The Return of Flânerie:
Walter Benjamin and the Experience of Videogames

By

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For my father, Christopher Maughan

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Curtis Maughan
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INTRODUCTION

The most recent return of the flâneur finds Walter Benjamin's notable *Denkfigur* strolling down the pixelated passageways of simulated cityscapes. Writers who have invoked the flâneur concept in the sphere of videogames include media theorists, game studies scholars, game makers, game journalists, bloggers, media artists, and videogame players and fans.[1] These texts encompass a swath of videogames and playstyles, from aimless wandering in big-budget franchises like Rockstar's *Grand Theft Auto* (1997 – 2021) to blogs dedicated to in-game photography from smaller titles like *Proteus* (Twisted Tree, 2013). While some videogame writing reanimates Benjamin's flâneur to explore digital gameworlds, others reference the

[1] See, here, a selection of works that reference flânerie in videogame contexts: Esther Wright and Emily Marlow, eds. *Special Issue: Walking Simulators, Press Start* 5, no. 2 (2019); Ian Bogost, "It Doesn't Matter If Anyone Exists or Not," *The Atlantic,* February 24, 2000. https://www.theatlantic.com/technology/archive/2020/02/how-generate-infinite-fake-humans/606943/; Ian Bogost, *Unit Operations: An Approach to Videogame Criticism,* (Cambridge: MIT Press, 2006); Lawrence Lek, *Bonus Levels,* Ongoing art collection, *Sedition Art, https://www.seditionart.com/lawrence-lek/collection/bonus-levels;* Shawn Graham, "The Archaeologist Who Studied Video Games, And The Things He Learned There," *The SAA Archaeological record* 16, no. 5 (2016):16-8; Bonnie Ruberg, "Straight Paths Through Queer Walking Simulators: Wandering on Rails and Speedrunning in *Gone Home,*" *Games and Culture* 15, no. 6 (2019):632-52; Maren Hartmann, *Technologies and Utopias: The cyberflaneur and the experience of 'being online,'* (Munich: Verlag Reinhard Fischer, 2004); Chantelle Bayes, "The Cyborg Flâneur: Reimagining Urban Nature through the Act of Walking," *M/C Journal* 21, no.4 (2018), doi: https://doi.org/10.5204/mcj.1444; Nicholas Korody, "No, Pokémon Go is not an urban fantasy for the new flaneur," *Archinect News,* July 14, 2016, https://archinect.com/news/article/149957911/no-pok-mon-go-is-not-an-urban-fantasy-for-the-new-flaneur; Aleksandra Djukic, Thanos Vlastos, and Viera Joklova, "Liveable Open Public Space- From Flaneur to Cyborg," in *Cyber Parks- The Interface Between People, Places and Technology: New Approaches and Perspectives,* ed. Carlos Smaniotto Costa, Ina Šuklje Erjavec, Therese Kenna, et. al., (Cham: Springer Open, 2019):38-49; Ross Smith, "The Digital Flaneur," *RSA Blog,* August 26, 2019, https://www.thersa.org/blog/2019/08/the-digital-flaneur; Jesper Juul, "The Aesthetics of the Aesthetics of the Aesthetics of Video Games: Walking Simulators as Response to the Problem of Optimization," *12th International Conference on the Philosophy of Computer Games,* Copenhagen, August 13-15, 2018, https://www.jesperjuul.net/text/aesthetics3/; Jack Gann, "Walking in the Virtual City: Assassin's Creed and the Armchair Flâneur," *Leeds Centre for Victorian Studies Blog,* December 10, 2015, http://www.leedstrinity.ac.uk/blogs/leeds-centre-for-victorian-studies/walking-in-the-virutal-city-assassins-creed-and-the-armchair-fl%C3%A2neur; Tom Van Nuenen, "Touring the Animus: *Assassin's Creed* and the Ludotopical Movement," *Journal of the Canadian Game Studies Association* 10 (2017):22-39; Conor McGarrigle, "Forget the Flâneur, *"Proceedings of the 19th International Symposium of Electronic Art* (2013):1-4.

figure to argue that it is out of style, or to suggest that it should be forgotten, or to announce the figure's death. But the flâneur persists. In her 2016 work entitled *Flâneuse*, Lauren Elkin writes with and against the flâneur in order to create the space for its female counterpart, and in so doing, Elkin offers an explanation for the figure's staying power that can be applied to the phenomenon in gaming culture:

> Both surveyor and surveyed, the flâneur is a beguiling but empty vessel, a blank canvas onto which different eras have projected their own desires and anxieties. He appears when and how we want him to. There are many contradictions built into the idea of the flâneur, though we may not realise it when we talk about him. We think we know what we mean, but we don't.[2]

Elkin's claim of the flâneur's conceptual malleability is well-supported by the plethora of texts that revive, rewrite, remediate, and remix the figure within the realm of videogames, not to mention elsewhere. Yet amidst all this variety, patterns emerge: aimless strolling; urban environments; and intersubjective observation. With *pace*, *place*, and *perception* as overarching thematic points of focus, the following study will map out digital flânerie as it appears across several points of tension, each of which explores a fundamental issue within contemporary gaming culture while revealing—and interrogating—a central aspect of Benjamin's thought. In light of the many returns of the flâneur, this study also seeks to explain flânerie's prevalence in gaming culture by contextualizing it within the much broader resonance between Benjamin's writing and videogames—more specifically, trends in player behavior and game design, and fundamental issues of game studies scholarship. Just as the flâneur opens new potentialities for

[2] Lauren Elkin, *Flâneuse: Women Walk the City in Paris, New York, Tokyo, Venice and London*, (New York: Farrar, Straus and Giroux, 2016): 10-11.

exploring videogames, concepts from game design and game studies revitalize Benjamin's ideas and theories—giving them a second life in the interactive, haptic spaces of gameworlds.

Structure

The first chapter of this study, "Digital Flanerie," engages with two illustrative and contrasting examples of writers who reference Benjamin's flânerie concept. Osvaldo Cleger's text, "The Latin American Flâneur in the Digital Age," employs the flâneur as a guide for contemporary game designers. To distill lessons for the digital age from analog materials, Cleger formulates flânerie as a series of processes that play out between the flâneur and his audience. With analog flâneur art in mind, game designers—according to Cleger—are tasked with nudging the player into strolling instead of sprinting; players should be encouraged to observe and ponder the gameworld rather than scramble to complete missions. Written in the late 1990s, Lev Manovich's text "Navigable Spaces" evokes multiple iterations of the flâneur in order to theorize the potentialities of player/user engagement with virtual space: one flâneur figure is contrasted with the explorer in a broader examination of exteriority and interiority in literary and digital worlds; another flâneur embodies the online navigational behaviors exhibited by citizens of the digital age, who peruse data streams instead of the Parisian arcades. It is through Benjamin's flâneur that Manovich seeks to establish a "poetics of navigation"—a complementary theory to his overarching aesthetics of navigable space.

As Cleger and Manovich effectively apply the flâneur concept to videogame phenomena, they simultaneously demonstrate the benefits of bringing Benjamin into contact with videogames and other digital media. Indeed, both texts embody the videogame-oriented

engagement with the flâneur figure that plays out on the pages of this study. Yet Cleger and Manovich's writing would benefit from a more nuanced—and rigorous—exploration of Benjamin's ideas on flânerie. Cleger's text would benefit from Benjamin's emphasis on the processes of learning to see anew—processes that shape and blend his writing on flânerie and film. For its focus on embodied perception, Benjamin's writing could be utilized to place the perceptual-parkour of the *Assassin's Creed* series as part of a lineage of pedestrian performances—including Situationist drift and contemporary walking projects—that reimagine the city by exploring previously unseen navigational and perspectival pathways. Manovich's text would benefit from Benjamin's framing of surveillance and flânerie as interwoven and inevitable byproducts of the participatory reception demanded by haptic media, from cinematic montage to algorithmic storytelling. Indeed, by engaging more thoroughly with Benjamin's theories, Manovich's "poetics of navigation" would account for the gazes—both of flânerie and surveillance—that so sharply influence how we approach all spaces of surveillance society, including the crowded sidewalks of open world games.

The second chapter, "The Avatar: Walter Benjamin and Game Studies," makes the case for the significance of the bodily element of the flâneur image, stressing that the figure possesses value beyond its abstract iconicity. Indeed, this chapter exposes the pedagogical value that Benjamin places on bodily imagery in his writing, and in so doing, it buttresses the extant connections between his texts on flânerie and his texts on film. Benjamin theorizes developments in perception through an avatarial framework: a series of figures—the *Begutachter* (evaluator), the surgeon, the psychoanalyst, the flâneur, and the *Examinator* (examiner)—that embody the developmental trajectory of human perceptual faculties in the

media ecology of modernity, which encompasses everything from the news reels at the movie theater to the neon signs of the city streets. Benjamin's avatars symbolize the potential for symbiosis between the *Publikum* (human audiences and actors, human perception) and the *Apparatur* (modern technology and its associated practices)—the generative duality at the heart of Benjamin's media ecology. Emerging from the (perceptual) tension between humanity and technology, Benjamin's avatars constitute a cyborgian potentiality that reflects the hybridity of the flâneur—the avatar of modern perception who occupies the liminal spaces that disrupt the dichotomies of interiority and exteriority; of watching and being watched; of sedentary viewership and the mobilized gaze.

Organizing the artwork essay through an avatarial framework, the second chapter applies games studies scholarship on the avatar—that of Rune Klevjer, Brendan Keogh, and Frank Fetzer, among others—to Benjamin's writing, and vice versa. By demonstrating the corporeality of perceptual phenomena, Benjamin's avatars anticipate the play of cameras and bodies that characterized the advent of 3D virtual spaces in the mid-1990s. Just as Benjamin's avatars map out the pathways of cinematic reception, the avatars of *Super Mario 64*—Mario and the Lakitu camera—guide the player through the process of learning to see through *dual control*, the persistent and synchronized manipulation of the game camera and the avatar body. As haptic feedback loops meld eyes and thumbs with controller and screen, players of *Super Mario 64*—and subsequent open world games—step into the role of the digital Begutachter, as the symbiosis of the *Publikum* and the *Apparatur* emerges in the navigable spaces of videogames. As the player takes control of the camera—embodied by the Lakitu avatar—, the act of watching is enhanced with the haptic power of walking. By collapsing navigation and

perception into one another, dual control sets the stage for the digital flânerie that has come to characterize open world gameplay. The image of the Lakitu camera forever trained on the Mario avatar imbues this chapter with the embodied watchfulness that links Benjamin's writing on flânerie and film to the haptic game mechanics of open worlds—as well as the interactive systems of digital surveillance.

The third and final chapter, "From the Window to the *Watch_Dog*: Walter Benjamin, Surveillance, and Flânerie," complicates the avatar's claim on embodied perception by exploring the sensorial volatility of interfaces, from windows in the works of Edgar Allan Poe and E.T.A. Hoffmann to the surveillant screens of *Watch_Dogs 2* (*WD2*). Forming yet another bridge between Benjamin's writing on film and his writing on the flâneur, Benjamin's "Baudelaire" essays trace the shared history of surveillance and flânerie as entwined modes of perception emanating from the interplay between the masses and modern haptic interfaces. Benjamin theorizes cinematic reception as inherently participatory, as cinematic production and dissemination processes blur the boundaries between movie-goer, passer-by, and movie subject. For Benjamin, the emancipatory power of the cinema—its unique ability to eradicate the divide between author and public—is also the source of its surveillant potential, namely, its unique ability to capture the human trace. The movie screen's contrasting potentialities—as it teeters between surveillance mechanism and tool of liberation—mirror the broader cyborgian tension between the *Publikum* and *Apparatur*, as outlined in chapter two. Ultimately Benjamin's concept of cinematic reception depicts a modern media ecology characterized by volatile hybridity: just as the camera brings the death of anonymity, it also births a participatory and politicized work of art.

By portraying surveillance and flânerie as entangled modes of modern perception, Benjamin anticipates the continual trade-offs indicative of contemporary digital media—trade-offs that constitute the everyday experience of surveillance society. As Benjamin depicts surveillant gazes as inseparable from the human perceptual apparatus, he can be pulled into conversation with contemporary surveillance studies scholar Jonathan Finn, whose concept of *seeing surveillantly* shares the bodily emphasis of Benjamin's flânerie-surveillance model. Benjamin's coupling of surveillance and flânerie, as well as his coupling of embodied and participatory perception, provides the ideal lens through which to read the significance of Ubisoft's *Watch_Dogs* series—an open world franchise known for exploring digital surveillance while popularizing and innovating forms of digital flânerie. This chapter concludes with a close-reading of *WD2*'s central game mechanic, the *camera hack*, which employs a multitude of surveillant interfaces to deconstruct *dual control*—the default controller schema for *WD2* and most open world games. By exploding the haptic bonds formed between the player and the avatar, the surveillant interfaces of *WD2*'s camera hack push the player toward a novel perceptual paradigm; the player is forced to balance an avatar-oriented perspective with that of the (surveillance) network—a lone point of view is complicated by a multiplicity of perspectives. This chapter's analysis of *WD2* draws from an exclusive interview with Thomas Geffroyd—the Brand Manager of the *Watch_Dogs* franchise—, who provides insight into the delicate balance between designer strategies, medium affordances, and player agency that leads to digital flânerie.

