented amount of traffic to his blog and prompted a lively debate about human character animation that continued for several years thereafter.⁵⁴

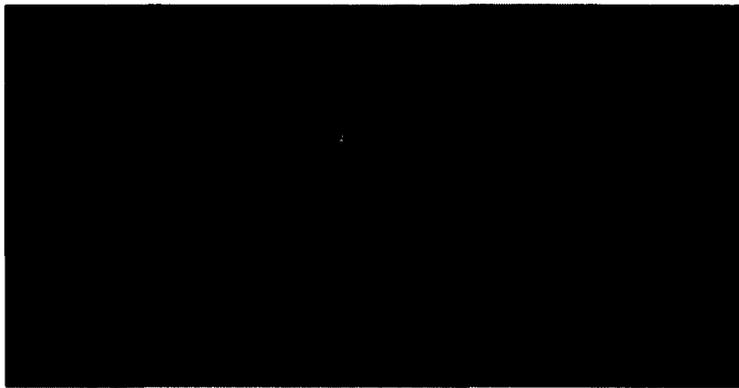


Fig. 7: A still frame of Hero Boy “before”



Fig. 8: Hero Boy “after”

⁵⁴ See Ward Jenkins, “The Polar Express: A Virtual Train Wreck,” *The Ward-o-Matic* (blog), December 5, 2004, accessed July 10, 2011, <http://wardomatic.blogspot.ca/2004/12/polar-express-virtual-train-wreck.html>; Ward Jenkins, “The Polar Express: A Virtual Train Wreck (conclusion)”, *The Ward-o-Matic*, December 18, 2004, accessed July 10, 2011, http://wardomatic.blogspot.ca/2004/12/polar-express-virtual-train-wreck_18.html.

In the film's extratextual materials, Zemeckis sought to suppress any additional animator involvement, a strategy that should have eased the uncomfortable reception of its digital human characters by foregrounding Hanks's clear-cut agency as controller-operator of his cinematic avatar. But as Allison argues and the positive reception of Jenkins's interventions suggests, the "interactive" consumer-spectator can reconcile the co-presence of real and animated bodies so long as they are given adequate extratextual guidance to do so. The "before" and "after" juxtapositions between Jenkins's images, which the animator explains step by step, are indeed striking, with several minor adjustments of eyebrows, eyes and mouths making a world of difference to the character's expressiveness. While Jenkins's adjustments to a series of still frames can't redress the larger issue of a feature-length motion picture in which character appearance *and* movement are deemed unsettling, this type of knowledgeable response to, and even skilled intervention upon, the figure of the digital human suggest a possible future in which these figures may not seem so strange after all. In this possible future, the literacy and agency of digital media users — cultivated in everything from their skilled creation and manipulation of "slider selves" within video games and virtual worlds, to their encyclopediac consumption of DVD extratexts, to their facility with home animation software — could re-define consumer-spectator engagement with the digital human.

All Aboard *The Polar Express*: A playful change of address

Of course, Hanks doesn't actually get to explore the exhaustive digital storyworld of *The Polar Express* as his various avatars. That vicarious pleasure is left to the audience members, who find themselves hurtled and hurled through a variety of immersive, thrill-ride sequences while aligned with Hanks's characters. While *The Polar Express*'s promotional materials urge spectators to examine Hanks's digital characters for what they can do rather than strictly for how photorealistic they look, the film's mode of address strives to extend this agency, or at least the bodily sensation of it, to the spectator. If the "traditional" indexical relationship between real-world referent, the photographic image, and the spectator who apprehends it has been conceptualized as one of privileged "contact," *The Polar Express* reconfigures the triangulation between Hanks, the digital image, and the consumer-spectator as one that privileges "control," however illusory that promise may be.

Throughout cinema's relatively brief history, a resurgent *topos* of immersion has always marked cinema's reaction to and intertwined relationship with co-existent media forms, and an appeal to an active spectator within this changing mediascape. What *has* changed are its intentions, which have shifted from being competitive to collaborative within an increasingly concentrated, vertically and horizontally integrated entertainment industry, as well as the kind of activity that its presumed spectator may indeed be capable of. *This is Cinerama* (Merian C. Cooper, 1952) sought to compete with the rival mediums of television and theater via its outsized spectacle and seemingly participatory

mode of address,⁵⁵ while ride-films such as *Star Tours* (Denis Muren, 1987) and ride-like films such as *Jurassic Park* sought to shore up the continuing relevance of both “cinema” and “the spectator” in the information age.⁵⁶ *The Polar Express* seeks to address a spectator who *won't* necessarily view the film version as the primary media text, but rather will make active connections between and

⁵⁵ As John Belton has shown in his study of the widescreen cinema formats that proliferated in the 1950s and 60s (including Cinerama, Cinemascope, Todd AO, and VistaVision), these formats have been rightly viewed as a “spectacular” means of product differentiation from the widely-adopted, small screen entertainment medium of television credited in large part with the precipitous postwar drop in cinema attendance. However, as Belton points out, it is also crucial to acknowledge how these newly immersive films sought to remediate more 'recreational' leisure activities that, as disposable income and leisure time increased in tandem, also competed with the cinema at the time — namely, theme parks and legitimate theater, both of which were thought to address a more active, engaged spectator than television's allegedly passive one. This notion of an “active” audience was central to how these widescreen formats were marketed. The promotional materials for *This is Cinerama*, for example, depicted delighted audience members floating in the midst of the cinematic spectacle whilst still seated in their theater chairs. Such immersive films were even promoted as a safe alternative to the newly global possibilities for tourism opened up by air travel, hence the recurrence of the travelogue as a preferred narrative form. John Belton, *Widescreen Cinema* (Cambridge, Mass: Harvard University Press, 1992), 186-189.

⁵⁶ Scott Bukatman observes a proliferation of both “ride-films” in the contemporary theme park and similarly engulfing special effects-driven films in the 1980s and early 1990s, and theorizes a very different kind of active spectator in relation to such attractions. Bukatman terms this contemporary mobilization of immersion “hypercinematic,” asserting that its emphasis on “spatial penetration and kinetic achievement” ultimately functions to reassure a viewer who fears that the embodied human subject may no longer matter in the “invisible” digital spaces of the electronic age. See Bukatman, *Matters of Gravity*, 13-31. This emphasis on active spatial penetration and kinetic achievement will be familiar to anyone who has ever been thrashed about by *StarTours'* hydraulically controlled spaceship as it weaves its way through a subjectively-screened version of 'electronic' outerspace; it is difficult to fear the utter dissolution of one's subjectivity, Bukatman argues, when one's body remains so central to the whole experience. For Bukatman, “if the anxiety provoked by electronic culture is a function of its non-visibility, then an overemphasis on visibility and immersion is only to be expected.” See Bukatman, “Zooming Out,” 267.

creative interventions upon its multiple media incarnations, some of which will offer interactive control of the same scenarios (provided the consumer acquires the necessary gaming hardware and software in order to achieve this control.) As Erkki Huhtamo asserts, the technologically-mediated quest for immersion must always be understood as a construction of culturally, economically, and ideologically-specific circumstances.⁵⁷ In the contemporary context of Conglomerate Hollywood, “immersion” is both as a visual mode of address *and* a franchise strategy linked to the horizontal integration of media conglomerates and the need to encourage viewers to move across media platforms. Unlike cinema’s past efforts to use an engulfing phenomenology to differentiate itself from competing entertainment media, this most recent emphasis on immersion intentionally remediates certain visual tropes from digital games and interactive virtual worlds in order to emphasize the ways in which spectator-consumers can and should engage with a media property across multiple platforms in order to get the fullest entertainment experience. As Robert Alan Brookey and Paul Booth argue,

It is not in the interests of the film franchise producer to have any single product offer a completely immersive experience. For the cross-promotional and synergistic practices of a franchise to work, the consumer (and the player) must be reminded that there are other products to be consumed.⁵⁸

⁵⁷ Erkki Huhtamo, “Encapsulated Bodies in Motion: Simulators and the Quest for Total Immersion,” in *Critical Issues in Electronic Media*, ed. Simon Penny (Albany: SUNY Press, 1995), 160-161.

⁵⁸ Robert Alan Brookey and Paul Booth, “Restricted Play: Synergy and the Limits of Interactivity in The Lord of the Rings: Return of the King Video Game,” *Games and Culture* Vol. 1 No. 3 (2006): 227.

I'll suggest that, in trying to appeal to an active, transmedia consumer within this changing mediascape, Zemeckis's films construct the digital human as a kind of avatar paired with an immersive mode of address. However, given filmmakers' and game designers' still somewhat disparate expectations for consumer investment in and intervention upon their respective media forms, such activity doesn't always yield satisfactory or successful results.

Released simultaneously as a conventional theatrical feature, a 3D IMAX feature, and a Sony PlayStation 2, Nintendo GameCube and PC game, *The Polar Express*'s extratextual emphasis on the lived actor driving the malleable digital image functions in conjunction with the film's highly-subjective, exploratory mode address to remediate the increasingly influential digital medium of the video game, pointing towards a future of transmedia consumption where Hanks's avatars could also serve as avatars for the spectator-consumer. However, by emulating the visual grammar and modes of character alignment found in interactive virtual worlds so closely (and, at times, excessively), *The Polar Express* risks jeopardizing more conventional modes of spectatorial alignment with its characters as cinema characters.

Murray Smith asserts that, even in those situations when we are placed in a seemingly subjective point-of-view alignment with a given character, we typically relate to screen characters through "acentral" imaginative processes, engaging with them primarily as fictional entities rather than pure extensions of

self.⁵⁹ Smith critiques a prevailing “folk” model of identification within cinema studies and media culture more broadly for how it

implies a singular and unyielding relationship between the spectator and a character, it conflates perceiving and constructing a character with affectively responding to a character; and it produces a crude, dualistic model of response, in which we either identify, or we don't. There is also often the sense...that the vicarious experience of the spectator involves a loss of normal consciousness . . .⁶⁰

Contrary to this model of largely *empathic* response, wherein spectators “simulate or experience the same affect or emotion experienced by the character” to such an extent that they “lose” normal consciousness, Smith asserts that cinema spectators apprehend and understand characters primarily through *sympathetic* processes, wherein “we cognitively recognize an emotion and then respond with a different emotion based on our evaluation of the character.”⁶¹ While empathic or “central” processes serve as mechanisms that help us understand the film’s fictional world and its characters — evident, for example,

⁵⁹ Smith revises the prevailing monolithic, often imprecise models of character identification within cinema studies with one based on three distinct, yet interrelated, levels of spectatorial engagement with film characters: recognition (the basic level at which spectators grasp and construct characters), alignment (the narrative and formal ways in which a film gives spectators access to the actions, thoughts and feelings of a character) and allegiance (the way a film marshals spectatorial sympathies for or against a given character). Drawing on analytic philosophy and cognitive anthropology, Smith asserts that this multi-leveled model of active engagement comprises an overarching “structure of sympathy” through which understand and relate to film characters. See Smith, *Engaging Characters*, 81-95.

⁶⁰ Smith, *Engaging Characters*, 2.

⁶¹ Smith, *Engaging Characters*, 102. In this sense, Smith’s distinction between empathic and sympathetic modes of character engagement is similar to Tronstad’s distinction between identifying primarily “as” one’s character (embodied empathy) and “identifying with” a fictional character (narrative empathy).

in our affective mimicry of a distraught character's facial expressions — Smith asserts that our affective reactions are largely subsumed and rationalized by the acentral workings of what he terms the “structure of sympathy:”

initial simulations and mimickings of the emotional states of characters are constantly filled out, modified, sometimes overturned by our cognitive construction of the narrative (that is, by what we come to know through our ordinary perceptual, conceptual, and inferential processing) In this sense, if we wish to characterize the overall structure and nature of our responses to fictional characters, we must argue that such responses are *acentral*. The structure of sympathy usually acts centripetally, 'pulling in' the insights of simulation and mimicry and affording them no privilege over more cognitive assessments. The typical functioning of empathy . . . is thus twofold: first, to act as a searchlight or probe in our construction of the narrative situation; and secondly, to generate in the viewer, in somewhat attenuated form, the predominant emotions of the characters in the story world. They function to 'attune' the spectator to the emotional tenor of the narrative.⁶²

Smith's account of how we primarily engage sympathetically (rather than empathically) with cinema characters provides a useful starting point for understanding why films that remediate gamic modes of address may pose certain challenges to their spectators. While sympathetic, acentral imagining may dominate our engagement with film characters, central processes typically prevail in our engagement with video game avatars. Daniel Kromand argues that the direct, causal connection between player action and diegetic events in most games means that players experience a primarily empathic mode of engagement whereby they “inhabit” their avatar during gameplay as much as they apprehend

⁶² Smith, *Engaging Characters*, 103.

them as a fictional character.⁶³ In this case, our affective responses don't just attune us to the emotional tenor of the narrative. Instead, they are ultimately crucial to our successful navigation and survival within game space, and thus determinative of the narrative itself. This is not to suggest that players only relate to their avatars empathically. As Katie Salen and Eric Zimmerman argue and as will be addressed further in the next chapter, the belief that the player completely identifies with and "becomes" the character is symptomatic of a nascent "immersive fallacy" of total engulfment in game space that the authors view as being detrimental to successful game design and character engagement.⁶⁴ Rather, players are constantly shifting between cognitive frames that alternately place them either "inside" their avatar in a relationship of direct identification, or very much outside of it, aware of the character as an artificial construct and fictional entity, as well as their own status as players manipulating a tool or "puppet" according to the rules of the game. This "hybrid consciousness," to borrow Salen and Zimmerman's term, is one of the unique pleasures of gameplay.⁶⁵

Despite this hybridity, many games seek to prioritize our empathic alignment with our avatar above all else through an emphasis on "perceptual immersion," the monopolization of the player's senses through the type of highly embodied, tightly subjective navigation of digital space most common to first

⁶³ Kromand, "Avatar Categorization," 401. Examples of acentral identification in video games are rare, Kromand asserts; however, he points to *The Sims* as a case where the degree of player control is greatly reduced by character AI, thus forcing the player to identify acentrally and perceive the avatars as "emotional third persons."

⁶⁴ Katie Salen and Eric Zimmerman, *Rules of Play: Game Design Fundamentals*. (Cambridge, Mass; London: MIT Press, 2004), 453-455.

⁶⁵ Salen and Zimmerman, *Rules of Play*, 453.

person shooter and third person action-adventure games.⁶⁶ And indeed, with its origins in the immersive phenomenology of such wildly popular, early first-person shooter games as *Doom* (id Software, 1993) and *Quake* (id Software, 1996), perceptual immersion continues to be foregrounded in many of the best-selling and critically acclaimed game titles of the past decade; take, for example, our claustrophobic, first-person exploration of the crumbling underwater dystopia of Rapture in *Bioshock* (Irrational, 2007) and *Bioshock 2* (2K Marin, 2010), or our subjective alignment with Gordon Freeman as he navigates the zombie-laden corridors of the Black Mesa research facility in *Half-Life* (Valve, 1998) While *World of Warcraft* features a non-diegetic, “informatic” layer of inventories visible at all times, the player still navigates Azeroth from a tightly-held, third-person alignment with their avatar, a perspective similarly adopted by *Second Life* users in relation to their avatars, whether in casual conversation with other avatars or flying from one realm to the next.

By remediating the perceptually immersive, central processes of character engagement more readily associated with video games, virtual worlds and their avatars, *The Polar Express* jeopardizes more conventional modes of alignment with its characters. For Bolter and Grusin, remediation entails a dual process wherein a new medium striving to create a sense of “immediacy” in its viewers/users (as a sense of “liveness” or presence that backgrounds mediation)

⁶⁶ Diane Carr, “Space, Navigation and Affect,” *Computer Games: Text, Narrative and Play*. Eds. Diane Carr, David Buckingham, Andrew Burn and Gareth Schott. (Cambridge: Polity Press, 2006), 69. Carr contrasts perceptual immersion with the deeper, more negotiable psychological immersion we experience manipulating and operating characters from a more distanced perspective within isometric RPGs.

ultimately must rely upon noticeably emulating other media in order to do so, a condition the authors term “hypermediacy”:

Although each medium promises to reform its predecessors by offering a more immediate or authentic experience, the promise of reform inevitably leads us to become aware of the new medium as a medium. Thus, immediacy leads to hypermediacy.⁶⁷

In their analysis of the immensely popular PC game *Myst*, Bolter and Grusin observe that the game constructs a feeling of immediacy by emulating certain codes and conventions of cinema, including its evocation of a photorealistic, 3D storyworld that the player inhabits or explores while aligned with a character. Player appreciation of this immediacy, however, ultimately relies upon the second-order recognition of how the game remediates film, drawing upon the player’s own knowledge of and imbrication in established cinematic conventions in order to create an often enjoyable sense of (hypermediated) recognition.⁶⁸ A similar dual logic of immediacy and hypermediacy is at play when cinema mobilizes a “game-like” topos of immersion. These sequences use a freewheeling virtual camera and highly-subjective character alignment to remediate the 360-degree explorations of computer-generated space possible in digital games; in so doing, they can create a pleasurable, hypermediated sense of immediacy for those spectators familiar with these far more flexible and extensive possibilities for navigation and exploration within digital game space.