Chapter two establishes a conceptual arc that begins with the bodily dimensions of *Super Mario 64*'s avatars and concludes in chapter three, as the singularity of the avatarial

vantage point is splintered and refracted through the multitude of perspectives that constitute the (surveillance) network. Benjamin's notable emphasis on the tactile layers of human perception makes his writing uniquely apt for theorizing the perspectival leap from dual control to the camera hack, from the mid-nineties Mario to the twenty-first century *Watch_Dog.* Adopting Benjamin's focus on the embodied registers of learning to see through media, chapters two and three ground the social, cultural, and political implications of videogames in the close analysis of the haptic gameplay loops that confront players with the inner logic of everyday life in the digital age. Indeed, Benjamin's framing of the cinema as a training ground for modern experience looms large over the spaces of digital culture where the same technologies and strategies that animate open world games also power the interactive infrastructure of surveillance society. Chapters two and three contend that Benjamin's most crucial claims about the entwined nature of perception and surveillance draw their critical poignancy from the psychological and sociological theorizing that undergirds—and unifies—his writing on the cinema and the metropolis, on film and flânerie. To emphasize the bodily elements of Benjamin's writing—from the visceral imagery of his avatarial framework to the sensorial volatility of modern screens—is to illuminate and reinforce the critical goals of his project while framing his work to best engage with present day digital technology that thrives on 'gaming' human perception. At the intersection of media theory, psychology, sociology, and neuroscience, Benjamin's writing on film and flânerie is uniquely positioned to assess the broader political impact of videogames during a time when the lessons of game design have been enlisted to serve a variety of purposes in and beyond videogame worlds, from shaping consumer habits to influencing elections. By emphasizing the embodied perceptual elements in

Benjamin's work, this study reinforces the socio-political ends of Benjaminian critical theory while offering a unique reading of his work through the lens of game studies.

The trajectory of chapters two and three—a trajectory of avatars and interfaces, and flânerie and surveillance—shades the case studies of chapter one. By comparing Cleger and Manovich's flâneur scholarship with the Benjaminian readings of dual control and the camera hack, chapter one seeks to open a multiplicity of pathways to further projects. As the chapter unfolds, a series of potential avenues of inquiry emerge, two of which stand out: the first, flânerie and parkour's shared lineage as performative modes of urban exploration; the second, the tension formed between the walking simulator and the open world game—two forms of aimless wandering that mark the course of contemporary gaming culture. Though either of these topics warrant a study of their own, they are mentioned here specifically to complement the issues taken up in chapters two and three. Undoubtedly the intersection of Benjamin's scholarship and contemporary game research constitutes a fruitful, and largely unexplored, space of intellectual potential—a space this study seeks to navigate.

CHAPTER 1

DIGITAL FLÂNERIE

Introduction

This chapter responds to the breadth of flânerie-inspired videogame writing through the close analysis of two illustrative and contrasting examples. These texts—"The Latin American Flâneur in the Digital Age" by Osvaldo Cleger and "Navigable Spaces" by Lev Manovich—demonstrate how Benjamin's writing on flânerie can be applied to videogames, and in turn, demonstrate how such an application can push Benjamin's writing in new directions. This chapter will also suggest additional applications of Benjamin's ideas that enhance Cleger and Manovich's work in particular, as well as the broader spectrum of videogame-oriented texts that reference Benjamin's flâneur. The suggestions offered here take into account the full range of Benjamin's writing on flânerie while stressing the synchronicity between Benjamin's writing on the flâneur, cinematic production and reception, and the developments of human perception that define, and are defined by, modern life. At this intersection of flânerie, film, and perception, Benjamin establishes a framework for the embodied process of learning to see anew—a process of pivotal significance for theories of the videogame avatar. In the context of haptic optics, Benjamin establishes the origins of participatory media through the shared history of flanerie and surveillance; a dichotomy that explores the relationship between bodies, gazes, and navigable spaces. By bringing Benjamin's lessons on the avatar and surveillance into conversation with Cleger and Manovich, this chapter demonstrates the relevance of Benjamin's

flânerie for discussions of the videogame medium, bridging long-standing and present day debates. While the flâneur has certainly returned, the full potential of this concept has not yet been realized—particularly when it comes to the figure's place within the extensive media-theoretical writing of Walter Benjamin.

The first text of the subsequent analysis, Osvaldo Cleger's chapter entitled "The Latin American Flâneur in the Digital Age," points to the central tension between the figure of the flâneur and the act of flânerie; a tension that has as much to say about the challenges of using Benjamin's figure as it does about the concept itself. This dynamic speaks to Cleger's broader trajectory, which aims to translate analog flânerie into the procedural language of game design. In light of Cleger's design-oriented approach, the following analysis draws upon Benjamin's work on the haptic registers of perception, where the flâneur's audience—along with the film audience—learns to see anew. The embodied element in Benjamin's flânerie—and how it relates to his writing on film—would be a crucial addition not only to Cleger's research, but to all videogame scholarship that overlooks the flâneur's significance to Benjamin's media-theoretical writing, and vice versa. The second text, Lev Manovich's 1998 article entitled "Navigable Space," stresses the tension between flânerie and its environs, exploring what one says about the other, and the agency in the act of flânerie. As Manovich emphasizes the prevalence of 3D virtual space, he invokes the flâneur to explore the behavioral potentialities of those who move through the navigable spaces of the digital age. Outlining the generative capabilities of (virtual) space, Manovich lays the theoretical groundwork for contextualizing the eventual rise of the open world game as an industry leader and the habitat of digital flânerie. While "Navigable Spaces" rightfully situates the emergence of the flâneur amidst the anonymity

inherent to the modern masses, the article overlooks the critical dichotomy of flânerie and surveillance within Benjamin's writing on the virtual—and participatory—gazes of modernity. By bringing Cleger and Manovich into deeper conversation with Benjamin, this chapter maps out the pathways of digital flânerie—pathways which lead back to Benjamin while pushing us toward the future of gaming culture.

Two decades separate the publication of Manovich's "Navigable Spaces" and Cleger's "Latin Flâneur." Whereas Manovich assesses ground-breaking 3D games of the mid-1990s in order to prognosticate the myriad potentialities of virtual spaces to come, Cleger analyzes contemporary open world franchises of the 2010s that showcase the ability to convert real world cities into the navigable spaces of videogames. While Cleger's conceptualization of the flânerie is grounded in Baudelaire's writing with passing reference to Benjamin, Manovich deals directly with Benjamin's writing and the scholarship it has inspired. Both Manovich and Cleger speak to the iconicity of Benjamin's flaneur figure while bending its conceptual contours to fit their research goals. The appeal of Benjamin's concept, and the source of its staying power, lies in this combination of recognizability and malleability, which enables a range of writers to work with the figure or against it, by breaking it down or building it out. Of course this conceptual hybridity is no doubt a reflection of Benjamin's own writing on the flâneur, which defies the strictures of a set definition as it develops over the course of Benjamin's engagement with the figure. Imbued with an overarching sense of hybridity, Benjamin's writing on flânerie begins with his essay "The Return of the Flâneur," in which he looks back to the nineteenth century to announce the October 1929 publication of *Spazieren in Berlin*, written by Benjamin's close

friend and contemporary, Franz Hessel—Benjamin's first guide to experiencing the city as a flâneur.

The temporal hybridity of the flâneur—which Benjamin introduces by proclaiming it has returned—extends into the intermittent nature with which Benjamin continues the project; further publications appear in 1935, 1938, and 1939, accompanied by projects left unfinished at the time of Benjamin's death. Much of Benjamin's flâneur scholarship was colored by his relationship with Franz Hessel. A professional flâneur, Hessel taught Benjamin the art of taking a walk, as the two botanized the asphalt in Paris and Berlin together. Benjamin also documented his peripatetic experiences of city life in Naples, Marseille, and Moscow—the temporal span of the project was matched by its geospatial scope. Throughout these texts, Benjamin cites a plethora of writers, artists, architects, poets, journalists, and historians whose works entail various styles, genres, and media. As varied as the sources he references, Benjamin's writerly approaches to flânerie are wide-ranging, from essay ("The Return of the Flâneur") to autobiographical snapshot (*A Berlin Childhood around 1900*) to aphorism (*One-Way Street*) to drug-experimentation protocol ("Hashish in Marseille") to experimental historical-reference system (*Arcades Project*)—Benjamin's writing on the flâneur is most sharply characterized by its genre-hybridity. Within this inter-genre engagement, Benjamin's flâneur is flanked by an extensive cast of characters—symbols of modern experience: the dandy, the ragpicker, the sandwichman, the prostitute, the detective, and the collector, among others. Yet of all these figures, the flâneur plays the unique role as the conduit between Benjamin's writing on film and his writing on the metropolis. Benjamin equipped the flâneur with a perceptual

hybridity that connects the gazes framed by movie screens with the glances shared by anonymous passers-by on city streets.

Despite the conceptual scope and hybridity of his flâneur oeuvre, Benjamin's initial text, "The Return of the Flâneur," sets the tone for his writing to come. Indeed, "The Return" maps out the points of focus that extend into most—if not all—of his subsequent writing on flânerie: a sensitivity to seeing and being seen; the flâneur's invitation to (learn to) see anew; the symbiotic relationship between the city and the flâneur (and in turn, the masses); the haptic, embodied parameters of perception and navigation; the preoccupation with the liminal spaces of the city, spaces that challenge common notions of interiority and exteriority. These themes, as they appear in "The Return," provide the parameters for the following analysis of Cleger and Manovich's flânerie-texts; direct references to Benjamin's writing will both support and challenge the ways in which these authors employ the flâneur concept in their explorations of digital flânerie. The flâneur concepts discussed here will then reemerge over the course of the following two chapters of this study, as the selection of Benjamin's writing deepens and the analytic scope of the study sharpens.

Digital Flânerie and Open World Games

Osvaldo Cleger's chapter begins by drawing a distinction between "the construction of the image of the virtual flâneur" and "the digitally enabled experience of flânerie."[3] The wording here is crucial, as Cleger takes into account the (intellectual) historicity of the flâneur

[3] Osvaldo Cleger, "The Latin American Flâneur in the Digital Age," in *The Routledge Companion to Gender, Sex, and Latin American Culture,* ed. Luis Aldama Frederick, (London: Routledge, 2018): 31-45, at 31.

concept and accordingly directs the focus of his study at "the construction of the image" of the figure—a consideration that addresses the hybridity of this figure from the outset. Cleger's framing of flânerie is equally noteworthy. Demonstrating his preoccupation with adapting processes of reader reception to the videogame medium, Cleger addresses the "digitally enabled experience of flânerie," which he illuminates by analyzing digital practices while offering design potentialities. As he oscillates between the rigidity of the flâneur figure and the dynamism of the act of flânerie, Cleger also conceptualizes computational flâneur art, which hovers between authorial control and player agency.[4] Extending his study's overarching sense of hybridity, Cleger grounds his study in the comparison of a pair of contrasting interactive digital media artifacts—*Caminando Bogotá* (Universidad Javeriana, 2007), a university-funded, "web-based application," and, *Assassin's Creed IV: Black Flag* (2013), an open world videogame developed by game industry giant Ubisoft. As Cleger analyzes these two digital works, he frames his perspective with the work of Baudelaire—as well as references to Benjamin, Poe, and Latin American flâneur-artists, thus revealing the ways in which the digital turn impacts the theory, art, and scholarship of analog flânerie. While making (analog) flânerie accessible to digital artists, Cleger applies a procedural thought process back onto the writing of Baudelaire and others—a novel approach that demonstrates the interpretive and creative capabilities of a game design perspective.

By approaching the concepts of the flâneur and flânerie with an eye toward digital practice, Cleger attempts to distill workable lessons from the historicity and conceptual complexities emanating from analog flâneur art and scholarship, while paying special attention

[4] *Ibid.*, 32.

to the lineage of Latin American artists—from writers like Manuel de Zequeira y Arango to filmmakers like Tomás Gutiérrez Alea.[5] Cleger depicts (Baudelaire's) flânerie as a series of *processes* in order to translate analog modes of art into a language befitting the algorithmic systems of digital media. Of these processes, Cleger highlights the reception process that unfolds between the consumer and producer of flâneur-art:

> Through a mental process of reverse engineering, the viewer/reader must be able to retrace the path that led from the physical stroll to the artistic work, in order to mentally reconstruct the experiential encounter that lies at the origin of all the communicative and artistic process, that is, the flânerie. In fact, for the ideal flâneur-reader it is usually not enough to just read or view the literary or artistic product. The act of reading/viewing is often followed or accompanied by the physical – geolocated – experience of the stroll through those same coordinates and points of interest that the work recreates; which allows the viewer to indulge in the intellectual exercise of contrasting the artistic text with the "urban text."[6]

Due to its "geolocated" and experiential essence, flânerie—according to Cleger—demands an audience reaction that mentally, and perhaps physically, retraces the artist's stroll. Cleger's assertion would be well-supported by Benjamin's flâneur-work, which foregrounds the *process* of learning to see anew—a process that begins with an invitation from the artist. In "Return," Benjamin draws attention to the second chapter of Hessel's *Spazieren in Berlin*—entitled "I am learning"— for its emphasis on the experiential and habitual elements of "learning" the flâneur's lessons. Indeed, Benjamin closes his review of *Spazieren* by emphasizing Hessel's invitation to walk and perceive the city like the flâneur: "And if a Berliner is willing to explore his city for any treasures other than neon advertisements, he will grow to love this book."[7] *Spazieren*'s pedagogical invitation echoes throughout the flâneur-texts that line the pages of

[5] *Ibid.*, 34.
[6] *Ibid.*, 31.
[7] Benjamin, "Return," 266.