In *The Polar Express*, though, this interplay of immediacy and hypermediacy doesn’t necessarily yield pleasurable results. Especially in the

⁶⁷ Bolter and Grusin, *Remediation*, 19.

⁶⁸ Bolter and Grusin, *Remediation*, 94-99.

context of the film's 3-D IMAX release, the affective, "hypermediated" qualities of *The Polar Express*'s immersive mode of address aren't readily subsumed by our cognitive construction of the narrative, and as such, they don't so much attune spectators to the emotional tenor of the narrative as they make them feel compelled to explore and navigate diegetic space "as" their character. While cinema may selectively construct its environments to serve a specific narrative trajectory, games must create what Alexander Galloway calls "actionable spaces" — complete, exhaustively detailed and navigable three-dimensional digital worlds within which the player, rather than the director, controls the "camera," and (relatively) unrestricted gameplay occurs in real time.⁶⁹ Although *The Polar Express* lacks the interactive component that many have argued is crucial to the experience of presence within game space, it remediates certain immersive qualities of this actionable space. As its much-circulated promotional materials attest, the film's computer-generated environments were, in fact, completely constructed for the possibility of 360-degree exploration, which Zemeckis enacts both through his prolonged, subjective alignment with certain characters (Fig. 9) as they run, ski, jump and plummet through these elaborate spaces, as well as through those sweeping, objective perspectives that serve to give spectators vital clues about the environment and potential obstacles that may lie ahead. The highly publicized 3D Imax version of *The Polar Express* pulls the viewer even further into these seemingly "actionable" digital spaces. While the viewer may not actually be able to control its characters, *The Polar Express* constructs the

⁶⁹ Galloway, *Gaming*, 64.

sense of a unified digital play space that would be delightful to explore further with a controller or keyboard in hand.

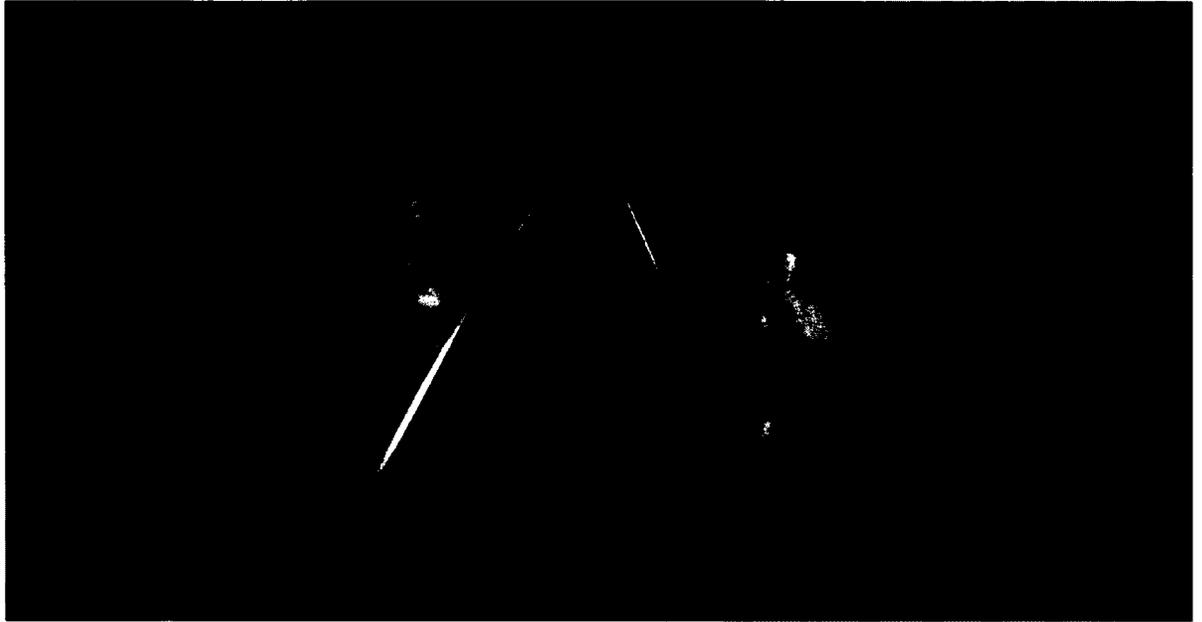


Fig. 9

While *Final Fantasy* renders Aki Ross's gestures and facial expressions spectacular through an intense diegetic and extra-textual scrutiny of its characters' photorealistic appearance and, by extension, the perceived threat they pose to live-action cinema, it is the game-like digital world of *The Polar Express*, and our tight alignment with its characters as they hyperkinetically navigate that world, that is its true source of spectacle. This immersive world largely subsumes Hanks's performance(s), prioritizing the expedient spatial exploration of Hanks's digital avatars over their photographic verisimilitude and realistic movement.⁷⁰

Rather than watching Hanks's performance and evaluating its *believability*, or

⁷⁰ These diegetic strategies *encourage* a functional, exploratory alignment with Hanks's characters rather than their harsh evaluation according to standards of cinematic photorealism; as demonstrated by the interventions of the blogosphere discussed above and harsh reviews of *The Polar Express*, they don't necessarily succeed.

scrutinizing his characters's appearance for how they succeed or fail in achieving photorealism, our close alignment with them during these immersive sequences encourages us to evaluate them for their *functionality* instead — Hero Boy's ability to jump or duck at precisely the right moment, for example, or run/ski/steer his way through a given deadline-driven scenario and emerge unscathed.⁷¹ By mobilizing a highly gamic mode of perceptual immersion in order to establish this functional alignment, *The Polar Express* prioritizes a strongly empathic, central mode of engagement with its characters.

While cinema tends to mobilize a “disembodied” gaze, the floating, moving perspective that corresponds with that of the camera “eye,” to express the subjective perspective of a character, it rarely includes a self-referential examination of the character's body as the vehicle of that perspective. Character-driven video games, on the other hand, tend to acknowledge and even scrutinize the digital body of the avatar as the vehicle of the player's perspective. This is particularly foregrounded in FPS games which align players to “see” and experience the game space as their avatar does, right down to the visible presence of his/her gun-wielding arms encroaching into the frame; “we” must reload ammunition, change weapons, and examine clues from the perspective of an embodied gaze, not a disembodied one, an alignment which heightens the

⁷¹ Even those scenes featuring the more presentational mode of address necessitated by the film's musical numbers emphasize how the “captured performances” of real actors are *not* held prisoner by the animated image in the manner that *Final Fantasy*'s were, but rather are liberated from any lingering constraints of the corporeal body. (This is evident, most notably, in the frenetic “Hot Chocolate” sequence, wherein Hanks's train conductor and a team of waiters dance, backflip and moonwalk their way through serving refreshments to a rapt audience of children.)

player's sense of immediacy and presence within a given game space.⁷² As the rendering speed and sophistication of perceptually immersive games continues to increase, players are no longer exclusively limited to the strictly embodied exploratory perspective of their avatars. Games that offer the option of playing from a tightly held third-person perspective typically also feature fluid virtual camera controls that allow the player to pull out from this close alignment to a more objective perspective, expanding the player's sense of spatial orientation and topographical detail. While it could be argued that this inclusion of such multiple perspectives is simply another example of video games emulating certain visual tropes of cinema, such views are distinguished by their mobilization strictly for specific aspects of clue or goal-oriented game play, as well as the impossible fluidity and scope of the virtual camera movements that render them. As Henry Jenkins and Kurt Squire assert, games tell stories through their organization of immersive "contested spaces," rewarding those players who learn to scan these detailed, dynamic spaces for any sort of competitive advantage.⁷³

⁷² Alison McMahan, "Immersion, Engagement and Presence: A Method for Analyzing 3-D Video Games," in *The Video Game Theory Reader*, eds. Mark J. P. Wolf and Bernard Perron. (New York: Routledge, 2003), 71. McMahan pinpoints the origin of this immersive "embodied" perspective in the 1992 game *Wolfenstein 3-D* (id Software), and asserts that its evolution in the increasingly detailed virtual worlds of *Doom* (id, 1993), *Quake* (id, 1996), and *Unreal* (Epic MegaGames 1998) has actually set the new standard for user "presence" in virtual space to which creators of virtual reality interfaces now aspire.

⁷³ Henry Jenkins and Kurt Squire, "The Art of Contested Spaces," in *Game On: The History and Culture of Video Games*, ed. L. King (New York: Universe, 2002), 65.

In the first of several “thrill ride” sequences, Hero Boy’s treacherous ski across the top of the train, prolonged first-person point-of-view shots suggest a perspective that is decidedly embodied. Ski tips poking out into our line of sight below, “we” dig in furiously as the train chugs upward and threatens to throw us off the back, and are then rewarded with the dizzying kinesthesia of hurtling down the train once it crests the hill and begins to descend. These subjective shots are periodically punctuated by swooping objective perspectives of the top of the train, giving the viewer crucial information about approaching obstacles, goals, and deadlines — in the case of this scene in particular, the imminent deadline of getting off the top of the train prior to entering Flat-Top Tunnel, which forces the decisive action of leaping into a coal car just in time. In the second such sequence just moments later, which positions Hero Boy, Hero Girl, and the conductor at the front of the train as it dips and plunges through peaks and troughs of Glacier Gulch, the use of subjective alignment becomes even more pronounced, alternating between a disembodied gaze where the camera/eye seems affixed to the front of the train and the “embodied” gaze of Hero Boy, his presence evident in the small hands that grip the safety bar in front of him. Zemeckis’s cinematography becomes particularly stagy in its virtual virtuosity during this sequence.⁷⁴ Several “first person” perspectives rotate around to reveal the face of the character ostensibly doing the looking, while gravity-defying

⁷⁴ In both interviews and press releases, Zemeckis admitted that it was both liberating and daunting to render and then edit a film where he could, conceivably, choose from an infinite number of camera angles and movements.

aerial shots of the speeding train reveal the next imminent deadline/obstacle: an icy lake that has frozen over the tracks.

As *The Polar Express* derails and slides across the lake, Hero Boy's actions become decidedly more embodied. Aligned with his gaze, "we" look down at our leg and slipper as the slipper begins to come loose, threatening to release Hero Girl's ticket into the darkness. Arms outstretched in front of us, we grab at the fluttering ticket several times unsuccessfully until, with the help of Hero Girl, we manage to secure it.⁷⁵ In such action-driven sequences especially, Zemeckis tends to eschew the seamless assembly of relatively brief shots associated with continuity editing in favour of frenetically mobile long takes made possible by the fact that the only camera he must control exists in the virtual space of the computer. In such sequences, perceptual immersion and empathic alignment take priority over psychological immersion and sympathetic engagement, rather than being subsumed or absorbed by them in the manner Smith suggests. However, rather than allowing our affective responses to shape narrative events in the manner enabled by video games, *The Polar Express* forces the viewer to ride along passively, or "on rails," as it were.

Diane Carr contends that models of cinematic identification cannot simply be mapped onto the relationship between player and avatar, since such theories were largely developed under the assumption of the film spectator's relative stillness and passivity in front of the screen: "The player's relationship to on-screen events and bodies, by contrast, is dependent on the user taking action, and

⁷⁵ <http://www.youtube.com/watch?v=Cht63QybtIA>

any theory of ‘ergodic identification’ would have to allow for this.”⁷⁶

Consequently, models of player-avatar identification do not map seamlessly onto spectatorial relations with cinema characters, no matter how “playful” they may seem. While Smith’s model of cinematic identification presumes an active spectator constantly involved in evaluating and renegotiating their relationship to the characters on screen, the user’s inability to take direct action upon and through these characters remains a crucial difference between cinema and video games, and a probable source of frustration when the former appropriates the perceptually immersive strategies of the latter.

As the train approaches the North Pole, our perspective shifts from that of Hero Boy, admiring its twinkling lights in the distance, to that of Zemeckis’s gravity-defying “objective” camera. The camera pulls away from the train and flies over the fortress-like walls of what appears to be a quaint (if rather quiet and austere) European village to reveal networks of winding, seemingly abandoned cobblestone streets and the multiple train tracks that traverse them. From an aerial shot of one such street we then make a dizzying descent to street level just in time to catch The Polar Express as it chugs serendipitously into the shot. Zemeckis then pulls back through the train window to resume the children’s perspective as they watch the same quiet streets roll past. When, moments later, Hero Boy and Hero Girl find themselves trapped in a runaway railcar as it careens down the various twists and turns of these treacherously steep cobblestone streets, we once again take up a primarily first-person perspective.

⁷⁶ Carr, “Space, Navigation, and Affect,” 68.

This perspective is interrupted minimally by cutaways of the car's wheels moving ever faster and brief reaction shots of the children's terrified faces; as broader knowledge of our surroundings is provided by Zemeckis's roving camera, viewers can experience this subjective alignment with minimal disorientation save that prompted by the vicariously experienced sensation of motion. An embodied alignment with Hero Boy, while not quite so prolonged as that experienced during the Glacier Gulch sequence, is evident as we search out and activate the car's emergency brake. "Our" arm stretches out before our gaze, cranking the wheel that brings the car to a screeching halt.

Such subjective alignment also demarcates the children's subsequent journey on a high-speed super-sleigh belonging to Santa's elves, followed by their trip down a spiraling slide used to transport presents. Again, Zemeckis's camera periodically pulls out of its first-person perspective to inspect the details of the larger environment that his characters are negotiating; however, the overwhelmingly dominant impression on the viewer is one of dizzying, embodied kinesthesia as they hurtle through these digital spaces. In the 3D IMAX version of the film, the kinesthesia of these sequences is reinforced by engulfing, three-dimensional imagery that further heightens an embodied sensibility, prompting viewers in the screening I attending to lean forward, backward, or shift from side to side according to the presumed bodily actions and reactions of the character they were aligned with. The frenetic twitches and evasions of the enraptured player reverberate through the body of the cinema spectator, who may not relate to the bodies on screen as analogous to their own,

but who are promised a kind of vicarious mastery and kinesthetic control over them as they would a digital avatar. (It is also worth noting that such reactions were not limited to IMAX spectators alone. Similar movements and evasions were evident in the 2D screening I attended, a format that would actually be considered more comparable to the current, 2D television or computer screen interface between player and avatar.)

Whether this empathic mode of alignment was satisfactory or even comfortable for the cinema spectator is another matter entirely. After all, the viewer's affective responses have no impact on "their" character's fate, nor the outcome of the narrative. Indeed, *Variety* went so far as to dub Zemeckis's film "The Bi-Polar Express" for how it oscillated wildly between faithfulness to the sentimental children's book that was its source material and hurtling the unfortunate viewer through these recurrent, game-like sequences; as one critic put it, *The Polar Express* fails spectacularly by the conventional standards of character-driven Hollywood cinema, "pumping the nostalgia one moment, advertising future theme-park roller coasters the next."⁷⁷ Still, the comparative box office and critical success of the IMAX incarnation of *The Polar Express* (which earned 25% of its \$163 million domestic take on just 83 IMAX screens,⁷⁸ and praise from reviewers who disliked its 2D version⁷⁹) suggests some degree of spectatorial interest in being drawn even further into the playful space of the

⁷⁷ Ed Park, "Strangers On A Train: Wobbly Cartoon Spectacle Lacks Human Element," *Village Voice*, November 16, 2004, 64.

⁷⁸ Anthony Breznican and Gary Strauss, "Where Have All the Moviegoers Gone?" *USA Today*, June 23, 2005, Section L:1.

⁷⁹ John Waterhouse, "IMAX Express Puts Viewers on Track for Fab 3-D Thrills," *Atlanta Journal-Constitution*, November 26, 2004, 1H.

film's digital diegesis, even if it requires a dramatic reframing of our engagement with cinema characters as transmedia avatars. Certainly the user-created mods of Hanks's characters following the film's release — and the diversity of online responses they prompted — points towards the hopeful possibilities for this kind of reframing. If, as Waggoner asserts, users cannot help but identify with avatars they have helped create and made decisions through and for, transmedia avatars need to better enable and facilitate creative intervention, even if such interventions are only possible in the context of other media platforms (as will be discussed further in Chapter 5.)

Taking it to the next level: Digital narrative and *The Polar Express*

In positing that our cognitive construction of cinematic narrative typically grounds and rationalizes our affective responses to screen characters, Smith upholds the commonly held belief within cinema studies (espoused most famously by David Bordwell and Kristen Thompson) that Classical Hollywood narration and style can subsume any formal “intensification” to serve its needs.⁸⁰ However, *The Polar Express* suggests that, in the age of media convergence, this may no longer be the case, as cinema's transmedia obligations combine with its digital malleability to force stylistic and narrative intensifications not so readily contained by the classical paradigm. Instead, I would argue that the so-called classical paradigm may be shifting in order to account for these obligations.

⁸⁰ See, for example, Bordwell, *The Way Hollywood Tells It*, Thompson, *Storytelling in the New Hollywood*.

The Polar Express's characters exist in the context of what Warren Buckland has termed a "digital narrative," a hybrid of classical narrative logic and video game logic that attempts to "engage the consumer habits and forms of pleasure specific to the experience of today's young film audience" via its periodic adherence to the rules of the video game, and the serial repetition of these rules until the protagonist has "mastered" the text in question.⁸¹ For Buckland, such digital narratives (the example he uses is that of Luc Besson's sci-fi blockbuster *The Fifth Element* [1997]) encourage an immersive mode of "video" pleasure as the spectator moves vicariously via the protagonist through multiple levels of action, encountering various rewards and punishments that serve as feedback loops while en route to an ultimate destination or goal. It is not my intention to suggest that this type of narrative doesn't bear any resemblance to the protagonist-centred, cause and effect-driven narratives of traditional children's entertainment; it is, after all, a hybrid of classical and "digital" storytelling structures. But I would like to suggest that the combined impact of the film's unique visual grammar, the extensive extratextual details of its production process, and its distinctive mobilization of video game logic and pacing all function to place it decidedly in excess of classical cinematic narrative. Furthermore, if the primary aim of the digital narrative is to target the consumption habits and pleasures of young viewers, these habits and pleasures are now far less likely defined by the adventures of *Bambi*, *Dumbo*, and the like

⁸¹ Warren Buckland, "Video Pleasure and Narrative Cinema: Luc Besson's *The Fifth Element* and Video Game Logic," in *Moving Images: From Edison to the Webcam*, eds. J. Fullerton and A.S. Widdick (Sydney: John Libbey, 2000), 159-160.

than they are by the narrative logic and structure of the video game. As Wolf asserts, since contemporary video game narratives have long since moved beyond simple tests of hand-eye co-ordination or puzzle-solving skill to draw on select principles of cause-and-effect-driven cinematic narrative, players have become decidedly more vested in their outcome.⁸²

The Polar Express begins conventionally enough: on Christmas Eve, in a tranquil, snow-covered suburban neighbourhood, a young boy lies tucked in his bed, gazing fretfully at the ceiling as, in voice over, his adult self (Tom Hanks) recalls that “I was listening for a sound I feared I would never hear: The ringing bells of Santa’s sleigh.” With exceptional economy (due, in part, to its initial adherence to the storyline of the children’s book on which it is based), the film thus establishes the classical narrative motivation of a child’s journey towards restoring his shaken beliefs and lost innocence. However, from the moment our unnamed Hero Boy steps foot out of bed to begin investigating his house for any sign of Santa’s comings or goings, the hybridity of this particular digital narrative becomes apparent. As he alternately tip-toes, runs, and snoops his way through various pieces of evidence — untouched cookies on the plate, a looming shadow in the hall that proves only to be his father piggy-backing his little sister, a file full of clippings he has gathered that suggest Santa may be a hoax — our protagonist also faces a series of small obstacles and challenges that provide the necessary feedback loops to further motivate and provide intrigue to his quest. For example, a hot burst of steam on his arm from the radiator prompts him to

⁸² Mark Wolf, *The Medium of the Video Game* (Austin: University of Texas Press), 101.

step away from his vigil at the bedroom window and begin exploring; stepping with a clang onto a toy metal hubcap in the centre of his room reminds him to proceed slowly and cautiously; the discovery of his father and sister prompts a quick getaway; peering through the keyhole in his sister's door allows him to overhear her expressing doubts about Santa, which further fuel his own and motivate his return to his room to scrutinize and consider all the clues he has gathered thus far.

When *The Polar Express* pulls up outside his window and the jovial conductor (Hanks again) implores him to hop on, it signifies his movement onto the next level of narrative "play." Having passed the "home" level in his quest for the truth about Santa, he now progresses to the "train" level, which will essentially allow him to repeat the action of searching (recruiting other characters/players along the way) on an intensified, faster-moving playing field. The acceleration of game/narrative play reinforces the "digitality" of this particular narrative: while classical storytelling tends to demand the steady elaboration and elongation of action sequences as the film's narrative progresses, *The Polar Express* adheres to the video game logic that dictates narrative advancement and progression is delineated by the player's ability to master ascending levels of play in shorter and shorter periods of time. Thus, our protagonist's quest across the treacherous, icy roof of the train to help a fellow passenger plays out more rapidly and kinetically than the previous sequence, bringing him face to face with a mysterious hobo who questions his lack of faith and provides him with valuable clues to successfully negotiating his way around

The Polar Express. The pair ski wildly along the top of the train until the Hero Boy dives, just in time, into a coal car at the front of the train. There he is rewarded with the discovery of Hero Girl, safe and sound in the engine room. And so it continues, from scene to scene, “level” to “level,” with the serialized repetition of actions met with various punishments and rewards until the ultimate reward of Hero Boy’s encounter with Santa, and his recovery of the ability to believe and once again hear the bells on Santa’s sleigh.

Like Hero Boy, Hero Girl is sketched in minimal psychological detail save her motivation for getting in the game: Her desire to lead, and be trusted and respected by others, which she eventually achieves during their search of the North Pole. Her ability to hear and follow the sounds of the sleigh bells that Hero Boy cannot due to his skepticism designates her as lead player for this particular scene/level. Her authority is reinforced by her move to the centre of the various feedback loops that dictate what course they will follow; for example, she is the first to step out onto narrow, slippery train tracks that run across a seemingly endless chasm below in order to follow the sound of the bells, and the first to advance successfully to solid ground. Furthermore, her leadership through the winding streets of the North Pole is ultimately rewarded by their discovery of the elves’ workshop and the conveyor belt of presents that will ultimately help deliver them back to the town square. This move towards narrative centrality is also accompanied by a brief shift in alignment so that Hero Girl’s subjective gaze is that with which we are most frequently aligned, a realignment that implies the multiple subject positions possible for spectator-consumers as a possibility within

the context of a digital narrative. Once the children are delivered back to the town square via airlift in a giant bag of presents, Hero Boy resumes his role as protagonist/lead avatar, a role he maintains for the remainder of the narrative.

Of course, the discernable presence of video game logic in the film's narrative is perhaps most clearly reinforced by the content and structure of its incarnation as a video game, which emulates the different "levels" of narrative play with identical "levels" of game play:

All aboard *The Polar Express* video game, a magical train on a journey to the North Pole. Meet memorable characters from the film as you dash across train tops, ride runaway rail cars, and climb through stacks of presents Get ready for a journey like you never imagined.⁸³

In the context of the film these "levels" are periodically interspersed with episodes of more classical narrative development (including the inclusion of a rather underdeveloped relationship with Lonely Boy, the token waif from the wrong side of the tracks) and pure show-stopping spectacle (especially the somewhat incongruous musical numbers, including the frenetic Hot Chocolate song and dance sequence). As a result, the challenge facing a digital narrative that tries to combine the nostalgic warmth of a children's story and the goal-oriented quest narrative of a video game becomes increasingly apparent. In *The Polar Express*, the game, you can push a button to skip over such narrative interludes — with the film, one would have to purchase it on DVD in order to practice such mastery. Thus, although the type of hybrid "digital narrative" Buckland identifies in a science fiction film such as *The Fifth Element* may

⁸³ From a TV spot for *The Polar Express* video game, accessed April 12, 2005, <http://www.thepolarexpressmovie.com> (URL no longer active).

provide a relatively seamless mode of immersive “video pleasure” for the viewer, the different narrative strands of *The Polar Express* do not fuse nearly so seamlessly.

As Wolf points out, the rules and cause-and-effect logic that drive video game narratives are imbedded with a worldview that matches actions to consequences and determines outcomes.⁸⁴ In the sections of *The Polar Express* adhering to video game logic, this worldview is one that rewards daring and often dangerous exploration, careful and critical scrutiny of one’s surroundings, and a cynical disbelief in anything that hasn’t been proven via the gathering of appropriate evidence; this investigative focus articulates the type of broader cultural ambivalence and indeterminacy Scott Bukatman notes with respect to cyberspace and virtual environments.⁸⁵ This contrasts sharply with those sections adhering more closely to classical narrative logic and the worldview of the original children’s story, which idealizes a more antiquated, naïve conception of youth as inherently innocent. According to the former, belief is an end-goal that must be actively sought out and captured, while according to the latter, it is a simple, child-like quality that must be protected and preserved. Played out in a digital diegesis that is highly unlikely to solicit naïve viewer belief in the wonder of the images being presented, I would argue that the former is privileged rather unevenly over the latter.

To conclude this study of the digital human for how it articulates what it means to be human, both onscreen and off, within our increasingly converged

⁸⁴ Wolf, *The Medium of the Video Game*, 109.

⁸⁵ Bukatman, *Matters of Gravity*, 13-31.

digital media landscape, I consider the digital human as transmedia “convergence character.” Using *Beowulf*, Zemeckis’s 2007 performance capture follow-up to *The Polar Express*, as my primary case study, I examine what is at stake when “avatar films” become “avatar franchises” that seek to extend the control of the digital human to the spectator-consumer through a range of ancillary media. These properties tend to put forth a problematic model of franchise “immersion,” pre-supposing our status as consumers so engulfed in a franchise’s transmedia intentions that we can transition between different media forms and iterations of a digital human character with relative ease, without acknowledging their necessarily-disparate requirements for identification and engagement.

Chapter Five

Playing with (and as) the digital human as convergence character

This chapter investigates what is at stake when digital humans become convergence characters, figures compelled by the synergistic imperatives and overlapping industrial and technological practices of their conglomerate owners to anchor media franchises, forced to take up starring roles in films, games, and other ancillary media designed to expand the franchise storyworld and extend its revenues. I examine how convergence characters have supplanted the prevailing “science fictional” narrative of flawless digital synthespians replacing human actors with an equally powerful narrative wherein digital characters extend human agency within and across media platforms, turning “avatar films” into “avatar franchises.” Fueled by the insistence of media producers that the technological convergence of cinema and games has enabled seamless cross-media character translation, this latter narrative elides the mixed reception of transmedia characters, discussed at length herein through the case study of the *Beowulf* franchise as well as several other salient examples.

This chapter problematizes the master narrative of technological convergence as the key to successfully converged content, further developing the previous chapter’s argument that human characters remain one area wherein the distinctions among media forms are still keenly felt. I begin with a closer examination of early movie-licensed video game characters that demonstrates how their necessary abstraction due to the technical limitations of gaming

consoles at the time may have helped ease certain challenges of cross-media character identification. I propose that abstraction helps movie-licensed game characters bear the hefty baggage of being avatars twice over: that of their cinematic selves, and that of the player operating them. In examining these earlier forays into movie-game convergence, I hope to further contextualize my analysis of the digital human, at the same time as I problematize some of the more hyperbolic narratives surrounding digitization as the key to creating successful transmedia characters.

Seamless transitions?

In the weeks prior to its release in November, 2007, director Robert Zemeckis enthused that his computer-generated blockbuster *Beowulf* and its digital cast (derived from the voice and motion-captured performances of Anthony Hopkins, Angelina Jolie, Ray Winstone and John Malkovich) were particularly well-suited for adaptation into video game format. “Not only does the film have a compelling story and strong visual style that will translate well into a game,” he suggested. “But because the film is entirely digital, we are able to share our assets with (game developer) Ubisoft. *Audiences will be able to make a seamless transition between the film and the game.*”¹

Zemeckis celebrated the supposedly “seamless” transitions consumers could now make between the once-disparate media forms of cinema and

¹ Alexis Dunham, “Ubisoft announces *Beowulf*,” *IGN.com*, May 24, 2007, <http://m.ign.com/articles/791700>. Emphasis mine.

interactive digital games. In so doing, he echoed a prevailing theme within both industrial and academic discussions of convergence, which emphasizes how the ephemerality of digital media content enables the cross-media flow of intellectual property, as well as the mastery and creative intervention of its consumer-operators. In the most idealistic form of this discourse, it no longer matters from which medium an intellectual property (IP) originates, only that its characters, settings, and storylines translate easily from one to the other according to the synergistic logic of a given franchise. While Zemeckis boasted that the status of his characters as digital “assets” made them readily translatable into video game characters, the promotional build-ups surrounding most video games licensed from movies boast of next-generation graphics that allowed the creation of digital avatars which all but duplicate the photorealistic appearance and behavior of their cinematic counterparts. For example, according to its press release, the game *Iron Man 2* (Sega, 2010, Figs. 1 and 2) featured “a cast of characters that transports fans into a deeper and more authentic cinematic video game experience” through their close resemblance to their big-screen selves.²



Fig. 1: *Iron Man 2*, the game



Fig. 2: *Iron Man 2*, the film

² “Iron Man 2: The Video Game Blasts into Stores Everywhere,” *IGN.com*, May 4, 2010, <http://xbox360.ign.com/articles/108/1087612p1.html>.

Prospective gamers were informed that high-resolution, digital scans and the motion-captured movements of the cast of the *Matrix* trilogy ensured the highest degree of continuity between the films and video games.³ Meanwhile, EA's website for *Harry Potter and the Deathly Hallows Pt. 1* (BrightLight, 2010) claimed that advances in facial animation software granted its game characters a new range of emotive expressions, all of which "add to the highly realistic and cinematic feel of the new game. It also creates a much more engaging story that will take you to darker places than ever before."⁴ According to such accounts, the boundaries between media forms and the human characters that populate them are rapidly disappearing, allowing consumers to enjoy the franchise in question as a seamless, immersive experience.

For all the promotional bluster about the new ease of character transmediation in the digital age, the reception of the cross-media human character has been decidedly mixed. This chapter will consider how the successful reception of the transmedia character never has been simply a matter of erasing the boundaries between the media forms they occupy. A closer examination of early movie-licensed video game characters demonstrates that *technological* convergence — evident in the shared digital imaging processes that strive to remove the aesthetic distinctions between film and game characters — may not be the ultimate determinant of successful converged *content*. As

³ See, for example, John Gaudiosi, "Hacking the Matrix: An Exclusive Look at the Technology Behind the Game," *Wired.com*, March 2003, accessed May 3, 2010, <http://www.wired.com/wired/archive/11.03/play.html>.

⁴ "Latest News: Characters," accessed June 6, 2012, <http://harrypotter.ea.com/?cat=84>.

we'll see, the necessary abstraction of early video game characters helped ease their obligations as “doubled” avatars. Freed from the expectation that they could provide photorealistic doubles of their cinematic selves, early movie-licensed game characters instead could provide functional stand-ins for their player operator. This consideration of early efforts in character convergence will challenge the prevailing industrial narrative of digitization as the key to seamless character transmediation.

I consider one such hyperbolic narrative, the *Beowulf* franchise, and its diegetic and extratextual attempts to reposition the digital human as the ultimate convergence character. Mobilizing the same promotional discourses of bodily transcendence for its human star as *The Polar Express*, *Beowulf* grants leading man status to English character actor Ray Winstone, who assumes the film's title role. But *Beowulf* doesn't just construct the digital human as a multifaceted avatar and super-empowered “other” for the human actor. The franchise also strives to do the same for the spectator-consumer, provided said consumer is willing to take the transmedia bait and assume control of one of the franchise's multiple interactive characters. In this sense, *Beowulf* continues and amplifies the “immersive” franchise strategy begun in *The Polar Express*, but with a greater emphasis on true “transmedia” storytelling, rather than simply spinning its central character into a repetitive video game license. Each text — and each version of *Beowulf* — seemed poised to make a unique contribution to the *Beowulf* storyworld. However, the franchise's insistent blurring of the distinctions between these characters and their digital worlds may have

ultimately contributed to a problematic series of redundancies and excesses.

Trevor Elkington argues that the term “media convergence” somewhat problematically suggests that all media are moving towards a common ground where formerly disparate narrative and design demands begin to merge and all texts begin to behave similarly. As Elkington suggests, this assumption overlooks remaining divergences between games and cinema, particularly in the realm of character construction and reception, at its own risk.⁵

Contextualizing the Transmedia Character: Abstraction, Identification, and Early Movie-licensed Games

Obviously, there are strong economic motives behind promoting the dialogue of cinematic and interactive characters, as well as the supposedly effortless transitions consumers can make between them. In a media landscape where horizontally integrated companies hold interests across a range of once-distinct industries, the longer that a given intellectual property can stay in the public eye, and draw on the public wallet, the better. Less frequently are video game characters being viewed by media producers as cheap, ancillary spin-offs of their big screen counterparts. Instead, they’ve become one of the most crucial fictional elements in the broader media ecology of transmedia storytelling, which disperses a franchise storyline across multiple delivery channels, with the aim of each medium adding its own, unique contribution to immersive, multi-

⁵ Trevor Elkington, “Too Many Cooks: Media Convergence and Self-Defeating Adaptations,” in *The Video Game Theory Reader 2*, eds. Bernard Perron and Mark J.P. Wolf (New York; London: Routledge, 2009), 232.

media storyworlds.⁶ As Jonathan Gray asserts, the prevailing logic of our contemporary media landscape no longer strictly places film at the centre of the textual interaction while relegating ancillary media to the role of “nuisances cluttering streets, screen time, cyberspace, and shopping malls . . . tacked on to the film or program in a cynical attempt to squeeze yet more money out of a successful product.”⁷ Instead, as Gray suggests, these “peripherals are often anything but peripheral . . . often playing a constitutive role in the production, development, and expansion of the text.”⁸ While the film may remain the precondition for these transmedia expansions, it can no longer be viewed as doing its work alone, nor is it solely responsible for all of a franchise’s popular meanings. A successful film character licensed for use in the context of a video game spin-off has the potential to extend the popularity of a franchise well beyond the box office, even functioning to keep brand awareness piqued in-between cinematic installations. Jenkins asserts that the synergistic nature of transmedia storytelling makes it an ideal means of organizing a franchise in the age of media convergence. Transmediation allows media conglomerates to maximize revenues across a range of separate but related products, while holding out the promise of a satisfactory experience for the consumer, who ideally consumes all strands of the franchise.⁹ In this context, characters are

⁶ Jenkins, *Convergence Culture*, 93-130.