Benjamin's writing: in "The Man of the Crowd," Poe's unnamed narrator explicates his tactics for assessing the crowds, before demonstrating the allure of their haptic frenzy; in "The Painter of Modern Life," Baudelaire delineates the methods through which Constantin Guys was able to "distill the eternal from the transitory" in his vignettes; and in "My Cousin's Corner Window," E.T.A. Hoffmann choreographs a dialogue that unveils the mechanics and benefits of two dialectical modes of perceiving the metropolis. Drawing from these examples, Benjamin links the optic lessons of the flâneur to the perceptual training of the cinema, thus demonstrating a broader paradigm shift in modern visuality—one with a sensitivity to the haptic and participatory reaches of optic perception, and one that is learned among the flow of moving images in the movie palace and amidst the bustling masses on the city streets. Referencing Benjamin's media-theoretical work could strengthen Cleger's argumentation, especially as it pertains to the audience's reaction to flânerie in art—both analog and digital. While Cleger's explanation of analog flânerie has clear utility for digital game designers and game scholars alike, his attempts to apply flânerie to game design practice could also guide scholars of flânerie generally, and of Benjamin's work in particular. Cleger's process-oriented focus on audience reception could, indeed, reorganize Benjamin's flâneur-oeuvre and beg the following questions: What might the genre-hybridity of Benjamin's flâneur-work reveal about the hybridity of the flâneur-image? And what do Benjamin's transmedial flânerie-processes of audience engagement demonstrate about Benjamin's own development as a writer-producer? With an aim to the practical ends of flânerie scholarship, Cleger pushes us to find the essence of flânerie by turning away from the figure and focusing on the process.

Open World Games and *Assassin's Creed*

In his analysis of *Assassin's Creed IV: Black Flag*, Cleger foregrounds designer control and player agency as two opposing forces that shape digital flânerie as it emerges in open world games. The latter of these—player agency—has been identified as the source of the appeal of open world games by players, journalists, and industry professionals alike. Indeed, the notion of player agency, of a world "open" to the whims of the player, has been a driver of mainstream videogame development since the wild success of *Grand Theft Auto III* in 2001. Industry leaders in game development, such as Yves Guillemont, CEO of Ubisoft (a top-five worldwide game developer) have identified both the importance of "openness" to open world games, and the open world genre to the broader game industry:

> We think that gamers want more freedom. They also want games that they can play for quite a while, because there are less games now. The open-world genre gives us the possibility to offer different gamers different types of experiences. We think they are better adapted to the diversity of gamers that are in the market at the moment. [...] We need to release open-world [games] on a regular basis. Open-world has proved to be the clear direction where game genres evolve. It began with *GTA* for the action segment, then it happened to adventure with *Assassin's Creed*; to the RPG with *Skyrim* and last year was its first major entry into FPS with *Far Cry 3*. *The Crew* showed at E3 that it can also be a big differentiator for the driving segment and excitement around *The Division* confirms how relevant it is to RPG games.[8]

Guillemont's proclamation resounds across an array of big-budget spaces in the mainstream game industry, as each has demonstrated a concerted investment in the genre, which is often met with enthusiasm from the paying public. This shared interest is best evidenced in the number of entries, if not ongoing franchises, in this genre: Rockstar's *Grand Theft Auto* (*GTA*) series has featured over ten titles from 2001 – 2021 and Ubisoft's *Assassin's Creed* franchise

[8] Eddie Makuch, "Ubisoft Making More Open-World Games Because "Gamers Want More Freedom,"" *Gamespot,* June 19, 2014, https://www.gamespot.com/articles/ubisoft-making-more-open-world-games-because-gamers-want-more-freedom/1100-6420598/.

has featured over twenty-one titles from 2007 – 2021. With the continued success of these franchises and other open world titles, the twenty-first century has seen the rise and institutionalization of the open world genre.[9] *GTA* and *Assassin's Creed* consistently construct their open worlds as simulations of metropoles, a geo-located design trend that has been emulated by a slew of other titles and franchises, including Activision's *True Crime: Streets of LA* (2003) and *True Crime: Streets of New York City* (2005), Bethesda's *Fallout 3* (Washington DC, 2008) and *Fallout 4* (Boston, 2015), Square Enix's *Sleeping Dogs* (Hong Kong, 2012), Ubisoft's *Tom Clancy's Division 1* (New York, 2016) and *Division 2* (Washington D.C., 2019), Ubisoft's *Watch_Dogs 1* (Chicago, 2014), *Watch_Dogs 2* (San Francisco, 2016) and *Watch_Dogs: Legion* (London, 2020). The durational staying power of these franchises is reflected in the extended gameplay experiences afforded by their expansive gameworlds, which can demand upwards of 220 hours to complete (let alone fully explore).[10] Since its inception, Ubisoft's *Assassin Creed* franchise has distinguished itself in this genre for the historical and geospatial accuracy of its simulated city spaces (from Greece of Antiquity to Boston of the American Revolution to London of the Industrial Age), along with narratives that hinge on historical characters (from Socrates to George Washington to Charles Darwin). *AC* has been a consistent tent-pole for the open world genre, a genre that now shapes the annual 'release and hype' calendar of the broader game industry—open world games are not just a dominant market force but also a standard-setter of the technical, cultural, and aesthetic trajectory of the gaming industry.

[9] Ryan Epps, "The Rise of Open World Games," *TheGamer Originals,* August 13, 2019, https://www.thegamer.com/rise-open-world-games/; and, and, Richard Moss, "Roam free: a history of open-world gaming," *arsTECHNICA,* March 25, 2017, https://arstechnica.com/gaming/2017/03/youre-now-free-to-move-about-vice-city-a-history-of-open-world-gaming/.

[10] Logan Sawyer, "15 Open-World Games that Take the Longest to Beat," *Gamerant,* November 10, 2019, updated September 4, 2020, https://gamerant.com/open-world-games-longest-beat/.

In line with his process-oriented, practical approach, Cleger organizes his analysis of *Assassin's Creed IV: Black Flag* around a series of design features that—in his eyes—either encourage flânerie or do not. Cleger identifies the expansive and detailed settings of *AC* as crucial for enabling flânerie, as the player is enticed to decelerate to a stroll in order to appreciate all the "close attention" the developers have paid to the gameworld's "layout, architecture, main attractions, street markets, vegetation, ambient sounds and the languages spoken by non-playable characters (NPCs)."[11] Cleger supports his assessment of the gameworld by citing the trajectory of research that engages with the player's sensation of expanse in virtual spaces and related gameplay behavior.[12] The critical value of player behavior research on open world games, as identified by Cleger, could be further supported by analog flâneur art and scholarship that is similarly preoccupied with the ways in which the city impacts human modes of perception. Benjamin's direct references to (and broader reliance on) the work of Georg Simmel would be one avenue of exploration in this regard. Moreover, Hessel's work, as cited and extended by Benjamin, interrogates the architecture of city spaces with a sensitivity to the atmospheric and experiential valence of urban strolling—research relevant to Cleger's analysis of *AC* but with potential use for level designers broadly speaking.

Moving from setting to character, Cleger singles out the writing for the *AC* avatar, Edward Kenway, a pirate-assassin who Cleger classifies as "too mission-oriented to inspire the kind of idleness that is required from a true Baudelairian flâneur."[13] Cleger's criticism of the

[11] Cleger, "Flâneur in the Digital Age," 40.
[12] Rowland Atkinson and Paul Willis, "Charting the Ludodrome: The Mediation of Urban and Simulated Space and Rise of the Flâneur Electronique," *Information, Communication & Society* 10, no. 6 (2007): 818–45.
[13] Cleger, "Flâneur in the Digital Age," 40.

Kenway avatar can be broadly applied to the narratives that so often operate in open worlds, narratives designed to help the player make sense of—and perhaps, tame—the openness of the world by imposing organizational strictures inherent to character arc or mission objectives. On the other hand, Cleger notes that several "early missions are geared to make Kenway—and by extension, the player—aware of the fact that there is a whole city with real-life landmarks, intriguing alleys and a complex crowd system open to his curiosity."[14] According to Cleger, *AC*'s earlier exploratory, flâneur-friendly missions tie into the broader game mechanic of "viewpoint synchronization," whereby the player is challenged to reach elevated vantage points (a church steeple, for example) in order to gain access to new quadrants of the city space. Cleger argues that these "synchronized" viewpoints "offer players an opportunity to indulge in the purely aesthetic contemplation of the simulation, which will bring them closer to the experience of flânerie."[15]

[14] *Ibid.*
[15] *Ibid.*

Fig. 1. 1 Assassin's Creed IV: Black Flag. The Kenway avatar reaches a "synchronized viewpoint."

Here, Cleger's argumentation would be well-supported by the sphere of Benjamin's flâneur-writing that engages with the confluence of human perception, cinematic gazes, and the perceptual shock of metropolitan settings—a research focus that unfolds in the subsequent two chapters of this study, but not in direct conversation with Ubisoft's highly-influential *AC* series. Beyond its historical lens, the *Assassin's Creed* franchise distinguishes itself from other open world titles as it demands the player develop a novel mode of perception informed by parkour/freerunning, that is, the practice of creatively traversing obstacles encountered in a spectrum of settings, but especially in cities—an "urban adventure sport."[16] *AC*'s integration of parkour has long been a trademark of the series, a point touted by the developers: "The original

[16] Lindsay N. Smith, "Parkour Can Be Dangerous—but More and More People Are Doing It," *National Geographic Digital,* October 26, 2017, https://www.nationalgeographic.com/adventure/features/parkour-urban-adventure-sport-photos/. See the *USA Parkour* website for additional information: https://www.usaparkour.org/.

Assassin's Creed was a pioneer in bringing freerunning mechanics to video games."[17] By designing gameworlds as "tactile urban environments," the *AC* design team pushes players to "re-think how they can interact with those spaces and [...] reflect freerunning's desire to rediscover and re-imagine their drab city environments."[18]

Through intuitive parkour player input and the "synchronized viewpoint" game mechanic, the *AC* player develops a novel mode of perceiving the open world that reimagines cityscapes as urban obstacle courses, thus transforming the skyline from background setting to a useful tool, one that unfolds into an unending tangle of pathways well within the player's grasp. As *AC*'s haptic control scheme and game mechanics work on the player, the street level-perspective of the city loses its utility and its imaginative appeal; the player's eyes drift more and more to the city's heights, as the view from the rooftops becomes the new standard for seeing the city. A similar notion of urban reimagining is found in Benjamin's writing on flânerie, which translates the exterior spaces of the city into the interior dwelling spaces of the flâneur, for whom:

> glossy enameled corporate nameplates are as good a wall-decoration as an oil painting is for the homebody sitting in his living room, or even better; the fire walls are their desks, the newspaper kiosk their library, letterboxes their bronze statuettes, benches their boudoir, and the cafe terrace the bay window from which they can look down on their property. Wherever asphalt workers hang their coats on iron railings, that's their hall; and the gateway that leads from the row of courtyards into the open is the entrance into the chambers of the city. [19]

[17] "Thread: Mentors Guild Community Discussion – Freerunning and Parkour," *Assassins Creed Ubisoft Forum,* July 8, 2019, https://forums.ubisoft.com/showthread.php/2085772.
[18] Andy Robertson, "Game Culture Vultures: Parkour," *Gamasutra Blog,* March 11, 2008, https://www.gamasutra.com/view/feature/131976/game_culture_vultures_parkour.php
[19] Benjamin, "Return," 264.

While the extreme athleticism of parkour leads to either hyper efficiency or creative mobility that eschew sidewalks, the measured gait of the flâneur opens up the possibility of studying the sidewalk while challenging accepted notions of interiority and exteriority. These sharply contrasting modes of pedestrian travel share the aim of diversifying physical and perceptual approaches to the city; and both modes perform the interconnectivity of navigation and perception. The shared spaces of parkour and flânerie in the *AC* series reflect back on the corresponding real world phenomena—two embodied reimaginings of the city, however divergent. As *AC*'s assassin affords both free-running and strolling, the parkour performance—as illustrated in the subsequent passage on a 2016 "Xtreme Team Parkour" event—collapses many of the above-mentioned concepts into one experience: the invitation to participate, the tension between (designer) control and (participant) agency, and the appropriation and reimagining of city space. In this way, the parkour performance shares interests with Benjamin's flânerie, Guy DeBord-Situationist drifting, and more programmatic contemporary walking projects (such as the "Surveillance Camera Players"), thus demonstrating real world parallels to *AC*'s confluence of parkour and flânerie.

Throughout the afternoon and evening of 21 March 2016 in Brussels, the parkour collective "Xtreme Team Parkour" held an interactive performance that moved between live demonstration, screened sequences of first-person headcam footage, and participatory navigation of the Place de la Bourse at the city center. At the start of the performance, the former Stock Exchange building was covered in red caution tape, and several sectors of space directly surrounding the building were cordoned off with the same red tape. Parkour performers (tracers), dressed in black, began scaling the building and, as crowds started to

amass, the tracers motioned the spectators to follow as the tracers climbed along the side of the Stock Exchange. Sideling along an elevated lip of the neoclassical structure and removing red tape as they progressed, the tracers guided the crowds (through demonstration and gesticulation) to tear through the red tape that was blocking the street-level pathway forward, allowing the procession to advance to the next section. At times, the crowds were encouraged to walk, at times, they were urged to sprint. In each freshly 'unlocked' section of space surrounding the Stock Exchange, the parkour collective put on a brief demonstration while the audience filled in the surrounding area; the separation between tracers and participants narrowed as the performance progressed. Similarly, the audience-participants grew more and more brazen in their appropriation of city space, as they eventually started climbing onto the Stock Exchange building and into fenced-off areas to gain a better view of the performances and to keep pace with the tracers.

Once the performers and participants reached the front of the Stock Exchange, video footage of parkour was projected onto a massive screen positioned fifty yards into the plaza facing the audience. The video featured a continuous stream of a parkour expert sprinting over, and leaping between, the rooftops of Brussels, as a fellow tracer followed close behind, filming the sequence from a headcam. The perspective of the video—and of parkour performance videos generally—bears a striking resemblance to the third-person perspective in the *Assassin's Creed* series. As the video came to an end, it became clear that the performer on screen was making their way to the Place de la Bourse. Once the on-screen tracer reached the high-rise located across the plaza, the screen went blank, and a spotlight was focused on a parkour performer standing on the highest, outermost edge of the building, the exact spot where the

video performer was last filmed: the video and the live performance synchronized. As the performer slowly bowed, the crowd gasped, shrieked and cheered, and the spotlight went out, thus signaling the performance had come to an end. In the following hours, the space around the Place de la Bourse was littered with those who had witnessed, and participated in, the performance, many of whom were now unafraid to clamber up to the ledges of the Stock Exchange or to sit atop the metallic overhang of the entryway to the metro station adjacent to the building—spaces that were empty and appeared off-limits hours earlier.

Fig. 1. 2. Xtreme Team Parkour tracers hold a brief demonstration in a newly 'unlocked' sector along the Stock Exchange.

Fig. 1. 3. The audience-participants document the Xtreme Team Parkour demonstration.

Fig. 1. 4. A crowd of participants follow the tracers to the front of the Stock Exchange building.

Fig. 1. 5. Parkour footage plays on the screen facing the Stock Exchange building.

Fig. 1. 6. A spotlight shines on the tracer before they take their bow.

"Xtreme Team Parkour" performances oscillate from spectacle, to participatory happening, to cinematic screening. The crowds that gathered for the "Xtreme" performance in Brussels drifted through a series of interrelated perspectives; they were spectators of extreme sport; participants in an interactive performance; audience members of a video screening; and amateur documentarians of an unconventional urban experience. The audience was not, however, uniform in their approach to this event. Whereas some mimicked the performers to the extreme of scaling (or attempting to scale) the Stock Exchange, others were content with hanging back and observing, camera in hand. Like players of *Assassin's Creed*, the participants in "Xtreme Team" events are engaged in an active and embodied remapping of the city. The

moment the audience recognized the building on the other end of the plaza through the screen space that had mobilized their gaze was a moment of embodied and virtual perspectival convergence—akin to the remapping of simulated city spaces achieved through *AC*'s "viewpoint synchronization" game mechanic and the controller's haptic feedback.

By underplaying the parkour element of *Assassin's Creed IV*, Cleger misses the opportunity to draw on flâneur-writing that explores the haptic register of metropolitan gazes in texts from Poe and Baudelaire to Hessel and Benjamin. Benjamin's writing in particular bridges the mediated reception in the movie palace to the glances exchanged amidst the collisions and shocks of the urban masses. While this study applies Benjamin's examination of haptic optics to the control schemas and game mechanics of *Super Mario 64* (Nintendo, 1996) and *Watch_Dogs 2* (Ubisoft, 2016) in the subsequent two chapters, the visuality of flânerie could also be useful for examining the *AC* franchise. In these games, players are pushed to conflate the visceral enactment of parkour—enhanced through haptic feedback in the controller—with a myriad of rooftop city views. Through constant nudging from the designers, the *AC* player learns to embrace the infinite malleability of perspectives in digital spaces—a perspectival lesson that buttresses the provocative historical counterfactuals presented in the game's broader storytelling trajectory. Though Cleger bypasses a deeper conversation of parkour and flânerie, he does give attention to a fundamental design characteristic that differentiates *AC* from its industry competitor, *GTA*—the absence of automobiles. Cleger notes:

> In *GTA* the pace of gameplay is much faster and therefore the likelihood that players will pay attention to very small details of the simulation while roaming around is slimmer. *AC*, on the other hand, puts the emphasis precisely in those small details expecting that players will notice them: the way vines climb up the wall of an old building; the casual dialogue between NPCs on a street corner; the refraction of the light piercing the stained-glass windows of a church. All this,

> together with the fact that *AC* developers strive to create replicas of real-life cities and not just allegorical representations, enables the possibility for virtual flânerie in Ubisoft's Havana.[20]

Once again, Cleger emphasizes the utility of a specific design decision on the potentiality of digital flânerie. In this case, the absence of speedy travel increases the player's likelihood of slowing to the pace of a digital flâneur, allowing for a careful study of the gameworld. The above passage is particularly helpful in distilling two related pillars of digital flânerie, as identified by Cleger and others—the pace of play and the design of the gameworld. The design of both the pacing and the gameworld, as argued by Cleger, contribute directly to the "tension between action-driven gameplay and the need to get some release from that action," out of which flânerie emerges.[21] Ultimately Cleger's dual emphasis on the geolocated essence of flânerie and the weight of designer control is valuable for not only identifying echoes of Baudelaire and Benjamin in the digital age, but also for distilling the processes and systems at the core of pre-digital flânerie.

Of course the possibility for highway chases in *GTA* does not prevent players from moving through the digital cityscapes of Rockstar's famed franchise at the speed of a flâneur. Using a modified version of *Grand Theft Auto V* (2016), artist Brent Watanabe released *The San Andreas Community Cam*. Here, the description of the *Community Cam* as it appears on the artist's website:

> The mod follows the citizens of San Andreas, a fictional state in *GTA V* based on California. The citizens are programmed to control themselves and make their own decisions, with no one actually playing the game. The citizens are 'playing themselves', with all activity unscripted.[22]

[20] Cleger, "Flâneur in the Digital Age," 41.
[21] *Ibid*.
[22] *The Official San Andreas Community Cam*, Live stream video, accessed May 25, 2017, http://sanandreascommunitycams.com

In Watanabe's modified version of *GTA V*, the camera floats from one Non-Playable Character (NPC) to the next. The central avatar is absent; the central storyline is absent. Rather, the essence of the experience is the drifting eye of the camera and the sporadic observation of the digital crowds. *The San Andreas Community Cam* cannot be played, rather it must be watched as a 24/7 livestream on Twitch, the gaming-oriented video streaming service. Further curating this rendition of *GTA V*, Watanabe recalibrated the audio track so that the itinerant camera's subjects are accompanied by the sounds of people sobbing. Watanabe launched the livestream on Inauguration Day, January, 20, 2017.

Fig. 1. 7. Citizens of San Andreas interact with one another, collide with buildings.

Fig. 1. 8. The Community Cam swings and swivels based on its proximity to the subject.

While Watanabe's *Community Cam* exists somewhere between video art and videogame, it represents the broader spirit of player behavior identified as "transgressive play" by game studies scholar Espen Aarseth.[23] A response to the "set of expectations that the player must fulfill" for the game to "exercise its effect," transgressive play—however marginal—is crucial to the player's experience, according to Aarseth. He argues that going against the designer's intention "is a symbolic gesture of rebellion against the tyranny of the game, a (perhaps illusory) way for the played subject to regain their sense of identity and uniqueness through the mechanisms of the game itself."[24] Those who stroll down the streets of *GTA V* when the game insists that they hijack a car and speed away—that is, players who play against the grain—are

[23] Espen Aarseth, "I Fought the Law: Transgressive Play and The Implied Player," *Situated Play: Proceedings of DiGRA Conference* (2007): 130-33.
[24] *Ibid.,* 132.

not accounted for in Cleger's model of designer decision-making and implied player reaction. Whereas Cleger focuses on the design strategies specific to open world games, Manovich writes more broadly about virtual worlds and the many ways in which those worlds might be traversed. In this context, Manovich calls on Benjamin's flâneur to explore the multitude of pathways the player might take—regardless of what has been planned out for them by the game designer.

Digital Flânerie and Navigable Spaces

Though Lev Manovich begins his 1998 essay "Navigable Spaces" by juxtaposing two videogames—*Doom* and *Myst*—, he quickly broadens his analytic lens to encompass the far reaches of digital culture: "From scientific visualization to walk-throughs of architectural designs, from models of a stock market performance to statistical datasets, the 3-D virtual space combined with a camera model is the accepted way to visualize all information. It is as accepted in computer culture as charts and graphs were in a print culture."[25] For Manovich, videogame worlds are indicative of a new media aesthetic reflecting the "key feature" of all digital space: navigability. In many respects, Manovich follows a similar line of thought as pursued in Benjamin's writing on film and flânerie, where aesthetic reception and production are examined in order to expose broader perspectival paradigm changes. An observer who navigates spaces both real and virtual, Benjamin's flâneur plays a critical role in "Navigable Spaces," as Manovich seeks a conceptual framework not only for 3-D space, but also for how

[25] Lev Manovich, "Navigable Space," *manovich.net* (1998): 1-40, at 5, http://manovich.net/content/04-projects/021-navigable-space/18_article_1998.pdf. This 1998 essay, which appears on Manovich's personal website, is related to his later book *The Language of New Media,* (Cambridge: MIT Press, 2002), particularly Chapter 5: "The Forms," 212-286. I have chosen to refer to the 1998 essay, as it focuses more on navigation and less on narrative than the later book chapter.

these spaces are traversed. In this respect, Manovich calls on Benjamin's flâneur to reveal a "poetics of navigation."[26]

Manovich tests two frameworks of flânerie within his conceptualization of navigable spaces. In his first effort to bring the flâneur to the digital age, Manovich juxtaposes the perspectival position of the flâneur with that of the explorer. The former is forged in the intersubjectivity of metropolitan crowds of the metropolis, the latter in the "the conflicts between subject and nature, and between the subject and his enemies" in the American wild.[27] In this respect, Manovich draws attention to a critical element of Benjamin's writing, that is, that the flâneur emerges from, and reflects, the anonymity of metropolitan masses—an aspect of Benjamin's flânerie that will be pursued in the third chapter of this study. Manovich frames the flâneur's attempts to immerse himself "into the anonymous crowd" as a "response to [the] historical shift" from a "close-knit community of a small-scale traditional society (Gemeinschaft)" to "an anonymous association of a modern society (Gesellschaft)."[28] Here, Manovich's emphasis on the perceptual processes that are developed in every glance and gaze shared among the urban masses—and the crowded cinemas—speaks to the role of Benjamin's flâneur within his broader assessment of the shifting modes of attention that shape modern life. Yet the flâneur – explorer dichotomy in "Navigable Spaces" underestimates the hybridity of Benjamin's urban wanderer. Manovich cites James Fenimore Cooper's novels to contrast the frontier exteriority of the explorer with the urban interiority of the flâneur; yet Benjamin's eclectic and expansive writing on flânerie also draws on the work of Cooper, and many others,

[26] Manovich, "Navigable Space," 15.
[27] *Ibid*., 26.
[28] *Ibid*., 25.

to study the nature of bodies navigating spaces—what Benjamin envisions as a metropolitan wilderness. By setting up a false dichotomy, one which Benjamin did not recognize in his own work, Manovich is unable to then apply the flâneur to the navigable spaces of videogames—a realm he leaves to the explorer. Benjamin's writing on flânerie, however, is well-suited to theorize the navigation of (avatar) bodies through (virtual) spaces; his writing engages with the embodied registers of the evolving human perceptual apparatus as it responds to the haptic images of the cinema as well as the shocks and collisions of bustling city streets. Moreover, the hybridity of Benjamin's theories collapses the explorer and flâneur categories into one another. A more 'entangled' reading would have saved Manovich from his now outdated—and bizarre—claim that the navigable spaces of video games follow the logic of "American rather than European" storytelling.[29] Just as Edgar Allan Poe—heavily cited by Benjamin—, Robert Frost, and Nathanial Hawthorne evidence the existence of an American (sometimes rural) flâneur, Rockstar's 2019 release of *Red Dead Redemption II* (set in the Western, Midwestern, and Southern United States in 1899) demonstrates a contemporary trend in open world game design that features detailed, immersive worlds that encourage measured, meditative gameplay. One illustrative example of digital flânerie in *Red Dead Redemption II* is the practice of simply observing Non-Playable Characters, as documented in a multi-volume YouTube series titled "Following NPC's in *Red Dead Redemption 2* for a Whole Day."[30] As of Nov. 5 2020, two years after Volume 1 of the series was first posted to YouTube, the video has over 1 million

[29] Manovich, "Navigable Space," 27.
[30] DefendTheHouse, "Following NPC's in Red Dead Redemption 2 for a Whole Day," *YouTube,* November 5, 2018, video, https://www.youtube.com/watch?v=MrUJJgppMn4.

views and 5,000 comments—clearly there is a mainstream interest in the intersubjective spaces of the American frontier.