⁷ Jonathan Gray, *Show Sold Separately: Promos, Spoilers, and Other Media Paratexts* (New York and London: New York University Press, 2010), 175.

⁸ Gray, *Show Sold Separately*, 175.

⁹ Jenkins, *Convergence Culture*, 93-130.

increasingly being treated as intellectual property to be translated — and marketed — across multiple media platforms.

To some extent, characters that move across media aren't a new phenomenon, as anyone who's ever played with a Boba Fett action figure or followed Spider Man from the pages of a Marvel comic to the big screen and back again will attest. For example, while film-licensed action figures and toys may not occupy their own, franchise-sanctioned narrative space, these supposedly "peripheral" bits of ancillary merchandise can still function to powerfully affirm and expand the franchise storyworld through the imaginative play of their users. Richard deCordova observes that, thanks to the positive, educational association between children's play and toys at the time, the voluminous Mickey Mouse merchandise Disney released in the 1930s (including a wide range of toys, dolls, costumes and comics) was crucial to convincing concerned parents that their children should also consume Disney's animated films.¹⁰ Gray, meanwhile, contends that the original Kenner *Star Wars* action figures allowed fans to personalize and intensify the franchise's central themes at the same time as they permitted them to become active participants in filling

¹⁰ Richard deCordova, "The Mickey in Macy's Window," in *Disney Discourse: Producing the Magic Kingdom*, ed. Eric Smoodin (London: Routledge, 1994), 210-211. For example, deCordova notes, "In 1934, Mickey Mouse doll houses, playhouses, pencil sets, paint sets, dial phones and chime sets were put forward as evidence that Mickey had turned educator. In fact, not all of these toys are obviously educational. But, according to the rhetoric of the day, toys were generally educational. For this reason, the toys offered more solid ground on which to assure the sacredness of Mickey Mouse's address to children than did the films."

in the narrative gaps between cinematic texts through their game play. In the *Star Wars* universe, Gray argues,

[t]he toys...have never merely been “secondary” spin-offs or coincidental: they have played a vital role in, and thus have become a vital *part of*, the primary text and its unrivalled success. Each movie brought to head years of play, and characters with long toy histories.¹¹

Interactive digital characters hold out the promise of functioning as “next generation” agents of franchise affirmation and expansion, situated as they are within navigable digital storyworlds that permit players to explore the gaps and spaces just off-screen in their cinematic source material. These franchise-sanctioned storyworlds strive (not always successfully) to facilitate the user’s imaginative play through their provision of additional narrative content to “flesh out” a given transmedia universe. As movie-licensed game characters come increasingly to resemble their cinematic counterparts (in some cases due to such overlapping technical processes of motion-capture, digital texture mapping, and shared vocal performances), these figures also hold out the promise that technological convergence will inevitably result in successfully converged content, eliminating any residual barriers to translating characters across media.

Media history suggests otherwise. By taking a closer look at early movie-licensed games and their characters, one can better understand the pervasive convergence between cinema and video games that has come to define the contemporary moment, as well as the current status of the digital human. If, as Jenkins argues, successful transmediation allows each medium to do what it

¹¹ Gray, *Show Sold Separately*, 183.

does best, these early game characters may have been allowed to do what they do best by virtue of their necessary *difference* from — rather than their strict resemblance to — their cinematic counterparts due to their necessarily abstract approach to representation.

Early Adventures in Movie-Game Convergence

While the term “convergence” has been mobilized as a uniquely twenty-first-century trope, strongly linked to widespread digitization as the technological driver enabling content to “flow” readily across media platforms,¹² the convergence of cinema and video games actually dates back to the ostensibly “pre-digital” era prior to the 1983 video game industry crash. The type of converged, horizontally integrated ownership structures now prevalent in our current age of media conglomeration had their precursor in Warner Communications’ acquisition of Atari in 1976, a move calculated to cash in on the financial success of the emerging medium at the same time as it provided the would-be media conglomerate with a means to expand its most successful film franchises across other media platforms. For example, the first film-licensed game for the Atari VCS, *Superman* (Atari, 1979), was created when Warner wanted to follow their film *Superman* (Richard Donner, 1978) with a prompt video game tie-in. While its middling success was partly responsible for the

¹² See, for example, Barry Ip, “Technological, Content, and Market Convergence in the Games Industry. *Games and Culture*, 3 (2), 99-224; Tanja Storsul and Dagny Stuedahl, eds, *Ambivalence Towards Convergence: Digitalization and Media Change* (Göteborg: Nordicom, 2007).

relative dearth of movie-licensed titles until 1981, by the early 1980s, video game companies began to turn eagerly to licensing.¹³

Game developers looking to carve out space in an increasingly crowded market became keen to tie their games to established and heavily promoted intellectual property like big-budget Hollywood blockbusters. At the same time, the rapid growth of the video game industry caught Hollywood's attention, when Universal, 20th Century Fox, Disney, Lucasfilm, and Paramount forayed into game development and licensing. Video games, in turn, affected film content, fueling the storylines and computer-generated aesthetics of such high-profile releases as Disney's *TRON* (Steven Lisberger, 1982), MGM's *WarGames* (John Badham, 1983), and Universal's *The Last Starfighter* (Nick Castle, 1984). Judd Ethan Ruggill points to this early period of cross-pollination between cinema and games, followed by its distinct lapse into period of dormancy following the video game industry crash of 1983, as an example of how, "while the process of convergence often seems smooth, even inexorable, it tends to be 'glacial' instead — irregular, with (often simultaneous) surges and retreats."¹⁴

This early "surge" towards film-game convergence was articulated by special-interest video game magazines and promotional publications. *Atari Age*, a Warner Communications-owned magazine created for Atari Club members, was at the forefront of promoting this newly converged media content. Despite debuting on store shelves several years earlier, the *Man of Steel* occupied a place

¹³ Nick Montfort and Ian Bogost, *Racing the Beam: The Atari Video Computer System* (Cambridge; London: The MIT Press, 2009), 124.

¹⁴ Judd Ethan Ruggill, "Convergence, Always Already, Already," *Cinema Journal* Vol. 48, No. 3 (2009): 106.

of honor on the top left-hand corner of *Atari Age*'s first cover in May 1982, while the wizened hand of E. T. from *E.T.: The Extraterrestrial* (1982) stretched across the cover of the November/December 1982 issue (Fig. 3) to alight its magic touch upon the tip of an Atari VCS joystick, underlined by a movie-ticket-shaped banner that heralded the release of "Two New Movie Games! E.T. and Raiders of the Lost Ark."

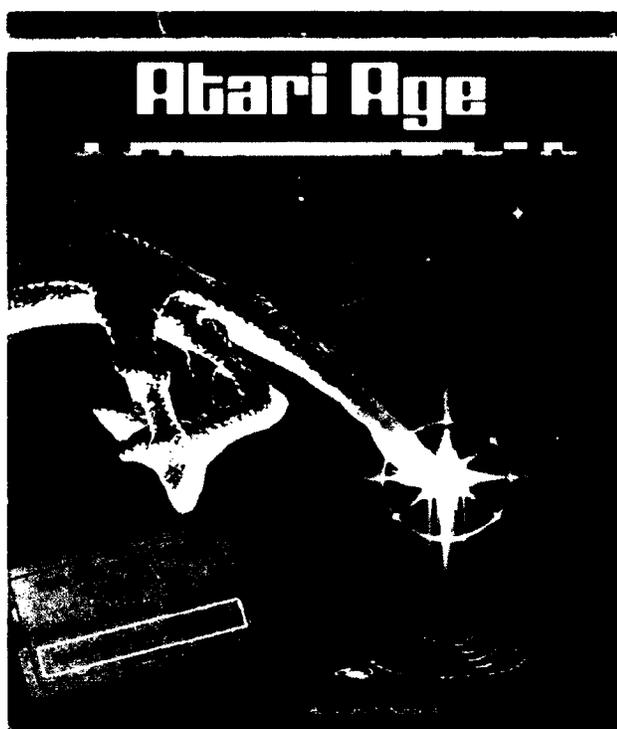


Fig. 3

This focus on the crossover between film and games was not limited to those publications with a clear promotional mandate. For example, *Videogaming Illustrated* twice put Bruce Boxleitner's title character from *TRON* on its cover, first with a film still on the cover of the August, 1982 issue to accompany a feature about the film ("TRON: Life Inside a Videogame!" [Fig. 4]).

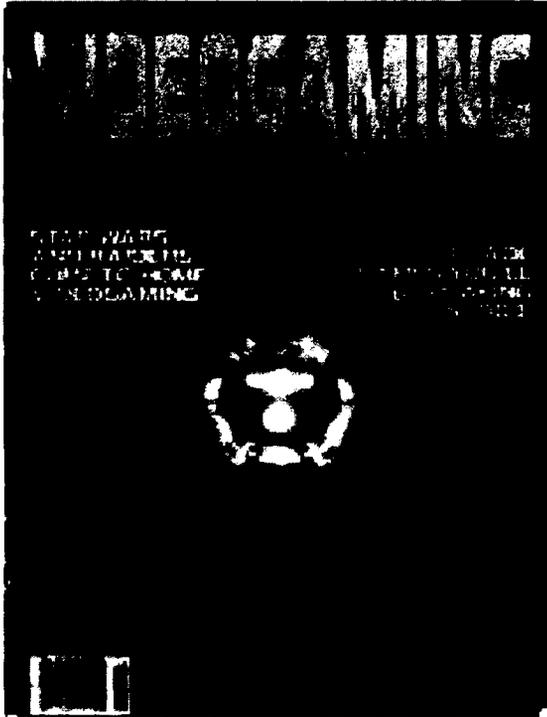


Fig. 4

The second was an artist's rendering of Tron on the cover of the April, 1983 issue to tout the strategy guide to beating the Intellivision game *TRON: Deadly Discs* (1982), one of several home and arcade games based on sequences from the Disney feature. Both the recurring "Eye On" section of *Videogaming Illustrated* and *Atari Age*'s "Sneak Peeks" charted the hefty list of upcoming movie, television, and comic book licensed releases ("Good grief! Charlie Brown is coming to Atari!"), while *Videogaming Illustrated*'s monthly column "Star Words" featured such film stars as Kirk Douglas and Charlton Heston sharing their thoughts on the subject of video games.

Abstraction and the Doubled Avatar

Forced to strike a delicate balance between serving as a stand-in for the player within gamespace, at the same time as they must bear the visual and narrative associations demanded by their medium of origin, movie-licensed video game characters are avatars twice over: that of their operator, and that of their film character. I want to suggest that these early movie-game characters may have succeeded because they were typically forced to prioritize the former over the latter. Wolf suggests that all art and media, video games included, can be interpreted in terms of where they fall on the spectrum between two extremes, abstraction and representation:

To *abstract* something is to simplify it, reducing it to a few essential basic forms instead of trying to reproduce it. *Representation*, which seeks to create resemblances and reproduce something, is the polar opposite of abstraction (and is sometimes conflated with *realism*). Most artwork falls in the spectrum between the two extremes, since even very representational art falls short of fully reproducing its subject.¹⁵

Abstraction was a necessary strategy in early video games, since, as Wolf points out, “the video game began with perhaps the harshest restrictions encountered by any nascent visual medium in regard to graphic representation.”¹⁶ While the technologically imposed need for a high level of character abstraction limited developers’ choices in creating appropriately cinematic player-characters, it may have also freed early movie-game tie-ins from some of the challenges associated

¹⁵ Mark J.P. Wolf, “Abstraction in the Video Game,” in *The Video Game Theory Reader*, eds. Bernard Perron and Mark J.P. Wolf (New York; London: Routledge, 2003), 48. Italics in original.

¹⁶ Wolf, “Abstraction in the Video Game,” 47.

with translating more “representational” characters into the realm of the video game.

Building on Scott McCloud’s assertion that cartoon characters function as a kind of vacuum into which our identities can be pulled —“an empty shell that we inhabit which enables us to travel to another realm,”¹⁷ in McCloud’s words — Wolf suggests that game characters which fall closer to the “abstraction” end of the spectrum may perform a similar function for their users. Abstract characters, Wolf argues, create a necessary gap between in-game character image and realist representation for players to inhabit their character.¹⁸

Abstraction can therefore become something that aids identification, rather than a source of player alienation. By this logic, the marked gaps between early movie-game characters and their cinematic source material in terms of both appearance and behavior may have ultimately been crucial to naturalizing the player’s engagement with them.

Well-known, iconographic characters that could be readily translated from film to game were crucial to this early period of movie-game convergence, since, in theory at least, these figures were typically the easiest way to tap into pre-existing brand awareness and set new titles apart in a marketplace on the brink of being saturated by the releases of third-party developers.¹⁹ This

¹⁷ Scott McCloud, *Understanding Comics* (New York: Harper Collins, 1993), 36.

¹⁸ Wolf, “Abstraction in the Video Game,” 51.

¹⁹ Although video game industry pundits tend to pin the 1983 industry crash on the failure of a single movie-licensed game – the spectacular flop that was Howard Scott Warshaw’s *ET: The Extra-Terrestrial* (Atari VCS, 1983) – to pin the crash on one single factor — let alone the failure of a single game — is as

character-driven motivation for game licensing was typified by toy and game maker Parker Brothers's foray into video games in the early 1980s, drawing on the well-known heroes of such prominent licenses as James Bond, Spider-Man, and Jaws, to name a few. As the industry-focused "Eye On" section of *Videogaming Illustrated* observed at the time,

[R]ecognizing they were wading into heavily populated waters, Parker Bros. decided that going with "famous faces" was the best way to go. "Licensing is a factor which sets you apart to begin with," (Parker Bros. Director of Marketing Richard) Stearns notes. "It gets you recognition in the consumer's mind, and if you can back that edge with very good gameplay, you're on your way."²⁰

Similarly, the announcement of Lucasfilm's planned collaboration with Atari promised that the filmmakers' "unforgettable characters" would make the transition from movie to video game screen, touting these figures as just as

reductive as it is inaccurate. An excessive focus on licensing existing properties (including film, television, and arcade games) instead of developing original intellectual property was but one precipitating factor in the Crash, which was also preceded by market saturation with cheap, uninspiring console games from third-party developers, a steep decline in arcade revenues, and a rise in home computer and computer game use. See, for example, Montfort and Bogost, *Racing the Beam*; Mark J.P. Wolf, "The Video Game Industry Crash," in *The Video Game Explosion: A History From PONG to Playstation and Beyond*, ed. Mark J.P. Wolf (Westport, Connecticut; London: Greenwood Press, 2008), 103-106.

²⁰ "The Force is With Them," *Videogaming Illustrated* (August 1982), 10. In the same interview, Stearns also acknowledged how Parker Bros.'s corporate ownership was ideally structured to maximize the cross-media potential of licensed characters: "Licensors are always thrilled to do business with a company owned by General Mills, especially with the potential for cross-promotion on back of cereal boxes."

crucial to an authentic adaptation of film to game as setting, visual effects, and visceral action sequences.²¹

In sharp contrast to the derision heaped upon most contemporary licensed video game characters, these early licensed characters tended to be both highly anticipated and, for the most part, well-received: “Licensed characters seem to bring out the best in game designers. Doubtless they are “inspired” by having their licensors looking over their shoulders, making sure the game is faithful to the character in question.”²² Part of this favourable reception can be attributed to different contemporaneous expectations of what constituted a faithful character adaptation, and indeed, what even constituted a believable game character. As Wolf observes, video games of this era faced such substantial obstacles to convincingly representing the player in the game world that the earliest player characters tended to either be implied (a camera-controlling presence off-screen) or function-based (items such as spaceships, tanks, guns or gun turrets), thus circumventing the challenges of depicting the more detailed shapes and articulated movements of human or anthropomorphic characters.²³ Bob Rehak

²¹ “Where do you look for dramatic new video game ideas? If you’re Atari you turn to the top creative teams in filmmaking . . . and form partnerships to develop tomorrow’s breakthrough video game concepts. Lucasfilm, Ltd. is the producer of the Star Wars series and the incomparable Raiders of the Lost Ark — films combining fantastic action sequences, unforgettable characters, and spectacular visual effects. *Now the same kind of thrilling action, character, and visual effects* will be combined in home video, coin video and home computer games produced by the Lucasfilm creative team in cooperation with Atari’s experienced game programmers.” Emphasis mine. “Creators of Raiders and Sesame Street to Design New Atari Video Games,” *Atari Age*, Vol. 1, No. 3 (September/October 1982), 7.

²² “Conquering Spider-man”, *Videogaming Illustrated*, (April 1983), 30.