Manovich's second attempt at theorizing digital flânerie follows Anne Friedberg's portrayal of the flâneur as enacting "the desire to combine perception with motion through space."[31] Taking up Friedberg's formulation of the "mobilized virtual gaze," Manovich connects the Parisian arcades to the "virtual streets, highways and planes of data" in the digital age.[32] Here, Manovich employs the flâneur to theorize navigable space as "not just a purely functional interface" but "also an expression of gratification of psychological desire; a state of being; a subject position – or rather, a subject's trajectory."[33] This trajectory, according to Manovich, ends with "the subject of information society [finding] peace in the knowledge that she can slide over endless fields of data [...]."[34] While Manovich effectively incorporates Friedberg into his theorization of perception in navigable spaces, he overlooks the importance of the embodied, haptic aspects of Benjamin's flâneur, which are addressed by Friedberg—particularly in relation to the interwoven acts of navigating and perceiving spaces, both real and virtual.[35] If Manovich's "Navigable Spaces" had taken stock of the corporeal elements of Benjamin's flâneur concept, the essay might have anticipated more recent revivals of the flâneur concept instead of entertaining the "end of [its] trajectory."[36] Drawing on Benjamin's framing of surveillance and flanerie as interrelated modes of participatory reception, Manovich could

[31] Manovich, "Navigable Space," 29.
[32] *Ibid.*
[33] *Ibid.*
[34] *Ibid.*
[35] Marcelle Crickenberger's hypertext experiment, *The Arcades Project Project*, might expand notions of navigable spaces to address the haptic-spatial dynamics of hypertext media.
[36] Manovich, "Navigable Space," 30.

incorporate Friedberg's "mobilized virtual gaze" into a broader framework of online watchful acts, thus laying the groundwork for the digital citizen's willing participation in surveillance society. Yet when applied to open world games, the theories of moving through virtual spaces that Manovich formulated in the late 1990s are still productive today, as that they remind us of the persistent and central importance of virtual navigation and perception to our present day media landscape—far beyond the navigable spaces of videogames.

Addressing the *user-created* spaces of "supermodernity," Manovich offers the following remark that links architecture to the symbiotic dynamics of game design and player agency: "Architects come to accept that the structures they design will be modified by users' activities, and that these modifications represent an essential part of architecture."[37] The alleyways and dead-end streets of open world games are the navigable spaces where digital flânerie emerges—where designer control recedes and player activity modifies the structures of the gameworld. In this way, digital flânerie attests to the spaces in open worlds that cease to perform like a game; spaces where the player is free to wander, to stroll, to get lost—spaces (that feel) free of optimization and compliance. While such spaces have always existed in videogames, the open world genre has embraced the non-space of level design, as exemplified by numerous AAA developers striving to feature ever more expansive and ever more detailed environments where rule-bound play is meant to unfold, but not as a matter of course. Though digital flânerie first flourished on account of player (in)activity, the architects of gameworlds have responded in turn, offering truly open environments and implementing design principles that allow for—and even promote—aimless exploration.

[37] *Ibid.,* 36.

As player-designer symbiosis has shaped digital flânerie in mainstream game development, the indie design scene has responded with the *walking simulator*. Titles such as *Dear Esther* (The Chinese Room, 2012), *Proteus* (Key & Kanaga, 2013), and *Everybody's Gone to the Rapture* (The Chinese Room, 2015) populate this genre known for elevating the acts of walking and looking around, while removing elements of challenge typically associated with win- and lose-states. Whereas the openness of open world games gives way to player-initiated flânerie, walking simulators oblige the player to become a flâneur, as the acts of watching and walking constitute the narrow spectrum of available player input. Befitting their 'indie' classification, walking simulators often feature nuanced explorations of subject matter that falls beyond the comfort zone of the mainstream game industry, from gender dysmorphia to childhood cancer. Rarely staged in urban environs, walking simulators are usually lonely affairs that feature little-to-no intersubjective group dynamics, let alone crowds of passers-by. Of course, indie designers do not have access to the techno-economic means that the development of sprawling cityscapes demands. To be clear, this study is bound to the flâneur's return to a particular epoch—and a particular technological progression—within the history of videogame development, as delineated in chapters two and three. Like Benjamin's initial pronouncement of the flâneur's return, the emergence of the digital flâneur has in large part been tied to (digital) sprawling cityscapes, and for good reason. Open world games, unlike walking simulators, are site-specific liminal spaces that extend—and critique—the online connectivity and hypervisibility that shape both human perception and digital culture. Moreover, the embodied elements of Benjamin's flâneur scholarship are particularly apt for conceptualizing the haptic power of the control schemas that led to the founding (and further

development) of the open world genre. Though a comparative analysis of walking simulators and open world games would undoubtedly advance flâneur scholarship specifically, and game studies generally, such an effort falls beyond the scope of this study.

Though the following two chapters will focus on the haptic dimensions of the avatar and the correlation of (digital) flânerie and surveillance, the fundamental issues of flânerie discussed throughout this chapter are brought into sharp relief in the context of Cleger and Manovich's divergent approaches to appropriating the flâneur. When brought into conversation with one another, Cleger's procedural-emphasis might expand Manovich's perspective to consider the geolocated nature of digital simulations of real world cities—and how these GPS-enhanced navigable spaces demand an aesthetics of their own. On the other hand, Manovich's reading of flânerie as a broad approach to 3D spaces might challenge Cleger to look past the ideal player type and consider how transgressive play complicates the dynamic between designer control and player agency. Similarly, the following chapters of this study benefit from interfacing with the work of Cleger and Manovich. Cleger's attention to the gendered aspect of flânerie would undoubtedly enrich the investigation of the avatar in Chapter Two, which currently favors the haptic parameters of the player – avatar bond as opposed to the representational levels of that relationship. And Manovich's multifaceted discussion of the disembodied navigation of virtual spaces might expand the analysis of *Watch_Dogs 2* in the final chapter, which thematizes the ways in which we engage with data—and the multitude of corresponding surveillant systems—in our everyday lives beyond the open world.

CHAPTER 2

THE AVATAR: WALTER BENJAMIN AND GAME STUDIES

Introduction

Fig. 2. 1. Super Mario Bros. (Nintendo, 1985).

The screenshot above from *Super Mario Bros.* (1985), part of Nintendo's wildly popular and long-running game series, captures the eponymous hero plumber as he springs forth from a warp pipe. The arch of the game's story, the flow of its gameplay, and the thrust of its marketing campaign all revolve around Mario, as is the case for so many titles in the extended Mario-verse. The broader Mario franchise, which includes over 200 games, has not only been a primary driver behind the ongoing success of Nintendo as a trend-setting game developer, but

has been largely responsible for establishing the videogame console as a household fixture ever since the mid-1980s.[38] Over the years, Mario has dominated the spotlight across a transmedial spectrum, from gaming consoles to comics to the big screen, and to a myriad of merchandise offerings, including Mario-themed breakfast cereals and Handi-Snaks. Mario has also seen his fair share of controversy. Anita Sarkisian, host of the influential *Feminist Frequency* video series, claims that the Mario franchise set the standard for the damsel-in-distress game design trope, as the helpless Princess Peach relies on Mario to save her from the clutches of King Koopa.[39] Mario continues to be the most universally recognized figure from the world of videogames, whether tagged as the face of sexist game tropes or embraced as the beloved mascot of Nintendo's trademark franchise.

Mario's towering cultural presence around the globe is emblematic of his decisive influence within the confines of the magic circle: the space where the player and the videogame interact and gameplay unfolds. Throughout our Mario-centric gaming experience, we use him as a tool to establish our agency within the gameworld. Mario's capabilities—running, jumping, smashing, stomping, and throwing fireballs—define the various ways we interact with Mario's surroundings. Simultaneously we relate to Mario as a character embedded in a fictional world, as he provides us with our subjective anchor in a tale of a kidnapped princess and an intrepid hero. We also bond with Mario as a vicarious body that

[38] This chapter is concerned with the nature of dual control, the perceptual mode that gave rise to digital flânerie. Since dual control emerges from the mainstream home console market, the focus of this chapter is the mainstream gaming market—specifically Nintendo's pivotal role in establishing dual control as the industry standard for the design of game controllers.

[39] Anita Sarkeesian, "Damsel in Distress (part 1) Tropes vs Women in Video Games," Feminist Frequency, March 7, 2013, video, https://feministfrequency.com/video/damsel-in-distress-part-1.

transports us into the gameworld, a conduit which affords us a visceral, embodied experience of Mario's adventures. In this sense, Mario is not just a tool with which we exert power, but also a vessel that exposes us to the dangers of the gameworld. When he teeters on the edge of a platform, we recoil at the potential of plunging into oblivion. Each of these connections to Mario—as a tool of agency, as a subjective anchor, and as a vicarious body—reflects the complexity of the videogame *avatar*, a term commonly used to signify the onscreen element of the videogame that embodies and expresses the interaction between the player and the gameworld.

The avatar is also central to the overarching design of the videogame, as Mario's capabilities and limitations shape the very contours of the gameworld. The fearless plumber is a surprisingly gifted jumper, so the designers litter Mario's surroundings with floating platforms that showcase his talents—while testing the strength of the player–avatar bond. At times it is nearly impossible to differentiate the avatar from its world, as the capabilities of the former are so deeply embedded in the latter. When playing *Super Mario Bros.*, distant platforms first appear out of reach, but they eventually emerge as accessible—even enticing—as we improve our hand-eye coordination and become attuned to Mario's jumping prowess. As we learn to see and experience the gameworld through Mario, we enact a process central to the videogame experience: the player and the avatar become one; the boundaries of the material (the player's family room, the controller) and the virtual (the gameworld, the avatar) begin to blur.

The avatar—at once fictional character, instrument of agency, design paradigm, and vessel of embodied perception—shapes the gameworld for the player and the designer alike.

When we play Nintendo's flagship franchise, Mario is at the center of our experience as both the genesis of the gameworld and the means of entry into that world. In many ways, Mario *is* the world.[40]

Yet, for much of his time in the spotlight, Mario has in fact been sharing his avatar preeminence with a silent, ever-present partner: the player-controlled game camera. In the early 1990s, the advent of 3D navigable gameworlds brought about a sea change transition in the game industry. 2D spaces—the standard format of text adventures like *Zork*, point-and-click titles like *Monkey Island*, and side-scrollers like *Super Mario Bros.*—were largely displaced by the 3D spaces of action adventure games.[41] Signaling, and contributing to, this technological leap, Nintendo released *Super Mario 64* in 1996 to showcase the advanced capabilities—the real time generation of 3D navigable environments in particular—of their 'next generation' home gaming console: the Nintendo 64. The Mario of Nintendo 64, now free from the lateral restrictions of the 2D side-scroller, imbued the gameplay experience with renewed and expanded senses of agency and embodiment. Immersed in 3D worlds, we were now able to follow Mario closely, roaming with him through his surroundings in all directions. The very appeal of 3D environments was the sense of unfettered exploration they unlocked.

[40] Rune Klevjer makes a similar claim in relation to the principle of "concretization": "(…) computer game environments integrate the explicit rules of a game system, through the principle of concretization. This means that the structuring imperatives of the game system become translated or 'absorbed', as it were, into a world of playthings. It is this playable or ludic world that the avatar 'projects around itself'. Different kinds of bodies constitute different kinds of bodily spaces, and the body of the computer game avatar constitutes, by definition, a gameworld." See Rune Klevier, "What Is the Avatar? Fiction and Embodiment in Avatar-Based Singleplayer Computer Games," PhD thesis, (University of Bergen, 2006), 136.

[41] In the "Intermezzo" of his 2015 *Games, Game Design, Game Studies: An Introduction*, Gundolf S. Freyermuth provides a comprehensive analysis of the game camera in relation to the growing aesthetic and economic interdependences between the game and film industries. See Gundolf S. Freyermuth, *Games, Game Design, Game Studies: An Introduction*, (Bielefeld: transcript, 2015).

The industry-wide transition to the 3D action adventure not only offered the player omnidirectional exploration of gameworlds, but also direct control over the game camera. Previously, the dynamic between the player and the game camera was decidedly indirect: the camera was either pushing the player to move along with it, or it was trailing the general flow of gameplay—and usually from a distance. In contrast, the game camera of 3D worlds was tethered directly to the onscreen avatar, bringing the player closer to the action and intensifying the sense of immersion. Most significantly, the player was now free to manipulate the camera as the player saw fit. Thus, the thrust of gameplay was dictated by the player's *dual control* over the avatar and the game camera. Starting in the mid-1990s, the widespread adoption of dual control meant that the freedom to *move* in all directions was paired with, and intensified by, the freedom to *look* in all directions—a confluence of player inputs, via manipulation of the controller, that reinforced the deep synchronicity between navigation and perception. The act of watching became as visceral an impulse as walking. With dual control, players were challenged to continually grapple with the game controller as they learned to see and to explore 3D gameworlds.

Dual control expanded the player's sense of agency with an array of cinematographic capabilities, including panning, tracking, tilting, and zooming—in addition to the onscreen avatar's talents (e.g. Mario's impressive vertical). Additionally, the design of 3D adventure games prompted the player to continually adjust and angle the camera in proximity to the avatar, thus forming a tactile bond between the dexterous actions of the player's human body and the onscreen presentation of the avatar's virtual body. The gameworld also had to be updated in order to accommodate the dynamic perspective of the player, who could now

manipulate the game camera to scrutinize their surroundings. Continually moving the camera in and around the flow of gameplay, the player was now in charge of framing the game's narrative arch, which forked and developed based on the path(s) chosen by the player. In short, the player-controlled camera deepened and broadened the ways the avatar created the player's experience of the gameworld—as a tool of agency, a fictional character, a design paradigm, and a prosthetic extension. If Mario is the world, so too is the player-controlled game camera. In this sense, the game camera serves as a gateway to a much broader discussion of avatarhood, one that includes a wide range of off- and onscreen interactivity that shapes how the player perceives the gameworld.