²³ Wolf, “Abstraction in the Video Game,” 50-51.

notes of these early, function-based avatars that the controlling human agent is always implied, if not depicted: “Suggestive of a human ensconced within a mechanical shell, the rocket-ship imagery of the first avatars harkened to the external reality of the player seated at the terminal, hands on the controls.”²⁴ The possible actions and behaviors of these function-based characters were ideally matched to limited inputs afforded their user, whose button-tapping and joystick-twirling yielded a pleasing correspondence of shooting and swiveling from their on-screen stand-in.

Alongside the rise of licensing in the early 1980s, character-based player surrogates — the first to possess an identity separate from that of the player controlling them — became increasingly common, in part due to their apparent potential for heightening player engagement. However, unlike the first named characters *not* licensed from another medium (Pac-Man and his ghost-monster enemies, for example) licensed character-based player surrogates were still constrained by the representational limitations of game hardware and software. For example, Parker Bros.’s marketing manager Bill Bracy recalls being presented with a convincing rendering of Darth Vader’s mask during the development of *The Empire Strikes Back* (1982) for the Atari VCS, only to be told by the game’s programmer that, due to the platform’s limited memory, the character was nothing more than a pretty face: “When I asked him what we can do with it, his response was: nothing! I’ve used up all the space.”²⁵

²⁴ Bob Rehak, “Playing at Being,” 109.

²⁵ Quoted in Montfort and Bogost, *Racing the Beam*, 120.

Montfort and Bogost point out that, in the end, none of the Parker Bros. *Star Wars* games featured a detailed close-up of a character face or mask. *Jedi Arena* (1983), one of the few to feature identifiably human characters (Luke Skywalker included, or so the game’s packaging would have you believe) depicts them from a top-down, God’s eye perspective, so that they are both faceless and motionless, but for the swinging of their light sabers (see Fig. 5).

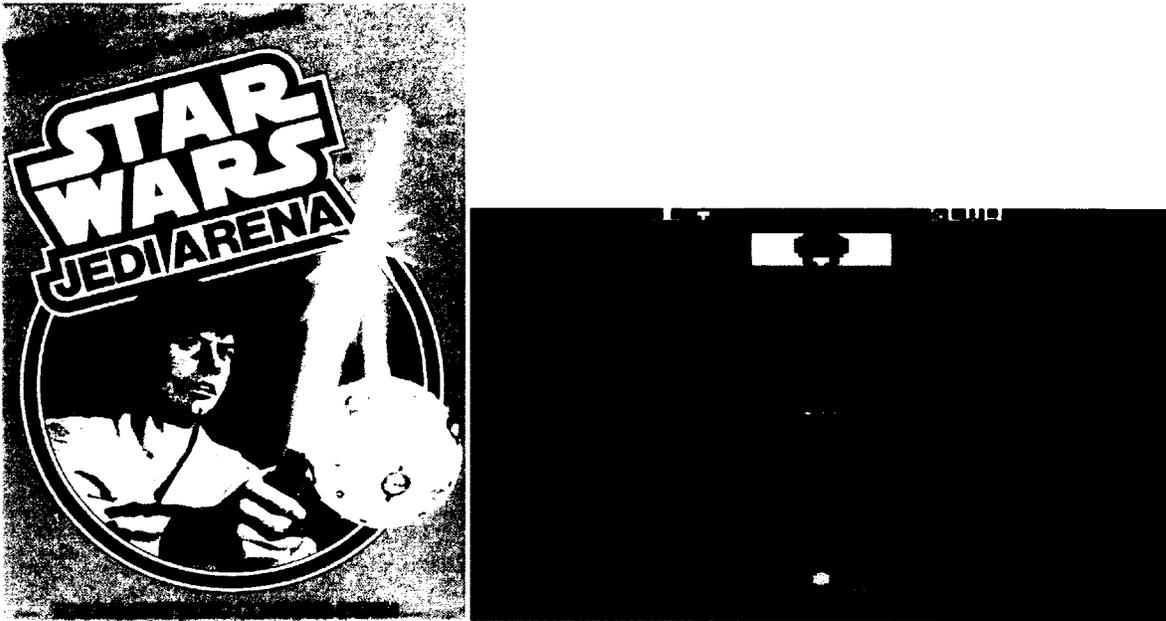


Fig. 5: *Jedi Arena* cartridge packaging vs. actual gameplay

Developers relied instead on a more abstract, function-based approach that took advantage of “the unique technologies and situations of the *Star Wars* universe.”²⁶ Most famously, the snowspeeder sequence from *The Empire Strikes Back* (Irvin Kershner, 1980) became the foundation for the game of the same name (Parker Bros., 1983). Both the original film character and the human player-operator are implied, but not obviously “present,” in this function-based

²⁶ Montfort and Bogost, *Racing the Beam*, 120.

approach to player-character construction, a fact acknowledged in the game's enthusiastic critical and popular reception at the time. In one of the earliest examples of a video game walkthrough, a home video series entitled *How to Beat Home Video Games*, the host describes the successful projective relationship players form with their Snowspeeder:

This translation of the Imperial Walker scene from the film shows that Parker Brothers still has what it takes to please the public. The player, *who can imagine himself or herself to be Luke Skywalker*, pilots a Snowspeeder ship against an army of Imperial walkers, who show up on this radar on the bottom of the screen.²⁷

The simple, function-based avatar of the snowspeeder allowed users to *imagine* themselves as Luke Skywalker, and perhaps more importantly, it allowed them to successfully project themselves into gamespace through clear, decisive action, zipping nimbly back and forth across a sparse, 2D version of the ice planet Hoth to do battle with an endless onslaught of Imperial Walkers (Fig 6).

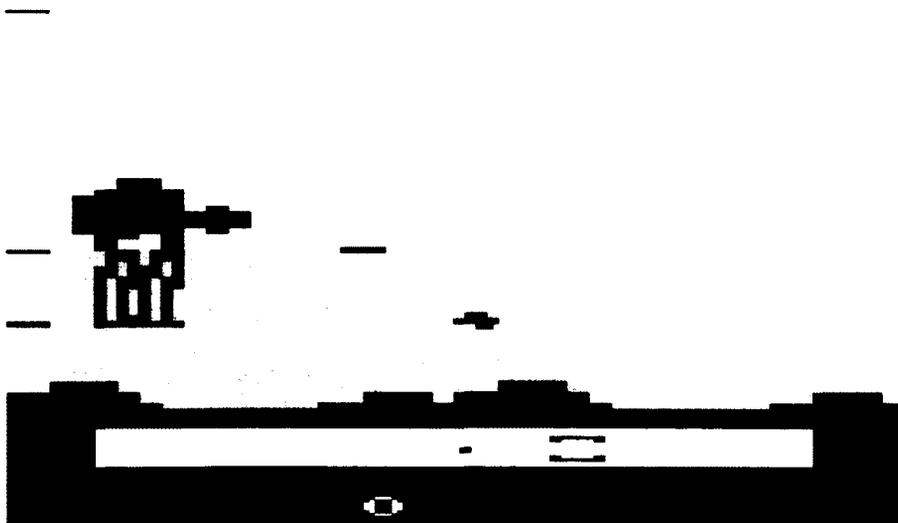


Fig. 6: *The Empire Strikes Back* for Atari VCS

²⁷ "The Empire Strikes Back," *How to Beat Home Videogames: Volume One*, Vestron, 1982. Emphasis mine.

Jesper Juul suggests that, while films require human actants or their approximations for viewers with which to identify in order to become vested in the text, video games require no such actant. Juul argues that it is the player's *activity* and the game's evaluation of and response to that activity, not the player's graphical representation within gamespace, that ultimately guarantees her investment and presence in the game.²⁸ Game characters, Juul contends, can therefore be more abstract because they involve the player in such a direct way, allowing the player to stand in for her human actant-character.²⁹ In the case of *The Empire Strikes Back*, the obvious gap between game avatar and film character Luke Skywalker facilitates player alignment with the in-game character, emphasizing character function and action within gamespace — those factors controlled by the player — over character form and appearance — those traits controlled by the designer, and, to a certain extent, the licensor.³⁰ Character abstraction, necessitated by technical limitations, thus eased the challenge of the

²⁸ Jesper Juul, "Games Telling Stories?" *Game Studies* 1, no. 1 (July 2001), <http://www.gamestudies.org/0101/juul-gts/>.

²⁹ Juul's argument reflects his desire to highlight the differences between narrative and interactive media, a viewpoint that was common within the ludologist camp of game studies at the time. Although the opposition between "ludology" and "narratology" as approaches to game studies has all but disappeared, Juul's assessment of the different relationships audiences have with film and game characters remains highly relevant to any discussion of film-licensed game characters, which bring together the codes and conventions of these still-disparate media.

³⁰ As addressed in Chapter 4, in the context of contemporary Hollywood cinema that remediates the formal and narrative logic of video games, avatar films like *The Polar Express* similarly strive to prioritize character functionality over form. However, rather than opting for abstract characters, *The Polar Express* mobilizes a combination of an immersive, game-like mode of address and extratextual materials that emphasize Hanks's playful yet masterful control of his characters, rather than the interventions of Zemeckis's team of animators.

“doubled” avatarial obligations of the movie-licensed character, since the snowspeeder can stand in for both player and film character without highlighting the constant slippage and realignment of these subject positions demanded by gameplay. In this case, the licensed character, implied through viewer familiarity with the cinematic backstory (Luke pilots the snowspeeder in the film), provides a context for gameplay, rather than functioning in excess of it. In so doing, the game functions as a kind of early transmedia success, translating the kinetic energy of the film sequence to game form without visually reproducing it, and creating an interactive experience that expands the franchise rather than being redundant within it.³¹ In this sense, *The Empire Strikes Back* succeeds where many of the later, more technologically advanced *Star Wars* games that sought to emulate the look and feel of the films (such as *Star Wars Episode One: Racer* (LucasArts, 1999), based on the film’s prolonged pod racing sequence) ultimately failed.

As Rehak observes, the video game avatar provides the gamer a sense of diegetic embodiment and involvement in the game world, making it the locus of player agency and subjectivity. At the same time, Rehak asserts, when that avatar comes to be graphically represented — and thus, visible — within the game world, it also becomes an object for their scrutiny and contemplation.³²

³¹ As Montfort and Bogost point out, the impossibility of winning the game — the player can only hold off the Walkers for longer and longer periods of time, but can never defeat them outright — reinforces the film’s thematic focus on the forces of good struggling to overcome the overwhelming forces of evil, and allows players to experience this struggle through both the possibilities and restrictions of gameplay. See Montfort and Bogost, *Racing the Beam*, 130.

³² Rehak, “Playing at Being,” 111.

The gamer therefore experiences a highly fluid relationship with their avatar, constantly shifting from participant to spectator and back again, and at times, even occupying both roles simultaneously. As I've suggested, game characters licensed from other media further complicate this relationship because they must function as avatars twice over — that of the user, and that of a famous fictional character. The latter brings the substantial baggage of their pre-existing visual and narrative associations into the game world, especially when the character in question is human. We can better understand the excessive potential of cross-media characters, and how abstraction could at least partially mitigate this excess, by examining one of the highest-profile early movie-licensed game to feature a human character: Howard Scott Warshaw's *Raiders of the Lost Ark* (Atari, 1982), based on Steven Spielberg's 1982 blockbuster and released for the Atari VCS in the same year.

Promotional materials for the *Raiders* game demonstrate the need to manage this excess baggage for its avatar-protagonist, the newly interactive Indiana Jones. The game's advertising strives to foreground the active role of the player who would be donning Indy's hat. "*Raiders of the Lost Ark*: STARRING YOU!" proclaims the text above a realistic artist's rendering of Harrison Ford's Indy:

It doesn't matter who you are – when you play Atari's sensational *Raiders of the Lost Ark* cartridge, you're transformed into Indiana Jones, one of the great swashbuckling heroes of all time! . . . You find yourself in Egypt, land of enchantment . . . and treachery. Your mission – to find the fabled lost Ark of the Covenant. There are mysterious clues and dangerous obstacles around every

corner. It's not going to be easy – not even for you, Dr. Jones!³³

By explaining the player's transformation into Jones when he plays the game, and then directly addressing him *as* Jones thereafter, the ad emphasizes the participatory facet of the player-avatar relationship over the established spectatorial relationship with Jones-as-film character. (The game's strategy guide similarly foregrounds user agency as Indy's operator: "Surprises like snakes, thieves and loot lurk around every corner as *you walk Indiana* through all kinds of adventure scenes you remember from the movie," emphasis mine.)³⁴

In contrast to the more richly developed personae of successful film characters, which are staunchly tied to the ostensibly "realistic" representation of the star playing them, successful video game characters are defined first and foremost by their *functionality* within game space. As Juul, James Newman, and others have argued, the player's sense of presence and being "in character" depends primarily on his character's capacity — what it is capable of within the game, and the "suite of characteristics" it provides its operator.³⁵ The abstract appearance and behaviour of Indiana Jones in the context of his game worlds may have ultimately helped subordinate his "otherness" as a film-licensed character. Rather than highlighting the character as an object for aesthetic contemplation, abstraction allowed character capacity (or lack thereof) to come to the foreground. In video games of this era, to be visually "faithful" to a

³³ Print advertisement, *Atari Age*, Vol. 1 No. 4 (November/December 1982), 9.

³⁴ "Raiders of the Lost Ark", *How to Beat Home Video Games: Volume 2*, Vestron, 1982.

³⁵ Newman, *Videogames*, 134.

character licensed from an ostensibly “realistic” medium such as cinema was simply to ensure that, in terms of appearance, the character in question possessed at least one trait recognizable from its medium of origin. Similarly, character behaviour depicted from a removed, top-down or side-scrolling perspective necessarily relied on the most obvious movements and gestures to evoke familiarity. The most basic iconography of character thus became key to player recognition, boiled down to one or two essential traits that could be ported across media: Indiana Jones’s hat, defiant arms-akimbo stance and undulating bullwhip; E.T.’s telescopic neck and unexpected speed; or The Man of Steel’s billowing cape. (Fig. 7).

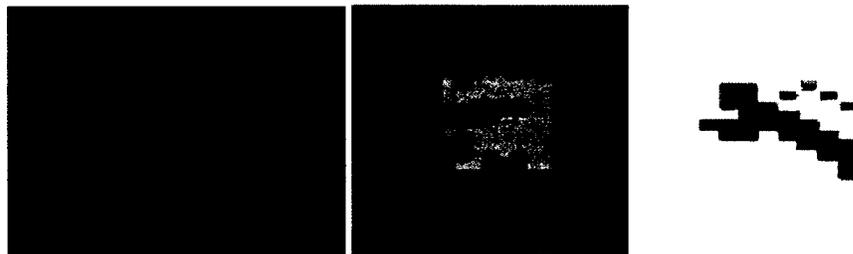


Fig. 7: Indiana Jones, E.T. and Superman as Atari VCS characters

With character appearance linked clearly to character capacity, the avatar’s function, not form, becomes key to guaranteeing player involvement. In the lead-up to its release, the developers of *Raiders of the Lost Ark* shared their secret to “faithfully” adapting Indiana Jones into a video game character. Rather than creating a convincing Harrison Ford clone for players to admire, game developers sought to create a character that functions convincingly — for example, by finding an authentic bullwhip on which to base the in-game movement of Indy’s weapon of choice. The game’s promotional materials further emphasize this functionality:

You have everything Indiana Jones had in the movie — your trusty whip and revolver, your uncanny strategy and cunning — plus several magical objects which provide mysterious powers, if you can find them. And you’ll need all the help you can get, between the thieves and the giant spider and the deadly snakes³⁶

The positive critical and popular reception of *Raiders of the Lost Ark* suggests that the game succeeded in creating a “functional” film-licensed character for players to identify with and operate in the game world, which was deemed both complementary to and suitably different from its cinematic source material.

In the decades since, the history of the video game character has instead been defined by an inexorable march from abstraction to representation as the technical means became available, a telos that *seemed* to suggest expanded possibilities for the convergence of cinema and games. As Wolf, Geoff King and Tanya Kryswinska, Tom Bissell, and others have observed, the drive to produce more “realistic” video game characters in part has been motivated by the desire to remediate the established medium of cinema, its approach to character construction, and the various visual and auditory tropes it mobilizes in service of spectatorial alignment and identification.³⁷ Writing in 2003, Rehak contends that

video games have evolved toward ever more complex simulations of corporeal immersion, subsuming economic, social, and technological determinants under an overarching

³⁶ Print advertisement, *Atari Age*, Vol. 1 No. 4 (November/December, 1982), 9.