The complexity of the player–avatar connection is reflected in the numerous approaches to avatar studies undertaken by game scholars from Sherry Turkle to Marie-Laure Ryan.[42] The scope of the extant research is accounted for in Rune Klevjer's comprehensive work, in which conceptualizations of the avatar oscillate between a *fictional character* with which the player identifies, and a *tool* or *instrument* through which the player exercises agency. To be sure, the avatar is the most crucial element on the game screen, a fusion of interface, narrative immersion, player agency, embodied perception, and, above all, a visceral reminder of the videogame medium's interactivity.[43] Of particular interest to this study, a growing trend

[42] Sherry Turkle, *Life on the Screen: Identity in the Age of the Internet*, (New York: Simon & Schuster Paperbacks, 2014), investigates the sense of self in relation to the avatar and online personas. Ryan applies the concept of possible worlds to digital narratives broadly, and the avatar specifically, see Marie-Laure Ryan, *Possible Worlds, Artificial Intelligence and Narrative Theory*, (Indianapolis: Indiana University Press, 1991).

[43] Here and throughout this study, interactivity refers to the commonly understood notion that the videogame and player enter into a cyclic conversation in the act of gameplay, through which the player experiences a sense of agency—however illusory. In his art historical approach to the avatar—*Avatarbilder*—, Benjamin Beil addresses the span of game elements tied to the avatar: "(…) der Avatar verdeutlicht wie kaum ein anderes Element des Computerspielbildes dessen Hybrid-Charakter. So ist der Avatar sowohl ein Werkzeug zur Manipulation der Spielwelt, aber auch eine in diese Spielwelt integrierte Figur. Er markiert als Fusion aus Interface-Element und fiktionaler Instanz ein besonderes prägnantes Charakteristikum des Computerspiels und bildet das entscheidende

in avatar scholarship grapples with the myriad human perceptual processes bound up in the ways flesh-and-blood players relate to the digital avatar bodies that populate the screen spaces of videogames. Walter Benjamin's writing on film, particularly his focus on embodied perception and tactile visuality, resonates deeply with a constellation of contemporary game researchers who feature the onscreen avatar as a crucial element within a broader investigation of human perception and videogames.

Emphasizing the significance of the cyborg, the camera avatar, and haptic feedback technology, scholars like Rune Klevjer, Brendan Keogh, and Frank Fetzer contribute to a body of research that identifies the onscreen avatar as part of a broader avatarial apparatus.[44] In these works, the investigation of the avatar includes both onscreen and off-screen elements, from the game camera to the game controller to the gamer's perceptual faculties. Expanding the bounds of the onscreen avatar, these game studies scholars conceptualize the interactivity between the player and the videogame as perceptually robust. In the hybrid spaces where the complexities of the human sensorium commingle with the technical specificity of media, contemporary studies of the avatar resonate deeply with the writing of Benjamin, particularly his seminal essay "Das Kunstwerk im Zeitalter seiner technischen Reproduzierbarkeit" (The Work of Art in the Age of its Technical Reproducibility). Benjamin's essay features a theory of film preoccupied

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Element des interaktiven Bildes zum bewussten Einbezug des Betrachters bzw. Spielers." See Benjamin Beil, *Avatarbilder*. (Bielefeld: transcript, 2014), 9.

[44] Frank Fetzer follows a long line of game studies scholars who invoke the image of the cyborg to conceptualize the bond between the player and the game. Of particular importance here: Ted Friedman, "Making Sense of Software: Computer Games and Interactive Textuality," in *CyberSociety: Computer-Mediated Communication and Community*, ed. Steve Jones, (Thousand Oaks: SAGE Publications, 1994):73-89; Jon Dovey and Helen W. Kennedy, *Game Cultures: Computer Games As New Media*, (Maidenheard: Open University Press, 2011). Regarding the intersection of embodied perception and haptic feedback technology, this study follows the path laid out by Brendan Keogh, *A Play of Bodies: How We Perceive Videogames,* (Cambridge: MIT Press, 2018).

with those amorphous spaces where the audience and the filmic apparatus interact and influence one another—a sentiment of perceptual dynamism echoed in contemporary avatar studies.

Comparing game research on the avatar with Benjamin's writing on film points to a conceptual synchronicity that reaches beyond a shared intellectual curiosity in the dynamic between human perception and technical innovation. To approach the artwork essay from the perspective of contemporary avatar studies affords a novel reading of Benjamin's film theory that identifies human bodies not only as a conceptual point of focus throughout the text, but also as a point of organizational focus that structures the text. Indeed, the artwork essay employs an *avatarial framework*—constituted by the presence of proxy anthropomorphic figures and visceral, corporeal imagery—that bestows a distinctly human pace and feel to Benjamin's theoretical explorations of the filmic apparatus and audience, while also shaping the reader's experience and understanding of the essay. Through the lens of avatar studies, Benjamin's conceptual avatars take on new shape and meaning by interfacing with contemporary discourse on cyborgian consciousness, prosthetic extension, and haptic feedback technology.

To view avatar studies in the context of the artwork essay is an equally compelling and productive endeavor. Unbound by the contours of an onscreen presence, Benjamin's central avatarial figures—the "Begutachter" (evaluator) and the "Examinator" (examiner)—embody the distracted, test-like way of seeing that is born out of, and perpetuates, the complex

dynamics formed by the media and the masses in the age of reproducibility.[45] The conceptual and historical scope of the artwork essay reinforces contemporary impulses to examine the avatar's significance to embodied perception while providing the theoretical groundwork for exploring how the player and the videogame commingle to unlock unprecedented perceptual constellations. The potential of avatar studies is expanded by harnessing the (long-overlooked) historical-theoretical perspective established by the artwork essay, in which film is analyzed as part of a much broader tension between the human and the technical—a cyborgian tension marked by the death of the aura and the birth of the *Begutachter*.[46]

As contemporary game studies scholars expand the popular understanding of the onscreen avatar and engage with the vast and amorphous expanse of interactivity and embodied perception, so too this study seeks to stretch the avatar across the historical and conceptual reaches of Benjamin's writing on the work of art. When employing the term *avatar* in the context of the artwork essay, I refer to the proxy anthropomorphic figures that Benjamin brings forth to conceptualize modern modes of perception which impact—and even transform—the human body. While Benjamin's avatars do not appear on screen in the way Mario does, they do appear before Benjamin's reader as haptic guides across the theoretical reaches of the artwork essay. And, like videogame avatars, Benjamin's avatars constitute the theoretical entry point for exploring the ways in which interactivity unfolds between human bodies and audiovisual media. Applying the concept of the avatar to Benjamin's theories, I will

[45] Walter Benjamin, "The Work of Art in the Age of Its Technological Reproducibility: Third Version," trans. Harry Zohn and Edmund Jephcott, in *Walter Benjamin: Selected Writings, Volume 4: 1938-1940,* eds. Howard Eiland and Michael W. Jennings, (Cambridge: Belknap Press of Harvard University Press, 2003): 251-83 at 263, 280.
[46] As will be explained in the following, Benjamin establishes a dichotomy between the Apparatur and the Publikum as the formative point of tension in the age of reproducibility. Through this tension, Benjamin explores overarching themes of technology and humanity throughout the numerous versions of the Kunstwerk essay.

demonstrate the theoretical longevity and pliability of the artwork essay, as it resonates with, and complicates, central research topics of contemporary videogame studies. Conversely, applying the artwork essay to contemporary game studies enriches the videogame avatar by connecting it to the historical and theoretical scope of Benjamin's writing.

Focusing on the predominance of proxy figures and bodily imagery in the artwork essay, I will demonstrate that Benjamin establishes an avatarial framework to, first, conceptualize film's impact on human perception, second, teach his reader how to see media (and the world) anew in the age of reproducibility, and third, articulate the broader implications of the perceptual developments at the center of his study. Once I have explored the role of avatars in Benjamin's artwork essay, I will turn my focus to *Super Mario 64*, Nintendo's 1996 landmark title, which contributed to the standardization of dual control—the controller schema that put the player in charge of both the game camera and the onscreen avatar. By comparing Nintendo's dual control to Benjamin's avatarial framework, I will argue that *Super Mario 64* and the artwork essay are both preoccupied with novel modes of embodied perception that are forged in the hybrid spaces where the human sensorium and technology interact. In this context, the return of the flâneur—which emerges from the 3D worlds that follow *Super Mario 64*—has deep theoretical and historical ties to Benjamin's writing on film, forming a bridge between modern and contemporary media ecologies and thus emphasizing the affinity between embodied perception and avatarial frameworks.

Benjamin's Avatarial Framework

The *Walter Benjamin Werke und Nachlaß Kritische Gesamtausgabe* features five distinct versions of *Das Kunstwerk im Zeitalter seiner technischen Reproduzierbarkeit* that were composed between the fall of 1935 and the summer of 1936, as well as numerous notes and letters regarding yet another unrealized version that Benjamin worked on until his death in 1940.[47] In light of the work's iterative publication history, it is perhaps more instructive to conceptualize Benjamin's seminal writing on the "Kunstwerk" not as a monolithic essay, but rather as a prolonged engagement with the media and the masses in modernity. In this regard, it is illuminating to track the changes (in theme, terminology, style, etc.) from one version of the essay to the next, and it is just as revealing to identify the questions and themes that persist across the many versions of the work. While addressing the corpus of artwork texts, I will pay particular attention to the fifth and final completed draft of the essay for its unique reliance on the avatar as a conceptual, organizational, and instructional framework. In turn, I will demonstrate how examining Benjamin's work through an avatarial lens offers a unique and fruitful reading of a well-researched text—a reading that brings Benjamin into a worthwhile conversation with contemporary game studies. My reading of the artwork essay is informed by a constellation of scholars—Lutz Koepnick, Anne Friedberg, and Michael Jennings, among others—who articulate the intersection of sociohistorical realities and human perception in the work of Benjamin.[48]

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[47] Burkhardt Lindner, Simon Broll, and Jessica Nitshe, eds., "Vorbemerkung und Übersicht," in *Das Kunstwerk im Zeitalter seiner technischen Reproduzierbarkeit. Werke und Nachlass: Walter Benjamin*, (Frankfurt: Suhrkamp, 2013), 317.

[48] The works from the authors mentioned here that played a formative role in this study are as follows: Lutz P. Koepnick, *Walter Benjamin and the Aesthetics of Power*, (Lincoln: University of Nebraska Press, 1999); Anne

Common to all versions of the essay, Benjamin stresses the importance and the malleability of the human body, generally, and perceptual faculties, in particular. Benjamin posits a mutually formative bond between the ways in which art is (re)produced and how it is perceived:

> Just as the entire mode of existence of human collectives changes over long historical periods, so too does their mode of perception. The way in which human perception is organized—the medium in which it occurs—is conditioned not only by nature but by history.[49]

Georg Simmel's work, which explores the effects of metropolitan life on human perception, looms large over Benjamin's text, which similarly casts the formation of the human sensorium as contingent upon historical circumstances that take the shape of cultural, technical, and political forces, alongside 'natural' ones. This central claim establishes an intellectual framework that interrogates audiovisual media while foregrounding the human body, making the essay critical for contemporary avatar studies preoccupied with embodied perception. For Benjamin, the dynamics between human and historical circumstances are indelibly altered in the age of reproducibility. As Benjamin maintains, film is the most significant form of reproducible media and therefore it is the ideal medium for investigating the ways in which modern historical circumstances are so impactful to the development of the human sensorium.

The *Publikum*, the *Apparatur*, the Cyborg

Echoing the dichotomy of the "natural" and the "historical" above, Benjamin establishes his analysis of the filmic medium on two central terms, the *Publikum* and the *Apparatur*.

Friedberg, *Window Shopping: Cinema and the Postmodern,* (Berkeley: University of California Press, 2000); Michael Jennings and Tobias Wilke, "Editor's Introduction: Walter Benjamin's Media Tactics: Optics, Perception, and the Work of Art," *Grey Room Special Issue* 39 (Spring 2010): 6-10.

[49] Benjamin, "Work of Art," 255.

> The artistic performance of a stage actor is directly presented to the public (Publikum) by the actor in person; that of the screen actor, however, is presented through a camera (Apparatur).[50]
>
> *Definitiv wird die Kunstleistung des Bühnenschauspielers dem **Publikum** durch diesen selbst in eigener Person präsentiert; dagegen wird die Kunstleistung des Filmdarstellers dem Publikum durch eine **Apparatur** präsentiert.* [51]

While the Publikum and the *Apparatur* pertain to the actor's performance here, Benjamin applies these terms to a spectrum of scenarios across the modern landscape. The robust way in which Benjamin uses these terms is crucial to the meaning and scope of his study. For Benjamin, Publikum most often refers to the audience in a film palace or theater. But it can also refer to the crowd at a sporting event or political rally, or even the public at large. Benjamin's *Apparatur* has a similarly pliant definition.[52] Most often, *Apparatur* refers to the entire system of filmmaking, which includes film technology (from the camera to the projector) as well as film personnel. But *Apparatur* can, broadly speaking, refer to modern technology, just as it can refer specifically to the camera lens. Taken to their definitional limits, these two central terms of Benjamin's film analysis constitute a universal juxtaposition: humanity and technology; nature and artifice. Benjamin not only draws a direct connection between the Publikum and the *Apparatur* throughout his study, he often positions these two elements at odds with one

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[50] Benjamin, "Work of Art," 259. I have added the original terms "Apparatur" and "Publikum" to this passage in order to stress the consistency and the scope of the dynamic Benjamin builds between the Apparatur and the Publikum. Zohn and Jephcott's translation of the Apparatur as "camera" overlooks the human involvement in the filmmaking process, which Benjamin addresses here directly and throughout this section of the fifth iteration of the essay. Furthermore, Benjamin does refer directly to the "Kamera" later in this section, so a blanket translation of Apparatur as "camera" overlooks the differentiation that Benjamin makes between the broader filmic apparatus/Apparatur (which includes film personnel and various pieces of equipment, as well as strategies and styles) and the film camera/Kamera specifically. My emphasis.

[51] Walter Benjamin, "Das Kuntswerk im Zeitalter seiner technischen Reproduzierbarkeit," in *Ausgewählte Werke: Band II*, (Berlin: Suhrkamp Verlag, 2015): 211-283, at 263-4. My emphasis. I will include the German original of passages where the English translation might obscure the nuance of Benjamin's central terminology (esp. Apparatur and Publikum).

[52] Antonio Somaini, "Walter Benjamin's Media Theory: "The Medium and the Apparat," *Grey Room* 62 (Winter 2016): 6-41 provides a helpful comparison of Benjamin's usage of "Apparatur" and "Medium."

another, a constellation that signals the onset of post-auratic life. Ultimately, it is the entrance of Benjamin's conceptual avatar—the *Begutachter* (evaluator)—that points to the potential for a resolution to the tensions between the Publikum and the *Apparatur*. As the anthropomorphic embodiment of cinematic perception, the Begutachter demonstrates the potential for complete symbiosis between humanity and technology. The Begutachter's entrance, and the stage upon which this takes place, postulates a mediascape where previously established boundaries between the Publikum and the *Apparatur* cease to exist. In other words, the Begutachter introduces a *cyborgian* media ecology in which movie-goers and the filmic apparatus become so deeply entangled that they are indistinguishable from one another. The significance and relevance of Benjamin's cyborgian vision comes into full relief in the context of avatar studies.

Influenced by the groundbreaking work of Donna Haraway, game studies scholars Frank Fetzer, Ted Friedman, and Brendan Keogh imbue their explorations of the avatar with distinctly cyborgian tones. According to their studies, when the player interacts with avatarial structures, the once discrete spaces of the player's living room and the gameworld blend into one another. Fetzer uses the concept of the cyborg to characterize the avatar as "a new experiencing (and acting) entity" for which "no distinction is possible" between the player and the videogame during the act of play. Imagining the avatar as a "composite of flesh and technology," Fetzer's reference to the cyborg is bound up in the interactivity between the player and their onscreen proxy.[53] Friedman applies Haraway's concept of "cyborgian consciousness" to posit an

[53] Frank Fetzer, "A Cyborg, If You Like: Technological Intentionality in Avatar-Based Single Player Video Games," in *Violence | Perception | Video Games: New Directions in Game Research*, eds. Frederico Alvarez Igarábal, Michael S. Debus, Curtis L. Maughan, (Bielefeld: transcript, 2019): 115-125, at 122-23.

expanded avatarial interaction between the player and the computer simulation as a whole: "The computer comes to feel like an organic extension of your consciousness, and you may feel like an extension of the computer itself."[54] As Friedman's conceptual understanding of the avatar expands beyond the screen, the invocation of the cyborg anchors the avatarial experience to the human body. Keogh's phenomenology of videogame experience hinges on a cyborgian construct of the "player-and-videogame" that characterizes human bodies "not as stable and essential but as essentially unstable" and "continuously mediated by our ongoing interactions with other human and nonhuman bodies" – including videogame avatars.[55] Just as Benjamin's Begutachter embodies the Publikum and *Apparatur* as a symbiotic union, so too Keogh's "player-and-videogame" constitutes a "cybernetic assemblage" in which "[n]either player nor videogame come first, but both are made in the relationship with the each other."[56] In these distinct but related studies, Fetzer, Friedman, and Keogh harness the central tension of Haraway's *Cyborg Manifesto*, where the real world implications of theoretical and ideological issues are embodied, and litigated, in the visceral imagery of cyborgian fiction. Benjamin's artwork essay extends the image of the cyborg back to the age of reproducibility, as it uncovers the cyborgian blurring of boundaries afforded by avatarial frameworks.[57] Just as Haraway calls on the cyborg to dislodge dualisms, including self/other and culture/nature, Benjamin summons the Begutachter to challenge the juxtaposition of the *Apparatur* and the *Publikum* and reframe the aesthetic experience. Ultimately Benjamin's cyborgian vision of movie screen –

[54] Friedman, "Making Sense of Software."
[55] Keogh, *Play of Bodies,* 26.
[56] *Ibid.,* 22.
[57] This intellectual synchronicity is also identified by M.I. Franklin, "Reading Walter Benjamin and Donna Haraway in the Age of Digital Reproduction," *Information, Communication & Society* 5, no. 4 (2002):591-624.

audience symbiosis offers an analog anticipation of J.C.R. Licklider's Man – Computer symbiosis, a seminal framework for the digital turn, as well as for the application of the cyborg image to viewer/user processes of reception and interaction.[58]

As noted above, Benjamin focuses on the film actor's performance to exemplify the cyborgian tension between the natural and the technical. Comparing performances delivered on the stage with those projected on the screen, Benjamin stresses the indelible impact of the filmic apparatus on the intersubjective relationship between the actor and the audience. The very presence of the *Apparatur*, according to Benjamin, precludes the direct and auratic presentation of the actor's performance to the Publikum—the 'very stuff' of theater. Benjamin characterizes the import of the *Apparatur's* presence as follows:

> The recording apparatus **(Apparatur)** that brings the film actor's performance to the public **(Publikum)** need not respect the performance as an integral whole. Guided by the cameraman, the camera **(Apparatur)** continually changes its position with respect to the performance. The sequence of positional views which the editor composes from the material supplied him constitutes the completed film.[59]
>
> *Die **Apparatur**, die die Leistung des Filmdarstellers vor das **Publikum** bringt, ist nicht gehalten, diese Leistung als Totalität zu respektieren. Sie nimmt unter Führung des Kameramannes laufend zu dieser Leistung Stellung. Die Folge von Stellungnahmen, die der Cutter aus dem ihm abgelieferten Material komponiert, bildet den fertig montierten Film.*[60]

[58] Gundolf S. Freyermuth, "Menschen [Maschinen/Medien] Bilder Digitale Menschenbilder im medienhistorischen Kontext," in *Körper. Kult. Medien Inszenierungen im Alltag und in der Medienbildung,* ed. Norbert Neuß and Mike Große-Loheide, (Bielefeld: Ajz Druck & Verlag, 2007):12-35.

[59] Benjamin, "Work of Art,"259. I have added the original terms "Apparatur" and "Publikum" to this passage in order to stress the consistency and the scope of the dynamic Benjamin builds between the Apparatur and the Publikum. Zohn and Jephcott's translation of the Apparatur as "camera" overlooks the human involvement in the film making process that Benjamin is addressing here and throughout this section of the fifth iteration of the essay. Furthermore, Benjamin does refer directly to the "Kamera" later in this section, so a blanket translation of Apparatur as "camera" overlooks the differentiation that Benjamin makes between the broader filmic apparatus/Apparatur (which includes film personnel and various pieces of equipment, as well as strategies and styles) and the film camera/Kamera specifically.

[60] Benjamin, "Kuntswerk" in *Ausgewählte Werke,* 263-4.

The film team, armed with camera and editing equipment, dictates the perspective and sequencing of the performance, thus shattering the totality of the actor's efforts.[61] It is telling that Benjamin frames the encroachment of the *Apparatur* on the actor's performance in terms of integrity, a distinctly human concept. Simply incapable of having intersubjective respect for the performance, the *Apparatur* splices and sutures the actor's efforts into a post-auratic and rearranged "integral whole." In an allusion to surgical imagery soon to come, Benjamin characterizes the presence of the film camera and film crew with a clinical coldness: "...the performance of the actor is subjected to a series of optical tests."[62] The once auratic connection between performer and the Publikum—the here and now of the live performance—is supplanted by a one-way evaluation, as the performer is relegated to test-subject before the instruments of a "group of specialists"—the filmic apparatus.[63] The film actor's performance exemplifies the tension between the Publikum and the *Apparatur*, thus making a popular spectacle of the tradition-shattering impact of the death of the aura. Though the interpersonal connectivity and ephemerality of the auratic theater performance are irretrievably lost in the face of the *Apparatur*, Benjamin conceptualizes an opening up of space in which the film performance might be redeemed.

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[61] By referencing the fragmented nature of film editing, Benjamin is most likely referring to "montage as theorized and practised by Brecht and Eisenstein [...]." Steve Giles offers an analysis of the aesthetic implications of Brechtian montage in the artwork essay. See Steve Giles, "Vorsprung durch Technik? Aesthetic modernity in Der Dreigroschenprozess and the Kunstwerk essay," in *Walter Benjamin: Critical Evaluations in Cultural Theory, Volume III: Appropriations*, ed. Peter Osborne, (Abingdon: Routledge, 2005):54-80, at 69.

[62] Benjamin, "Work of Art," 259.

[63] Walter Benjamin, "The Work of Art in the Age of Its Technological Reproducibility: Second Version," trans. Edmund Jephcott and Harry Zohn, in *The Work of Art in the Age of Its Technological Reproducibility, and Other Writings on Media*, eds. Michael W. Jennings, Brigid Doherty, Thomas Y. Levin, (Cambridge: Belknap Press of Harvard University Press, 2008), 30. This is to be distinguished from Benjamin, "Work of Art," which refers to the essay as contained in *Walter Benjamin: Selected Writings, Volume 4: 1938-1940,* eds. Howard Eiland and Michael W. Jennings, (Cambridge: Belknap Press of Harvard University Press, 2003).

Amidst dissonance between the Publikum and the *Apparatur*, Benjamin introduces his initial avatarial figure—the Begutachter:

> [The usage of the Apparatus] permits the audience to take the position of the critic/*evaluator* **(Begutachter)**, without experiencing any personal contact with the actor. *The audience's* ***(Publikum)*** *identification with the actor is really an identification with the camera* ***(Apparat)****. Consequently, the audience takes the position of the camera* ***(Apparat)****; its approach is that of testing.* This is not an approach compatible with cult value.[64]
>
> Dieses kommt dadurch in die Haltung eines durch keinerlei persönlichen Kontakt mit dem Darsteller gestörten **Begutachters**. ***Das Publikum*** *fühlt sich in den Darsteller nur ein, indem es sich in den* ***Apparat*** *einfühlt. Es übernimmt also dessen Haltung: es testet.* Das ist keine Haltung, der Kultwerte ausgesetzt werden können. [65]

Replacing the flesh-and-blood stage actor with the equipment and specialists of the filmic apparatus, Benjamin offers the Begutachter as the conceptual avatar for post-auratic perception—the contemplative gaze is supplanted by the probing evaluation.

As it steps into the role of the Begutachter, the Publikum identifies with, and adopts the perspective of, the *Apparatur*; a conceptual leap made tangible through Benjamin's avatarial framework. The proxy for a cyborgian mode of perception, the Begutachter is conceptually instructive as it both embodies and demonstrates the theoretical cognitive processes by which "the mode of human sense perception" is shaped by its historical circumstances.[66] Amidst these circumstances—dramatically reorganized by the reproducibility of modern media—the Begutachter steps forth as the conceptual avatar for perceptual *testing*.

The Begutachter also represents a substantial shift in Benjamin's writing on film. Featured exclusively in the fifth and final completed version of the essay, the term *Begutachter*

[64] Benjamin, "Work of Art," 260.
[65] Benjamin, "Kuntswerk" in *Ausgewählte Werke,* 263.
[66] A notion that reverberates in Keogh's formulation of human bodies as "continuously mediated" and inherently "unstable."

signals a much more tangible and programmatic assessment of the Publikum–*Apparatur* dynamic. The embodiment of a complete (and potentially productive) symbiosis of the movie-goer and the filmic apparatus, Benjamin's Begutachter marks the beginning of an avatarial framework that demarcates the film analysis portion of the fifth iteration of the essay. Whereas Benjamin blends his writing on film throughout the entire work in earlier drafts, it is the fifth iteration where Benjamin sharply segments his essay into two halves: first, a brief history of auratic art and reproducibility, then, an extended analysis of film as the pinnacle of post-auratic cultural production. Benjamin bookends his writing on film with avatarial figures, thereby accentuating the bifurcation of the essay. Whereas the Begutachter accompanies Benjamin's opening thoughts on film (via the film actor's performance), an "Examinator" (examiner)—quite similar to the Begutachter—appears as the avatar for a distracted mode of perception at the close of the essay. Despite the minor alteration in phrasing, the initial terminology of Begutachter is directly recycled as Benjamin prefaces the entrance of the Examinator avatar by describing the film-going Publikum as having adopted a "*begutachtende* Haltung" (evaluating approach).[67] Though I will return later to the broader significance of the Examinator, its organizational significance is self-evident as the final piece of Benjamin's avatarial framework. The presence of both the Begutachter and the ("begutachtende") Examinator casts the rest of the film analysis—already teeming with bodily, visceral language—in a light of readerly intuitiveness. As noted by Jennings, Benjamin's panorama of modernity is littered with conceptual avatars:

[67] The phrasing is so similar that Zohn translates both "die Haltung (eines) Begutachters" and "begutachtende Haltung" as "position of the critic" in his initial translation of the essay.