³⁷ See, for example, Wolf, “Abstraction;” Geoff King and Tanya Krzywinska, “Introduction: Cinema/Videogames/Interfaces,” *ScreenPlay: cinema/videogames/interfaces* (London: Wallflower Press, 2002), 1-32; Tom Bissell, *Extra Lives: Why Video Games Matter* (New York: Vintage Books), 74-82.

goal: to confront players with detailed and lifelike “doubles.” As the avatar took on character, history, and presence within increasingly detailed story worlds, the coded representation of sensory immersion represented by the FPS brought video games into dialogue with the dominant representational system of Hollywood filmmaking.³⁸

This dialogue has since progressed to the point that some of these increasingly detailed and life-like doubles (or at least, their advocates) would seek to claim visual supremacy over those digital characters found in big-budget, CGI blockbusters:

Resident Evil 5 looks great. Jaw-dropping. Eye-popping, even. Ken Lally, who did motion capture work for *RE* character Albert Wesker, is very impressed with how the look of the game has turned out. Lally even thinks that the game looks better than big budget, CG flicks: “It just looks so cool. It’s better than any motion capture movie I’ve ever seen, like *Polar Express* or *Beowulf*. I mean, just the design and the concept of lighting, even though it’s computer generated, the world itself is so unique and so dangerous. It’s shocking how unique it is. I would want to play the games just to immerse myself into that world.”³⁹

In theory, this growing dialogue between film and video game form and aesthetics — aided by their ever-converging technologies, ranging from motion capture to virtual set creation — should have yielded a growing number of transmedia characters which productively expanded their franchise storyworlds through their starring roles in both films and games. A closer examination of the

³⁸ Rehak, “Playing at Being,” 118.

³⁹ Brian Ashcraft, “But Does Resident Evil 5 Look Better Than Polar Express, Beowulf?” *Kotaku.com*, October 22, 2008, <http://kotaku.com/5066923/but-does-resident-evil-5-look-better-than-polar-express-beowulf>.

Beowulf franchise and its attempt at character convergence reveals that this has not necessarily been the case. In part, the elision of technological boundaries between media instead seems to have instead prioritized how the game character can function as an avatar of its film character, rather than its “real-world” players. Under these circumstances, the game character in question tends to function more as object for aesthetic contemplation than the locus of player agency and subjectivity. When contemplated thusly and compared to their cinematic counterparts, player aesthetics tend to be judged especially harshly. For example, in contrast with the acclaimed believability of the computer-generated Na’vi characters featured in James Cameron’s *Avatar* (2009), the Na’vi characters that anchor *Avatar: The Game* (2009) are faulted for being “stiff and awkward;”⁴⁰ while a review of *Fantastic Four: Rise of the Silver Surfer* (2007, Fig. 8 and 9) observes that “it’s not easy to make Jessica Alba look unattractive, but (game developer) Visual Concepts has done it.”⁴¹



⁴⁰ Erik Brudvig, “Avatar: The Game Review,” *IGN.com*, December 1, 2009, <http://xbox360.ign.com/articles/105/1050817p2.html>.

⁴¹ Aaron Thomas, “Fantastic 4 Rise of the Silver Surfer Review,” *GameSpot.com*, June 21, 2007, <http://www.gamespot.com/ps3/action/fantastic4riseofsilversurfer/review.html>.

Tom Bissell points out that the relatively “open” situations that video game characters occupy place extraordinary demands on any game that strives to achieve photorealistic characters with ‘believable’ human behaviour and movement, since player actions are constantly being “animated” by the player in real time. As Steve Preeg, Oscar-winning lead animator for *The Curious Case of Benjamin Button* (David Fincher, 2008) asserted during a recent video game industry conference, in contrast to the clearly scripted goals of Hollywood animators and the characters they create, “[video game] characters have to be compelling in very different ways, depending on what the audience wants to do.” (He then surveyed his audience of video game developers and industry bigwigs and gravely intoned, “You guys are going to have a very, very difficult time.”)⁴²

While the creation of realistic characters has always been — and, for the foreseeable future, will continue to be — one of the greatest drivers for improving the graphical capabilities of home gaming consoles, the clear technological *divergences* between early film and video games characters may have been ultimately responsible for the limited success they achieved as converged content. As we’ll see in a closer consideration of *Beowulf*, rather than easing the audience’s transition across media, the digitality of the franchise’s characters may have heightened spectatorial unease with transmedia consumption.

⁴² Bissell, *Extra Lives*, 82.

“I Am Beowulf! Now, It’s Your Turn”: The digital human as convergence character

His voice and motion-captured performance provided by English actor Ray Winstone, the digital star of Zemeckis’s 2007 film repeatedly bellows “I AM BEOWULF!” at the top of his lungs. However, these assertions of unified identity belie the fact that the franchise actually encouraged multiple points of entry into the character. Spectators could watch Beowulf on the big screen, and join his adventures vicariously via the immersive subjective perspectives on display in the 3D Imax release. They also could guide him as digital avatar-protagonist, hacking and slashing his way through *Beowulf: The Game*, released for PC and the X-Box 360, PlayStation 3 and Nintendo Wii game consoles, or *Beowulf: The Mobile Game*, a downloadable cell phone game launched at the same time. They could download his chiseled, golden-haired likeness as a digital skin for their *Second Life* avatar and explore Beowulf Island, a virtual environment created in the persistent online world for Paramount. They could even animate their own Beowulf avatar in their favourite MMORPG to create a machinima film trailer as part of a pre-release promotional contest. While Winstone got to “drive” the digital character of Beowulf on screen, after the credits had rolled the consumer had the chance to take the reins and have his or her turn playing (or playing as) Beowulf too. As per Jenkins’s model of the ideal transmedia franchise as a carefully-distributed, cross-media mode of storytelling, each text and each version of Beowulf seemed poised to make a unique contribution to the *Beowulf* storyworld. While the film roughly adheres to the

episodic structure of the original epic poem, depicting Beowulf's exploits as a young conquering hero and an aging king, the game connects these two episodes in his life by playing through the approximately 30 years of bloodspilling adventures that occurred between them.⁴³ Beowulf Island in *Second Life* and Beowulf machinima, meanwhile, seemed ideal forums for more open-ended exploration and user creativity that could extend long after audiences had watched the film and completed the game. Zemeckis was not the first director to translate the ancient epic poem to the big screen, as Sturla Gunnarsson's 2005 film *Beowulf and Grendel* (an Icelandic-Canadian-British-American-Australian co-production filmed on a relative shoestring on location in the director's native Iceland) preceded Zemeckis's all-CGI bloodbath in theatres by almost two years. But Zemeckis's version (with its whopping estimated \$150 M price tag for the film alone) was the first to receive the full franchise treatment, from its various interactive transmediations right down to a series of Beowulf action figures and replica swords.⁴⁴

⁴³ In fact, the episodic structure of Beowulf as epic poem actually makes it ideal source material for transmedia expansion, since the lengthy temporal break between episodes creates the type of gap or "negative capability" that can be filled in through other media forms. Neil Gaiman and Roger Avary's script for the *Beowulf* film provides a narrative connection between the two, previously unrelated periods of Beowulf's life through his affair with Grendel's mother as a young warrior, which in turn produces the dragon offspring that terrorizes Beowulf's kingdom as an aging king. With this causal link in place, *Beowulf: The Game* was ideally positioned to fill in the gap between these two episodes by allowing users to play through the three decades worth of adventures that separated them.

⁴⁴ The drastically different opening weekends of each Beowulf adaptation indicate the extent to which Gunnarsson's film was viewed as a stand-alone text, while Zemeckis's was conceived as a larger media event. *Beowulf and Grendel* premiered on a single screen in the US on June 18, 2006, earning \$4,360 in its

While *Beowulf*'s promotional and diegetic strategies sought to imply a high degree of consumer agency in weaving together this transmedia tale, its insistent blurring of the distinctions among these various iterations of Beowulf and the digital worlds in which they reside ultimately placed undue constraints on users who wished to intervene creatively upon the franchise. While the term "media convergence" may imply that all media are beginning to merge and behave similarly, the *Beowulf* franchise demonstrates how this assumption problematically overlooks the remaining divergences between cinema and interactive digital media. Such divergences are especially evident than in the case of the transmedia digital character or "convergence character" designed, in many cases, to maximize profits rather than enhance the transmedia experience.

The convergence character as "slider self"

As Zemeckis enthusiastically stated, franchise producers hoped audiences would make a seamless transition from Beowulf as cinematic character to Beowulf as interactive character, constructing the musclebound Viking as both a transformative character controlled by Winstone and a digital avatar that could be operated by the spectator-consumer. Through both its promotional strategies and its mode of address, *Beowulf* the film flaunts the ways in which cinematic digital characters can emulate the super-human capabilities of videogame

opening weekend. Zemeckis' *Beowulf*, in contrast, received a wide release on more than 3,000 regular and IMAX screens, grossing \$27.5M in its opening weekend. See "Box office/business for *Beowulf & Grendel*," [imdb.com, http://www.imdb.com/title/tt0402057/business](http://www.imdb.com/title/tt0402057/business); "Box office/business for *Beowulf*," [imdb.com, http://www.imdb.com/title/tt0442933/business](http://www.imdb.com/title/tt0442933/business).

avatars, at the same time as it urges consumers to intervene via one or all of its interactive spin-offs. In so doing, the franchise holds out the promise of transmedia character identification and consumption as a wholly engulfing experience: it allows spectator-consumers to become further immersed in Beowulf's digital storyworld through virtual exploration and play, at the same time as the Beowulf character spills over and becomes ubiquitous in the world of the user — constantly accessible on one's cell phone, for example, or through a constantly-open browser window on one's computer.

Thanks to an upgraded version of the performance capture technology Zemeckis used to digitize Tom Hanks in *The Polar Express*, Winstone found himself cast in what would have been an otherwise implausible role for the paunchy ex-boxer and character actor: that of hunky leading man. In the film's promotional build-up, Winstone repeatedly enthused that performance capture took the limitations of his 'real' body out of the equation and allowed his bodily and facial performance to drive the actions of his chiseled digital stand-in (Fig. 10). "The great thing about it," he admitted, "is that it allowed someone like me, who is 5'10" and a little on the plump side, to play a 6'6" golden-haired Viking."⁴⁵

⁴⁵ From "Beowulf Production Notes," accessed April 16, 2010, <http://www.beowulfmovie.com/>.



Fig. 10

As in the extensive promotional build-up to *The Polar Express*, the film's promotional materials emphasize the limitless possibilities provided to the human actor by a transformative digital *character*, a relationship of mastery and control over the digital human image with obvious parallels to that of the relationship between player and avatar. It is a relationship of mastery franchise that producers also hoped spectator-consumers would ultimately develop with different, interactive iterations of the Beowulf character.

Winstone's enthusiasm for his digital stand-in transcended pure actorly vanity, since Beowulf's menacing stature and chiseled appearance are strongly linked to (and indeed, serve as a kind of shorthand for) his exceptional abilities. In praising his digital stand-in for allowing him to transcend the limitations of his lived physicality and capacities, Winstone echoes the enthusiasm of those participants in video role-playing games and persistent online virtual worlds, who invest extensive amounts of time constructing their "slider selves," in Boellstorf's terms: digital stand-ins can be tweaked and modified using in-game

affordances to create the player's desired representation of him or herself in the world of the game, even if that avatar bears little resemblance to the player controlling them.⁴⁶

However stage managed they may be, Winstone's comments suggest that Beowulf represents a successful "projective identity" for the actor, to borrow Gee's term, insofar as the character represents a "delicious blend" of virtual and non-virtual identities that allow each to transcend their individual limitations.⁴⁷ The "Proteus Effect" that Yee and Bailenson identify, wherein enhanced self-representation in virtual worlds can also increase the assertive behaviour of the user both on and offline, seems to have inflected Winstone's "real world" motion-capture performance.⁴⁸ He confesses that having his digital alter ego in mind enabled him to be braver and more overtly physical in the role than originally planned, including the decision, once production began, to perform all of his own stunts. "It wasn't just voice, believe me," he corrected a journalist who referred to Beowulf as a vocal performance. "I broke two ribs doing this film. Probably the most physical job I've ever done in my life on a film."⁴⁹

It's worth noting that Winstone is the only cast member who appropriates this gamer-avatar discourse — and, perhaps not coincidentally, he is the only interactive or "playable" character in the franchise. (Other characters appear in *Beowulf: The Game* only as computer-controlled non-player characters, and

⁴⁶ Boellstorff, *Coming of Age*, 129.

⁴⁷ James Paul Gee, *What Video Games Have to Teach Us*, 55-56.

⁴⁸ Yee and Bailenson, "The Proteus Effect."

⁴⁹ Ryan Pierson, "'Beowulf' vs Cartoons: Animated Debate Rages," *Associated Press*, November 25, 2007, <http://www.azcentral.com/arizonarepublic/ae/articles/1125animation1125.html>.

were absent from Beowulf Island in *Second Life*.) With the exception of Beowulf, the rest of the high-profile cast were denied transformative “slider selves” and given digital doubles instead. These other digital characters were created, like Winstone, from the actors’ performance capture data, but also from high-resolution photographic scans of the stars’ faces and bodies. Indeed, while Winstone enthused about transcending the limitations of his “real” body to play a 6’6 Viking, co-star Angelina Jolie claimed profound unease at how much her character replicated her actual appearance, especially when she saw her nearly-naked digital likeness on screen for the first time (Fig. 11).

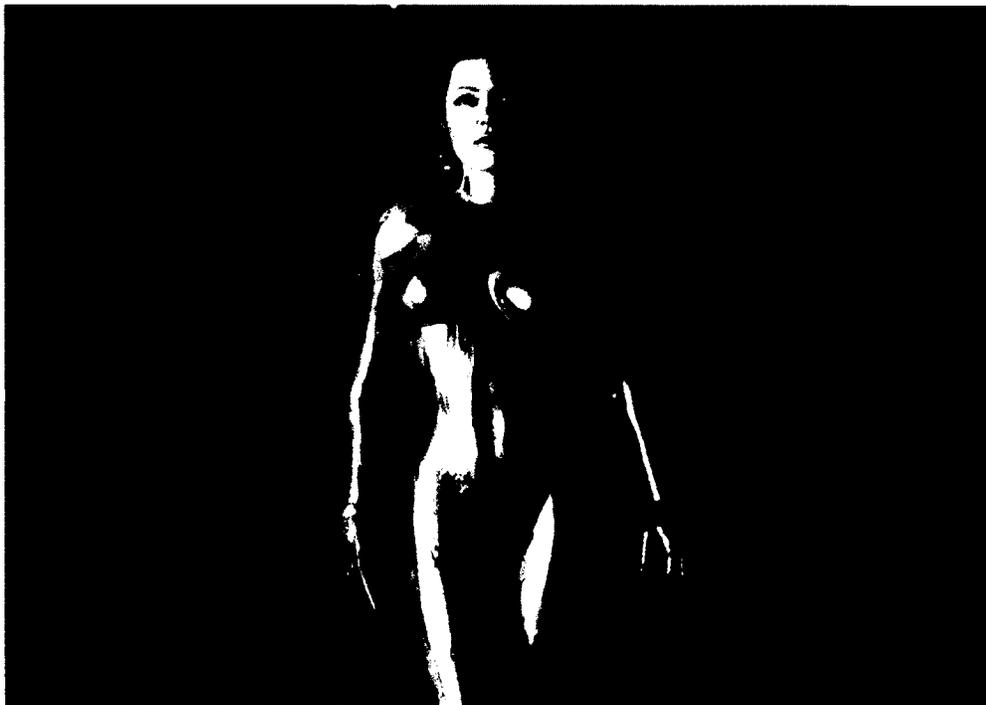


Fig. 11

By uncoupling only Winstone's image from that of his cinematic avatar, the *Beowulf* franchise sought to ease consumer transition from one media form to the next and one version of Beowulf to the next, creating a transformative character into which viewers could more readily project themselves in the context of game play or virtual exploration. As addressed in Chapter 4, in live-action cinema, a star's image is always, to some extent, carried into the role they play; as a result, these "digital doubles" of such recognizable stars as Jolie, Anthony Hopkins and John Malkovich are similarly bound to the expectations and constraints of their respective star images. Given the doubled-avatar status of movie-licensed game characters as stand-ins for both player and film character, these figures are less suited to succeed as interactive player-characters. This excess star baggage leaves minimal space for users to form a successful projective identity with the digital avatar as both an extension of self and a highly constructed, often super-empowered other.⁵⁰

Get in the game

Of course, since the pleasure of videogame play is as much kineasthetic as it is visual, how the digital character Beowulf "looks" may ultimately be less important than how he acts — or rather, how it feels to act as Beowulf within the transmedia storyworld. Following the widely held assertion that interactive digital characters are as much defined by their functionality and capacity within

⁵⁰ Gee, *What Video Games Have to Teach Us*, 55.

game space as they are by a richly developed persona,⁵¹ Beowulf's capacities as interactive character are alluded to during the film's prolonged, game-like sequences, all of which feature the "playful" mode of video game-like address discussed in Chapter 4. Although these sequences are in part intended to showcase the film's 3D IMAX format, they also gesture towards how the viewer may go on to further explore the franchise via its interactive digital storyworlds while aligned with the Beowulf character, suggesting how it should look and feel to act as Beowulf when you, the consumer — not Winstone the actor — are in charge. Beowulf leaps, rides, swims and flies through no fewer than half a dozen such sequences throughout the film, and we are pulled along with him thanks to the acrobatics of Zemeckis's virtual camera.

These sequences oscillate mainly between first-person and tightly held third-person perspectives that strive to immerse us in elaborate, fully realized digital spaces that present new challenges to act upon at every turn. One of the most striking examples — Beowulf's final, climactic airborne battle with the dragon terrorizing his kingdom — enforces a dizzyingly close alignment with our hero (Fig. 12) as he chases down the flying beast on horseback and then fights him to the death, favouring an over-the-shoulder camera position highly reminiscent of that mobilized by such popular video role-playing games as *Mass Effect* (Bioware, 2007), *Morrowind*, and *Fallout 3*.⁵²

⁵¹ See, for example, Juul, "Games Telling Stories?"; Newman, *Videogames*, 134; Sheila Murphy, "'Live in Your World, Play in Ours': The Spaces of Video Game Identity," *Journal of Visual Culture* Vol. 3, No. 2 (2004): 223-238.

⁵² As addressed in Chapter 4, in contrast to a purely embodied, first-person perspective, this combination of close alignment with one's avatar at the same



Fig. 12

The perceptually immersive, first-person perspectives that encouraged an often excessive, empathic mode of alignment with *The Polar Express*'s characters are here reserved for providing viewers with crucial information about various approaching obstacles, deadlines, as well as vital clues as to how Beowulf will eventually defeat his adversary — for example, Beowulf's subjective look at the dragon's glowing throat, prompting his recollection of Hrothgar telling him that this is his enemy's weak spot.

In navigable digital game space, Lev Manovich has suggested, narration and action are closely linked, and looking and acting are the two key activities performed by the player.⁵³ I would argue that these sequences remediate the phenomenology of actionable digital game space, placing the Beowulf character temporarily in charge of the camera in almost real-time, rendering narration and

time as the avatar body remains visible to the player has been shown to evoke a more complex of mode of player identification with the character as both extension of self and fictional other. See, for example, Waggoner, *My Avatar, My Self*, 41-42.

⁵³ Manovich, *The Language of New Media*, 245-247.

action nearly inseparable in the process. In so doing, these sequences approximate what Katherine Isbister terms the “visceral feedback” we experience while “looking and acting” as the interactive character, an experience shaped by what sorts of physical powers a character possesses and how it feels to move through the gameworld.⁵⁴ As per Brookey and Booth’s suggestion that the success of a franchise’s cross-promotional strategies depends on the constant reminder that there are other products to be consumed, the trope of immersion in *Beowulf* directs consumers towards the supposedly immersive experience of consuming all versions of the Beowulf character.⁵⁵

The Immersive Fallacy and the Transmedia Character

The film’s spectacularly immersive mode of address suggests some rather elaborate possibilities for “looking and acting” as Beowulf in the franchise’s interactive spin-offs, possibilities those media can’t and ultimately don’t live up to. The film leaves a gap of three decades in its storyline for the console game to fill in with a series of missions not depicted on screen. However, almost all of the film’s “immersive” sequences are also repeated in the game, but with decidedly less mobility and potential for action than Beowulf is capable of on-screen, in part due to the huge processing requirements of creating interactive real-time gameplay with photorealistic graphics. For example, in the film, our

⁵⁴ Katherine Isbister, *Better Game Characters by Design: A Psychological Approach* (San Francisco: Morgan Kaufmann, 2006), 204-205.

⁵⁵ Brookey and Booth, “Restricted Play,” 227.

first exposure to Beowulf's heroics comes when he must singlehandedly slay a half-dozen sea monsters with his bare hands (Fig. 13). Swinging from one beast



Fig. 13: Beowulf battles the sea serpents in *Beowulf*, the film to the next as they pull him through the ocean at breakneck speeds, he progressively learns and executes the series of moves that will dispatch of the beasties most effectively: a winning combination of punching, grabbing, stabbing and disemboweling. In the game (Fig. 14), the sea serpents provide a training level where players learn the series of moves that will help move Beowulf through the game most effectively, mimicking Beowulf's learning curve in the film almost identically.

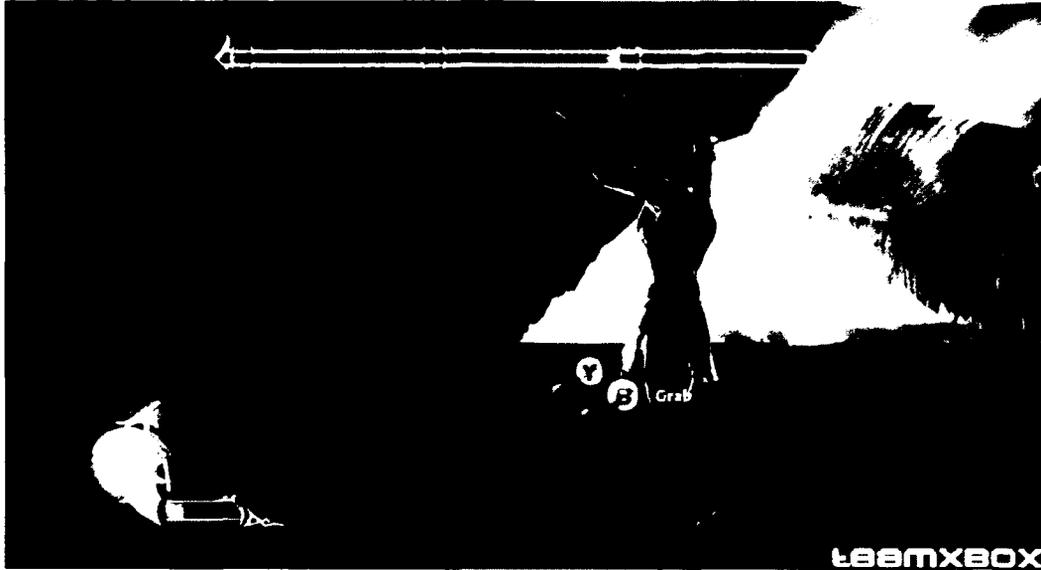


Fig. 14: Beowulf battles the sea serpents in *Beowulf: The Game*

In order to focus upon teaching the rules of the game in an expedient fashion, gameplay is confined in this case to a rocky cliff where Beowulf stands and waits for the serpents to appear. Serving more as an object for aesthetic contemplation than a locus of subjective agency and fluid exploration, Beowulf attacks and defeats the serpents from a mostly static position, guided by a series of flashing prompts telling us which buttons to press, and when, in order to achieve the desired moves. Not only does the player experience drastically different visceral feedback via the Beowulf character than what was suggested by the film, but this non-diegetic, “informatic” layer of gameplay guidance further pulls us out of this implied immersive alignment.⁵⁶

⁵⁶ For Alexander Galloway, the visible user interface or HUD (heads-up display) must always be understood as a code-driven, non-diegetic layer overlaid upon (and thus, fundamentally removed from) the fictional storyworld of the game. See, for example, Alexander Galloway, “Warcraft and Utopia,” in A. Kroker and M. Kroker eds, *Critical Digital Studies: A Reader* (Toronto, Canada: University of Toronto Press, 2008), 113–115.

In its excessive attempts to construct Beowulf as transmedia character, the film subscribes to the “immersive fallacy” of total engulfment or presence in a virtual world that Salen and Zimmerman have faulted as highly being detrimental to game and game character design:

The immersive fallacy would assert that a player has an “immersive” relationship with the character, that to play the character is to become the character. In the immersive fallacy’s ideal game, the player would identify completely with the character, the game’s frame would drop away, and the player would lose him or herself totally within the game character.⁵⁷

As Salen and Zimmerman have so convincingly argued and as addressed in the discussion of avatars in Chapter 4, even though video game privilege a central, empathic mode of identification with their characters, in the context of gameplay the illusion of complete “presence” and bodily immersion is just that, since we are constantly shifting between cognitive frames that alternately place us “inside” of our character in a relationship of direct identification and very much outside of it, aware of the character as an artificial construct, and our own status as players operating it according to the rules of the game:

A player’s relationship to a game character he or she directly controls is not a simple matter of direct identification. Instead, a player relates to a game character through the double-consciousness of play. A protagonist character is a persona through which a player exerts him or herself into an imaginary world; this relationship can be intense and emotionally “immersive.” However, at the very same time, the character is a tool, a puppet, an object for the player to manipulate according to the rules of the game. In a sense, the player is fully aware of the character as an artificial construct.⁵⁸

⁵⁷ Salen and Zimmerman, *Rules of Play*, 453.

⁵⁸ Salen and Zimmerman, *Rules of Play*, 453.

Salen and Zimmerman deem this “hybrid consciousness” one of the unique pleasures of gameplay. However, by putting forth the ideal of seamless, immersive alignment with our protagonist-character in its primary media text, the Beowulf franchise sets its interactive characters up to disappoint when they inevitably cannot deliver on this promise.

While the film promises an impossibly immersive alignment with Beowulf as interactive character, *Beowulf: The Game* features a digital character constrained by the temporal linearity and spatial boundedness of cinematic expectations, at times even resistant to even the most basic interventions of game play. For all that it could have allowed players a more open-ended and customized engagement with the Beowulf character, the game constructs a narrative that slavishly adheres to and fills in the linear timeline laid out by the film, forcing the player along on rails between gameplay levels and non-interactive cinematic cut scenes, many of which repeat, verbatim, dialogue from the film. Game reviews repeatedly cite this insistent linearity as one of the greatest flaws of *Beowulf: The Game*, and fault the multiple ways in which developers had limited both the “actionability” of the gamespace and the capabilities/capacity of the Beowulf character in order to keep players traveling along this linear path:

Beowulf, in an effort to seem open ended, is full of branching paths whose avenues lead to dead ends. Even worse, one trail will be blocked by a waist-high boulder that your mightiness cannot scale, yet the only way forward will entail a 20-foot climb straight up a vertical surface. Truly,

Beowulf does not know his own strength, and neither does Ubisoft.⁵⁹

Beowulf can scale sheer rock faces with his bare hands one moment, but be brought to a standstill by a waist-high boulder the next; he'll fearlessly plummet down a treacherous waterfall or into the depths of a seemingly endless cave, but flat-out refuse to hop down into an innocuous gulley if it threatens to take him off course. These inconsistencies prevent the player from experiencing the sort of smooth, intuitive cognitive immersion that Isbister deems crucial to a player's psychological experience of his character, whereby the player must be able to synchronize his problem-solving capabilities with those of his avatar to chart an eventually-effective course of action through the game.⁶⁰ Even Beowulf's movements within gamespace were faulted for being too "linear" and "cinematic." In the most heated battles, for example, many of his key attack moves are lengthy animations triggered by the right sequence of button mashing, which means the gamer can't actually intervene to re-direct him until the animation has finished. This mechanic was consistently faulted by reviewers for lowering the stakes of gameplay.⁶¹ The choice of whether to use "heroic" or

⁵⁹ Joe Dodson, "Beowulf: The Game Review," Gamespot.com, November 21, 2007, <http://www.gamespot.com/beowulf-the-game/reviews/beowulf-the-game-review-6183284>.

⁶⁰ Isbister, *Better Game Characters*, 205.

⁶¹ See, for example, Dodson, "Beowulf," 2007. "The funny thing is that you don't actually have to dodge an attack. You simply hit dodge followed by power strike, and Beowulf automatically executes the super swing while moving toward the nearest enemy Beowulf seems to be invulnerable during both animations, so as long as you hammer on the dodge-and-attack sequence, you can cinematically cleave and stomp your way through an unlimited number of barbarians, monkey men, or worshippers, all while healing yourself and your allies."

“carnal fury” modes of gameplay suggests a kind of moral choice system that will affect Beowulf’s progress through the game and his development as a character; however, this choice proves an illusion, since certain battles can only be won using carnal mode, and regardless of which mode you use more often, the outcome of the game remains the same.

If, as Jesper Juul suggests, it is the player’s *activity* and the game’s evaluation of and response to that activity that ultimately guarantees player investment and presence in the game, *Beowulf: The Game* falls decidedly short.⁶² While the digital character of Beowulf allowed Winstone to transform himself and give a liberating, death-defying performance in the film’s digital storyworld, players struggle to act effectively when given control of their own Beowulf avatar, its shortcomings as a stand-in for the player forcing a harsher evaluation of how it functions as an avatar for its cinematic source material. This reviewer clearly articulates how Beowulf’s (and thus, the player’s) ineffectiveness in the gameworld can lead to a hyper-critical judgment of character appearance:

Most of the environments look good, with plenty of atmosphere and creepy set pieces, and the cinematic violence certainly employs enough blood. *But Beowulf executes the same attacks over and over, and the guy himself isn't very cool-looking.* His weird Viking ponytail looks awful, and some of the other textures look last-generation.⁶³

Such harsh evaluations weren’t limited to character appearance. In an effort to further foreground the convergence of its film and game characters,

⁶² Jesper Juul, “Games Telling Stories?” NP.

⁶³ Dodson, “Beowulf.” Emphasis mine.

Paramount heavily promoted the fact that key cast members (and noted thespians) Winstone, Anthony Hopkins, and Brendan Gleeson provided the vocal performances in *Beowulf: The Game*. (For example, during the game's promotional build up, writer and lead story designer Gabrielle Schrager enthused that the "actors seamlessly translated their characters' depth and emotion, breathing life into their video game roles as they did for the film.")⁶⁴ However, by prioritizing cinematic authenticity for its characters through shared vocal performances, game designers may have ultimately further impeded player alignment with them. After all, a star's image and its attendant baggage isn't confined to physical appearance; the unique quality of an actor's voice serves as an auditory guarantee of diegetic presence, even if the photographically recorded image of the body is absent. In the case of *Beowulf: The Game*, the highly touted presence of actors Winstone, Hopkins, et al. may have prompted somewhat unfair expectations for the kinds of performances currently possible in the medium of the video game. As Mary Ann Doane observes, cinematic performances — and indeed, the very unity of narrative cinema itself — depend on the appearance of synchronous dialogue (and the "lip sync" between actorly speech and facial expression) in order to conceal their material heterogeneity.⁶⁵ However, in *Beowulf: The Game*, the disjuncture between vocal and visual performance repeatedly points up the separate origins of sound and image —

⁶⁴ Filip Truta, "Anthony Hopkins is the Voice of King Wrothgar in the Beowulf Video Game Too," Softpedia.com, October 26, 2007, <http://news.softpedia.com/news/Anthony-Hopkins-is-the-Voice-of-King-Wrothgar-in-the-Beowulf-Video-Game-Too-69261.shtml>.

⁶⁵ Mary Ann Doane, "The Voice in Cinema: the articulation of body and space," *Yale French Studies* 60 (1980): 34-35.

and thus, the heterogeneity of the character in question. When not shouting repetitive and nonsensical catch phrases (“I am Beowulf!” “Stand together!”) in the heat of battle, Winstone’s voice is matched with a decidedly lower-resolution version of Beowulf than his cinematic counterpart in the context of non-interactive cut scenes, and forced to recite extensive exposition through lips only partially capable of wrapping themselves around the syllables. Game reviewers and gamers alike faulted the game’s “shoddy” voice acting⁶⁶ as a reason to “stop listening to the characters in the middle of the game,”⁶⁷ but tended to ground this criticism in the perceived disjuncture between sound and image rather than any inherent shortcomings in the vocal performance alone.

Beowulf’s other high-profile interactive identity — as a downloadable avatar in *Second Life* — further curtailed the kind of customization and creative intervention users have become accustomed to. While Beowulf may have proven the ideal “slider self” for Winstone, *Second Life* residents who wanted to tweak their versions of Beowulf (Fig. 15) according to their own ideals of self-representation were unable to do so, their “sliders” disabled in order to maintain the proprietary character image defined by Zemeckis’s film. Due to the doubled-avatar status of the movie-licensed interactive character, how users could “look and act” on Beowulf Island was limited by its role in the film’s promotion.

⁶⁶ Charles Onyett, “Beowulf Review,” IGN.com (web site), November 13, 2007, <http://ps3.ign.com/articles/835/835434p2.html>.

⁶⁷ Gamer review posted by user lamx30108200, “Nice graphics and good gore scenes and . . . that’s about it” Gamespot.com, March 13, 2008, url no longer active.



Fig. 15

Once they had downloaded their Beowulf avatar, users were guided, not into an immersive exploration or expansion of the *Beowulf* universe, but rather into entering into the “Beowulf avatar sweepstakes” where they could win tickets to the theatrical release of the film. And while the designers of Beowulf Island, the Electric Sheep Company, had successfully expanded the storyworlds of *CSI* and *I Am Legend* into *Second Life*, at Paramount’s insistence Beowulf Island was not actually used for any sort of fictional expansion of the franchise. Instead, it was merely a site where merchandise could be acquired, promotional contests could be launched, and cast and crew could give interviews. The “build” feature was disabled on the island, preventing users from performing their own creative additions the *Beowulf* storyworld. This promotional mandate was reinforced by Electric Sheep’s head of business development, Jason Mirvis, when I contacted him about the project:

The Beowulf campaign was conducted on behalf of
Paramount Pictures to help promote the release of the film. .
. . The Beowulf Island was never meant to be a permanent

sim within SL, and the island was closed after the marketing campaign ended.⁶⁸

Not long after the *Beowulf* DVD had been released and the promotional obligations of the Island fulfilled, it disappeared into the cyber-ether (and, sadly, along with it went Jez Albatros, the avatar I'd created solely for the purpose of living happily ever after on *Beowulf* Island.) The only transmediation of *Beowulf* that allowed consumers creative control over *Beowulf*'s image was a machinima contest where users fashioned their own *Beowulf* trailers using the game engine of their choice. As Gray asserts, machinima provides an ideal forum for the transmedia expansion of character:

When screened for others, machinima works much like vids or fan fiction, adding stories to the text's expanding diegesis, perhaps giving visual form to the fan text and fan canon, or "fanon" If videogames allow considerable possibilities for the exploration of narrative space, machinima artists, by repurposing them to create machinima, also open up considerable room for the exploration of character.⁶⁹

Certain entries in the *Beowulf* machinima contest suggested the possibilities for playful enrichment and modification of the *Beowulf* character; one fan re-created the *Beowulf* trailer in the world of *Halo* with Master Chief in the role of the Viking hero, while another fashioned his own lookalike *Beowulf* avatar in the *World of Warcraft* game engine.⁷⁰ But by enforcing the exact repetition of

⁶⁸ From an email correspondence with Jason Mirvis, head of business development with The Electric Sheep Company, May 6, 2009.

⁶⁹ Gray, *Show Sold Separately*, 198.

⁷⁰ See, for example, "Halowulf," <http://www.youtube.com/watch?v=5DbePZddEuU&feature=relmfu>; "BeoCraft,"

sanctioned trailer dialogue, the contest ultimately rendered these creations mere parrots of the film's promotional materials rather than any sort of truly creative intervention upon or expansion of the Beowulf character.

At a time when the production processes, aesthetic possibilities, and commercial goals of digital media forms have never been more intertwined, digital human characters have become one of the most compelling case studies in the ways in which film and video games are converging. However, as the *Beowulf* franchise demonstrates, the successful convergence character remains difficult to achieve in even the most carefully conceived transmedia franchise. For all their superficial similarities, the many faces of Beowulf ultimately reveal how certain medium-specific expectations for character construction and identification remain. Elkington suggests that, in trying to blatantly appeal to the fans of both films and games and emphasize the “converged” nature of its various media platforms, many contemporary franchises end up being self-defeating — in other words, in trying to be appeal to everyone, they end up pleasing no one.⁷¹ As the corporate goals and aesthetic possibilities of cinema and digital games continue to merge in the entity of the digital human character, it remains to be seen whether media producers can find new and compelling ways to avoid this self-defeat.

http://www.youtube.com/watch?v=F1A3f_P2Xno.

⁷¹ Elkington, “Too Many Cooks,” 233.

CHAPTER SIX

Conclusion: Mapping a future for the digital human as convergence character

It's good that we took our time, because if we'd done it in the 90s there would be this crushing expository burden of "There's this thing called the internet! This is what it is! Lots of people can be logged on to it at the same time!" It would have been excruciating and taken up half the movie. And a few years later it would have seemed sadly dated and wrong. Now we don't have to do that. We don't need to explain what an avatar is...none of that has to be explained.¹

Author Neal Stephenson's recent, much-circulated quote about the long-awaited film adaptation of *Snow Crash* provides a revealing testament to how our engagement with the digital human (and digital media more broadly) has undergone a significant transformation in the decades since his novel's 1992 publication. This study acknowledges this transformation through a close analysis of the changing role of the digital human in Hollywood cinema, tracing the transition from the mostly speculative notion of the digital actor or synthespian as a replacement for the human star to that of the digital character as an empowering avatar for both the human performer and the spectator-consumer. In order to counter vague, ahistorical claims that spectators are innately capable of detecting the smallest deviations from "normal" appearance and behaviour in the digital human, I have argued that the presentation and reception of these figures is historically contingent and constantly changing, informed both by the viewer's always shifting relationship to new technologies

¹ Tim Maughan, "Geeks, Swords and the *Snow Crash* Movie: Neal Stephenson in Conversation," *Tor Dot Com*, Sept. 19, 2012, <http://www.tor.com/blogs/2012/09/geeks-swords-and-the-snow-crash-movie-neal-stephenson-in-conversation>.

and his or her broader understanding of how the image in question was produced. Building on Lisa Bode's assertion that our engagement with the animated human figure must always be understood within a larger framework of what it means to be human within broader cultural and technological systems at the time, this study situates the digital human within the context of media conglomeration and convergence.

In so doing, this study challenges certain exaggerated claims about the radical newness of so-called "new" media that have been linked to the figure of the digital human over the years. Although the synthespian was meant to embody a radical break between "old" and "new" media, as my case studies illustrate, the digital human ultimately demonstrates how newer and more traditional media forms necessarily influence and remediate one another under media convergence. Even though their early promotional materials and academic reception suppressed their connection to traditional media, digital humans draw upon "real" bodies, mechanical interventions, and analogue recording processes associated with live action cinema and drawn animation. Meanwhile, more recent instantiations of the digital human feature extratextual and diegetic strategies that strive to emphasize the overwhelming convergence of cinema and video game characters, positioning the former as effortlessly and seamlessly translatable into the latter. I argue that the digital human's shifting presentation and reception has been informed by the imperatives of conglomerate-owned studios seeking to cultivate "interactive" spectator-consumers who actively and repeatedly engage with all iterations of a digital character through the vertically

integrated windows of multiple DVD releases, Video-On-Demand, and television broadcast, as well as through a range of horizontally integrated, cross-media ancillaries, including video games and persistent virtual worlds.

As a result, I argue, the perceived “unease” that the digital human evokes may have much more to do with the complex ways in which these figures blur media boundaries than it does their embodiment of a distinctive “break” between modes of representation. After all, as this study shows, the uncomfortable reception of the digital human persists with its reframing from synthespian to convergence character, but shifts such that spectator-consumers once uneasy at the prospect of new media replacing old media become uncomfortable with convergence-era attempts to level all distinctions between media forms and their occupants. With this in mind, I argue that the different ways in which we engage and interact with human characters remain one of the major salient distinctions between media forms. These figures and their reception therefore articulate larger concerns about what it means to be human within the broader technological and industrial system of digital convergence culture, and how these concerns — particularly surrounding what constitutes proper engagement with a given media form — can and have undergone significant changes, even in the span of a single decade.

As addressed in Chapter 2, by privileging the link between analogue recording processes and human authenticity, early synthespian scholarship articulated clear anxiety over the fate and future of media production and consumption in the digital age. Yet much of this anxiety was displaced onto the

narrative of synthespians replacing real actors, a displacement that fails to acknowledge how the digital human is as much an allegory of media change as it is one of altered human or posthuman subjectivity — or rather, of how the changes to human subjectivity embodied by the digital human are those brought about by the processes and protocols of media convergence. One of the central goals of this study has been to redress this oversight within extant scholarship on the digital human. I therefore closely consider the relationship between animated human images, the “real” bodies and physical interventions of the actors and animators that create them, and their primarily digital storyworlds, acknowledging how this relationship has been mediated by the proliferation of conglomerate-sanctioned supplementary promotional materials and extratextual “how to” discourses that surround the figure of the digital human. As I show, while these discourses address and cultivate an increasingly knowledgeable and “interactive” spectator-consumer, by claiming to place the consumer in control of newly pervasive digital technologies and media, they also encourage a specific kind of engagement geared towards the exhaustive consumption of all the facets of, and character iterations within, a given franchise. These discourses often also function in conjunction with an immersive, gamified mode of cinematic address to produce unrealistic expectations for the “ease” of character transmediation and the resulting possibilities for spectator-consumer intervention across still disparate media forms.

This study points to the necessity of mapping a future for the digital human as a transmedia convergence character. At present, while video games

have become increasingly crucial to successful media franchises, the reception of digital human characters that make the leap from cinema screen to video game console remains almost uniformly negative.² I would argue that any productive future analysis of the digital human-as-convergence character needs to deal with problems emerging from the convergence of film and video game characters, highlighting the clear discrepancies between the stated goal of seamless movie-game convergence and the reality of the finished products. As I show, as digital game characters now come to resemble their cinematic counterparts, industry wisdom suggests that these similarities will ease the consumer transition from film to game, and that the technological convergence of cinema and games will inevitably give way to successfully converged content. Although outside the bounds of this study, the analytical framework established herein could be usefully adapted and expanded to interrogate this assumption, examining transmedia franchises and their digital human characters at the level of their stated industrial goals, their narrative and aesthetic intentions, and their public reception. By scrutinizing franchise promotional materials and journalistic coverage, conducting extensive interviews with their video game developers and publishers, and closely analyzing their film and game

² This is evident, for example, in the recent critical drubbing of the much anticipated video game version of the eponymous, performance capture-created hero of *The Adventures of Tintin: The Secret of the Unicorn* (Steven Spielberg, 2011), deemed “another game to add to the pile of movie tie-in games that missed that mark, and . . . a failed opportunity to do something great with a well-loved character.” See Mark Walton, “The Adventures of Tintin: The Game Review,” Gamespot.com, October 28, 2011, <http://www.gamespot.com/the-adventures-of-tintin-the-game/reviews/the-adventures-of-tintin-the-secret-of-the-unicorn-review-6341917/>.

incarnations, a series of remaining obstacles to “seamless” movie-game convergence would likely become apparent.

As I argue herein, movie-licensed game characters must be understood for how they function as “doubled” avatars, in-game representatives of both their player and their big-screen source material. Contemporary media franchises tend problematically to prioritize the latter, encouraging cross-media consumption by blurring the boundaries between their film and game characters, highlighting their shared technical processes and visual similarities and mobilizing an immersive, game-like mode of address in relation to their film characters. However, game characters that slavishly remediate their filmic counterparts tend to be faulted for how they approach, but fail to achieve, cinematic realism, sacrificing quality gameplay in the process. It is necessary to question this industry practice of prioritizing game characters as successful avatars for their film characters rather than functional stand-ins for their players, and to consider this phenomenon as exemplary of the remaining inequality between films and digital games in our contemporary convergence equation. As Brookey observes, studios have little at stake when they license their films as games, since current licensing practices ensure that studios profit from game spin-offs even if they lose money for their producer.³ For all that franchise promotional materials espouse the seamless technological convergence of films and games, in reality, these productions are hindered by vastly different production schedules and the use of proprietary, rather than shared, digital animation technologies. These

³ Brookey, *Hollywood Gamers*, 17.

disparities too often result in the creation of cheap “peripheral” games featuring characters that resemble their cinematic counterparts, but do little to expand or enrich their franchise storyworld. Considerable risks are borne by game developers and publishers when they undertake movie-licensed projects, and a sizable gap remains between the industry discourse that surrounds character convergence and its reality when placed into production.

As I acknowledge in Chapter 5 through my examination of abstraction in early movie-licensed games, a more hopeful model for the digital human as convergence character arises in franchises that seek to strongly differentiate their game and film characters, be it through character abstraction (such as that practiced by the Warner Bros.-owned LEGO franchise of movie-licensed games), the use of secondary characters and unexplored facets of a franchise storyworld (*Star Wars: Knights of the Old Republic* [BioWare, 2003]; *Enter The Matrix* [Shiny Entertainment, 2003]) or embodied interfaces as a means of enhancing character functionality (*TRON: Evolution* [Propaganda Games, 2010]; *Kinect Star Wars* [LucasArts, 2012]). If, as Jenkins asserts, the ideal form of transmedia storytelling allows each medium to do what it does best, these franchises succeed because they allow the residents of each medium to do what they do best by maintaining the necessary distinctions between cinema and digital game characters. Ideally, future work on the digital human will challenge more idealized forecasts for media convergence, demonstrating how fictional characters do not so much “flow” from one medium to another as they point up

the remaining obstacles to such translation, placing extraordinary demands on media producers and consumers in the process.

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The Adventures of Tintin: The Secret of the Unicorn (Steven Spielberg, 2011)
AI: Artificial Intelligence (Steven Spielberg, 2001)
Avatar (James Cameron, 2009)
Beowulf (Robert Zemeckis, 2007)
Beowulf and Grendel (Sturla Gunnarsson, 2006)
Cast Away (Robert Zemeckis, 2000)
A Christmas Carol (Robert Zemeckis, 2009)
The Crow (Alex Proyas, 1994)
The Day After Tomorrow (Roland Emmerich, 2004)
Don't Touch Me (Diana Walczak and Jeff Kleiser, 1988)
Dr. Strangelove (Stanley Kubrick, 1964)
The Empire Strikes Back (Irvin Kershner, 1980)
Final Fantasy: The Spirits Within (Hironobu Sakaguchi, 2001)
Finding Nemo (Andrew Stanton, 2003)
Gamer (Mark Neveldine and Brian Taylor, 2009)
Gladiator (Ridley Scott, 2000)
The Green Mile (Frank Darabont, 1999)
Harry Potter and The Goblet of Fire (Mike Newell, 2005)
How to Train Your Dragon (Dean DeBlois and Chris Sanders, 2010)
I'll Be Glad When You're Dead, You Rascal You (Fleischer Brothers, 1932)
I'm Not There (Todd Haynes, 2007)
The Incredibles (Brad Bird, 2004)
Independence Day (Roland Emmerich, 1996)
Jaws (Steven Spielberg, 1975)
Jurassic Park (Steven Spielberg, 1993)
King Kong (Peter Jackson, 2005)
The Ladykillers (Ethan and Joel Coen, 2004)
The Last Starfighter (Nick Castle, 1984)
Lawnmower Man (Brett Leonard, 1992)
The Lord of the Rings: The Fellowship of the Ring (Peter Jackson, 2001)
The Lord of the Rings: The Two Towers (Peter Jackson, 2002)
The Lord of the Rings: The Return of the King (Peter Jackson, 2003)
The Matrix (Andy and Lana Wachowski, 1999)
The Matrix Reloaded (Andy and Lana Wachowski, 2003)
The Matrix Revolutions (Andy and Lana Wachowski, 2003)
Memento (Christopher Nolan, 2000)
Nestor Sextone for President (Diana Walczak and Jeff Kleiser, 1988)
The Old Man of the Mountain (Fleischer Brothers, 1933)
The Parent Trap (David Swift, 1961)
Philadelphia (Jonathan Demme, 1993)
The Polar Express (Robert Zemeckis, 2004)
Rise of the Planet of the Apes (Rupert Wyatt, 2011)
Road to Perdition (Sam Mendes, 2002)

A Scanner Darkly (Richard Linklater, 2005)
Slm0ne (Andrew Niccol, 2002),
Snow White (David Hand, 1937)
Star Wars (George Lucas, 1977)
Star Tours (Denis Muren, 1987)
Superman (Richard Donner, 1978)
Surrogates (Jonathan Mostow, 2009)
Terminator (James Cameron, 1984)
Terminator 2: Judgment Day (James Cameron, 1991)
Time Code (Mike Figgis, 2000)
This is Cinerama (Merian C. Cooper, 1952)
Titanic (James Cameron, 1997)
Toy Story (John Lasseter, 1995)
Toy Story 2 (John Lasseter, 1999)
Toy Story 3 (John Lasseter, 2010)
TRON (Steven Lisberger, 1982)
TRON: Legacy (Joseph Kosinski, 2011)
Waking Life (Richard Linklater, 2001)
WarGames (John Badham, 1983)

Gameography

The Adventures of Tintin: The Secret of the Unicorn (Ubisoft, 2011)
Arkham Asylum (Rocksteady, 2009)
Arkham City (Rocksteady, 2011)
Assassin's Creed (Ubisoft, 2007, 2009, 2012)
Battlezone (Atari, 1980)
Beowulf: The Game (Ubisoft, 2007)
Beowulf: The Mobile Game (Gameloft, 2007)
Bioshock (Irrational, 2007)
Bioshock 2 (2K Marin, 2010)
Doom (id Software, 1993)
The Elder Scrolls III: Morrowind (Bethesda, 2002)
The Elder Scrolls IV: Oblivion (Bethesda, 2007)
The Empire Strikes Back (Parker Bros., 1982)
ET: The Extra-Terrestrial (Atari, 1983)
Fallout 3 (Bethesda, 2008)
Fantastic Four: Rise of the Silver Surfer (Visual Concepts, 2007)
Gears of War (Epic Games, 2006, 2008, 2011)
Grand Theft Auto IV: Liberty City (Rockstar Games, 2008)
Habitat (Lucasfilm, 1985)
Half-Life (Valve, 1998)
Halo (Bungie, 2001)
Harry Potter and the Deathly Hallows Pt. 1 (BrightLight, 2010)
Iron Man 2 (Sega, 2010)
Jedi Arena (Parker Bros. 1983)
The Lord of the Rings: The Two Towers (Stormfront Studios, 2002)
Myst (Cyan, 1993)
The Polar Express (Blue Tongue, 2004)
PONG (Atari, 1972)
Quake (id Software, 1996)
Raiders of the Lost Ark (Atari, 1982)
Rainbow Six: Vegas (Ubisoft, 2006)
Resident Evil 5 (Capcom, 2009)
Second Life (Linden, 2003-)
Spider-Man: The Movie (Treyarch, 2002)
Star Wars Episode One: Racer (LucasArts, 1999)
Superman (Atari, 1979)
Super Mario 3 (Nintendo, 1988)
TRON: Deadly Discs (Atari, 1982)
TRON: Evolution (Propaganda Games, 2010)
Ultima IV: Quest of the Avatar (Origin Systems, 1985)
Unreal (id Software, 1998)
Wolfenstein 3-D (id Software, 1992)
World of Warcraft (Blizzard, 2004-)