> In the essays "The Paris of the Second Empire in Baudelaire" and "On Some Motifs in Baudelaire" and in the collection of fragments "Central Park," the avatars of modernity for which Benjamin is most famous—the flâneur, the detective, the conspirator, the collector, and the ragpicker—all play their role.[68]

The Begutachter and the Examinator could be added to the list, as they guide readers of the artwork essay through the conceptual complexities and ambiguities of Benjamin's modern media ecology, giving human form to the symbiotic potentialities of the Publikum and the *Apparatur*. Like Benjamin's other "avatars of modernity," the Begutachter and the Examinator explicate the intricacies of film viewership while giving shape to the widespread impact of reproducibility, thus showing the scale of the avatar encompasses both the individual and the societal.[69]

Though Benjamin's avatars correspond to both an organizational and conceptual shift in his writing, the cyborgian themes they embody persist in all versions of the essay. Addressing the relationship between the film-going audience and the filmic apparatus, Benjamin attributes the social significance of the filmic perspective to its capacity to demonstrate the extent to which the *Apparatur* has saturated the lives of modern individuals//modern life:

> Hence, the presentation of reality in film is incomparably the more significant for the people of today, since it provides the equipment-free **(apparatfreien)** aspect of reality they are entitled to demand from a work of art, and does so precisely on the basis of the most intensive interpenetration of reality with equipment **(Apparatur)**.[70]
>
> *So ist die filmische Darstellung der Realität für den heutigen Menschen darum die unvergleichlich bedeutungsvollere, weil sie den **apparatfreien** Aspekt der Wirklichkeit, den er vom Kunstwerk zu fordern berechtigt ist, gerade auf Grund ihrer intensivsten Durchdringung mit der **Apparatur** gewährt.*[71]

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[68] Michael W. Jennings, ed., "A Note on the Text," in *Walter Benjamin: Selected Writings, Volume 4: 1938-1940,* eds. Howard Eiland and Michael W. Jennings, (Cambridge: Belknap Press of Harvard University Press, 2003), 425.
[69] Gerry Moorey demonstrates the embodied aspects of abstract thought conveyed by Benjamin's Denkfiguren in: Gerry Moorey, "Up Close and Impersonal: Walter Benjamin's Thought-Images," *Third Text* 19, no. 6 (2005):607-16.
[70] Benjamin, "Work of Art," 264.
[71] Benjamin, "Kuntswerk" in *Ausgewählte Werke,* 271.

The perspective ("aspect of reality") afforded by film is not only "more significant" to the Publikum, it is the perspective they are entitled to as participants within the modern media landscape. Film exposes its audience to—and prepares them for—a truly cyborgian point of view, established "on the basis of the most intensive interpenetration of reality" by the *Apparatur*. The age of technical reproducibility is simultaneously the age of cyborgian hybridity, where the notion of 'natural reality' is neither significant, nor even possible, as the *Apparatur*'s reach into all aspects of everyday life has completely transformed reality as such. By melding with the *Apparatur*, the *Publikum* adopts the cyborgian mode of perception (as demonstrated by the *Begutachter*), thus establishing a media ecology unimpeded by the "cult values" of the aura. As the *Publikum*'s guide, the *Begutachter* avatar embodies the cyborgian symbiosis of human perception and technical artifice, giving these cognitive perceptual processes a shape that is—in part—human, and thus, relatable to Benjamin's reader.

Seeing, Testing

The binding force at the center of Benjamin's cyborgian media ecology is the concept of *testing*—a novel mode of perception that shapes the manifold interactivity between the Publikum and the Apparatur. Citing the artwork essay's relevance to our understanding of modern perception, Lutz Koepnick asserts that Benjamin's concept of the "industrialization of perception" connects technical innovation and the evolving condition of visuality as experienced by the human bodies of modernity:

> Urban traffic, factory halls, department stores, increasing communication speeds, and new modes of travel, as they emerged in the middle of the nineteenth century, confronted the subject with discontinuous visual stimulations and shock-like impressions, causing bourgeois city

> dwellers as much as proletarian machine workers to raise their level of consciousness as a defense against this barrage of fragmented stimuli.[72]

From this barrage of "visual stimulations" Benjamin posits perceptual testing as a defining aspect of modern life, impacting everyone from the long-distance runner racing against the clock to the job candidate scrutinized by the aptitude test to the actor subjected to the clinical lens of the filmic apparatus. Benjamin identifies such everyday manifestations of testing under the sweeping category of the *Testleistung*—commonly translated as *test performance*, but perhaps more accurately as *performance test*. Indeed, testing connotes detached measurement rather than contemplative critique; mechanized observation rather than interpersonal connection. Benjamin bases his definition of the Testleistung on the transformative impact that camera movement and celluloid splicing have on the film performance, as opposed to the "integral whole" of the thespian's Kunstleistung (artistic performance). For its capacity to make a spectacle of the cyborgian tensions underpinning modern life, the movie star's Testleistung distinguishes itself from mundane—and often unnoticed—manifestations of testing. The cinema not only exposes and popularizes the Testleistung's ubiquity, it also provides a training ground where the Publikum learns how to implement and respond to testing, thus negotiating their broader entanglement with the Apparatur: "The function of film is to train human beings in the apperceptions and reactions needed to deal with a vast apparatus whose role in their lives is expanding almost daily."[73] This direct prescription of film's societal function, from earlier drafts of the essay, is folded into a more implicit approach in the fifth version, where Benjamin

[72] Lutz P. Koepnick, *Framing Attention: Windows on Modern German Culture,* (Baltimore: Johns Hopkins University Press, 2007), 11-12.
[73] Benjamin, "Work of Art," 269.

introduces the Begutachter to both embody and demonstrate the Publikum's (potential) adoption of perceptual testing.

Already in its title, the Begutachter (the *evaluator*) evokes the Testleistung, as does the figure's explicit function as delineated by Benjamin: "*es testet*" (it tests).[74] Similarly, Examinator (examiner) connotes testing, as does Benjamin's characterization of its "begutachtende Haltung" (evaluating attitude).[75] Bridging the filmic Testleistung with the aptitude test, Benjamin draws a direct comparison between the examiner and the film director, stating they share an "identical" vantage point.[76] Benjamin values the role of film in the modern world as doubly significant for its ability to demonstrate the nature of the Testleistung while equipping its audience with the perceptual habits and strategies that are crucial in the age of reproducibility. Both subjects and agents of the Testleistung, Benjamin's Publikum—consisting of city dwellers, factory workers, sports fans, and movie-goers—actively participates in the ongoing calibration of testing as a means of perceiving and shaping modern life: "The alignment of reality with the masses and of the masses with reality is a process of immeasurable importance for both thinking and perception."[77] Having signaled the *presence* of testing with the introduction of the Begutachter, Benjamin then elucidates the *nature* of testing by building out his avatarial framework with visceral imagery from the fields of surgery and psychoanalysis, thus bringing the Testleistung in direct tension with the human body.

[74] "It" refers to the Publikum, who identifies with the Apparat by taking the approach of the Begutachter. While "It" directly refers to the Publikum, "It" simultaneously connotes the Apparatur and the Begutachter.
[75] Benjamin, "Work of Art," 269.
[76] Benjamin draws a direct connection between the examiner and the film director: "The director in the studio occupies a position identical to that of the examiner during aptitude tests."
[77] Benjamin, "Kuntswerk" in *Ausgewählte Werke,* 256.

Benjamin details the Testleistung by turning his focus to the filmic image, an exemplary site of the cyborgian entanglement of the Publikum and the Apparatur. For Benjamin, the version of reality presented by the filmic image has been so thoroughly saturated by the Apparatur that it is no longer possible to differentiate the natural from the artificial. Benjamin illuminates his analysis by making yet another intermedial comparison, this time between film and painting. Looking beyond the image to the image producers, Benjamin compares the painter and the cameraman by making a proxy comparison: The *Magier* (magician/healer) steps in for the painter, and the *Chirurg* (surgeon) for the cameraman. With additional avatarial figures in play, Benjamin refers to this proxy comparison as a *Hilfskonstruktion* (auxiliary construction), a distinctly didactic formulation that speaks to the instructive purpose of avatars in the essay. The surgeon–magician Hilfskonstruktion mirrors the dynamics of the Apparatur and the actor. Just as the filmic apparatus eradicates the humanity of the actor's performance, so too the surgeon evades the intersubjective connectivity of the auratic order: "[…] the surgeon abstains at the decisive moment from confronting his patient person to person […]."[78] To perform the operation, the surgeon foregoes interpersonal connection and instead "cuts into" the "integral whole" of the human body. The presence of the Apparatur, whether on the stage or in the operating room, displaces intersubjectivity with the impersonal and invasive Testleistung.

Yet the loss of interpersonal connection opens pathways to other potentialities of interactivity. As Benjamin describes, the surgeon penetrates the patient's body in contrast to the magician/healer who establishes a "natural distance" from the sick. Casting the camera

[78] Benjamin, "Work of Art," 263.

operator as surgeon, Benjamin likens cinematography to surgery, a particularly invasive—and violent—imagining of the Testleistung:

> The magician heals a sick person by the laying on of hands; the surgeon cuts into the patient's body. […] Magician and surgeon compare to painter and cameraman. The painter maintains in his work a natural distance from reality, the cameraman penetrates deeply into its web.[79]

The camera operator effectively *restructures* reality by penetrating "deeply into its web," just as the surgeon restructures the natural order of the body by cutting into it and adjusting its organs.[80] In the shadow of the Apparatur, the individual is no longer a Mensch but rather a body subjected to the Testleistung—whether carried out by the lens or the scalpel. Of course Benjamin's Hilfskonstruktion points to the enormous technological advances in modern medicine that reframed the inner workings of the human body as a frontier of medical knowledge ripe for exploration—a perspective beyond the reach of the healer, keeping a "natural distance." However invasive or violent in nature, the practice of surgery serves the preservation of life, while radically restructuring the natural state of the body.

Benjamin's characterization of the Testleistung as surgical operation complicates the cyborgian dynamic between the Publikum and the Apparatur. The charged nature of surgical imagery places a visceral emphasis on the extent to which testing-as-perception impacts the world and deepens the cyborgian hybridity of modern life. If the Begutachter avatar announced the emergence of testing, then the surgeon avatar embodies testing as a mode of perception with the precision and power of the scalpel to deeply alter the natural order of things. The

[79] *Ibid.,* 263.
[80] *Ibid*., 263. "The surgeon does exactly the reverse; he greatly diminishes the distance from the patient by penetrating the patient's body, and increases it only slightly by the caution with which his had moves among the organs."

surgeon's anthropomorphic appearance placed in tandem with violent, corporeal imagery points to the human potentialities of testing, that is, the ways testing works with and on the body as perceptual faculties evolve. The cyborgian origins of the Begutachter avatar are intensified by the image of the surgeon's hands moving among the patient's organs, a visceral reminder of Benjamin's earlier stage-setting claim that the human body changes in relation to its historical circumstances. Ultimately, the comparison of filmmaking to surgery speaks to the radical potential of the Testleistung, with all of its strange—and even disquieting—ramifications for the human body.

Benjamin shifts his conceptualization of testing to the inner workings of the human mind via the field of psychoanalysis. In no uncertain terms, Benjamin sets the stage for the next level of his avatarial framework: "A glance at occupational psychology illustrates the testing capacity of the equipment (Apparatur)."[81] With the introduction of yet another layer of extended comparisons and corporeal imagery, the iterative nature of Benjamin's avatarial framework becomes clear. Benjamin's Begutachter, having deftly adopted the surgeon's capabilities, next inherits psychoanalytic expertise, namely the ability to analyze that which had "previously floated unnoticed on the broad stream of perception."[82] In the context of psychoanalysis, Benjamin gives his most detailed account of filmic testing, as he references specific capacities of the medium—the zoom and slow-motion—which he likens to the

[81] *Ibid.,* 265. Original: "Ein Blick auf die Leistungspsychologie illustriert die Fähigkeit der Apparatur zu testen." See Benjamin, "Kuntswerk" in *Ausgewählte Werke,* 273.
[82] Benjamin, "Work of Art," 265.

mechanics of psychoanalysis for its ability to bring about a "similar deepening of apperception throughout the entire spectrum" of both optical and auditory fields.[83]

As Benjamin's account of the Testleistung grows in detail, his restrained tones (from earlier in the essay) give way to a decidedly positive assessment of filmic testing's liberating capacity, which, like psychoanalysis, has "enriched our field of perception."[84] Returning to his ongoing intermedial juxtapositions (film v. theater, film v. painting), Benjamin foregrounds and further clarifies the unique nature of the filmic process and the images it produces: "Actually, if we think of a filmed action as neatly delineated within a particular situation—like a flexed muscle in a body—it is difficult to say which is more fascinating, its artistic value or its value for science."[85] Oriented to the human body once again, Benjamin's essay attributes the medium specificity of film (camera movement and editing techniques) to the development of its "scientific" testing capacity, i.e. its unique ability to reveal and examine the "optical unconscious."[86] By linking the technical specifics of filmmaking to the expanding presence of perceptual testing, Benjamin delineates the pivotal role occupied by film within the evolving media landscape: "Demonstrating that the artistic uses of photography are identical to its scientific uses—these two dimensions having usually been separated until now—will be one of the revolutionary functions of film."[87] For Benjamin, film shows its audience the potential for a productive symbiosis of artistic and scientific impulses, just as the Begutachter signals the cyborgian potential of the Publikum and the Apparatur.

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[83] Ibid.
[84] *Ibid.*
[85] *Ibid.*
[86] *Ibid.,* 266.
[87] *Ibid.,* 265.

Whether bridging the artistic and scientific impulses of film, or the broader cyborgian tensions of modern life, Benjamin's essay foregrounds notions of hybridity through his avatarial framework. In Benjamin's cyborgian media ecology, proxy human bodies reign over, and are subjected to, the power of perceptual testing. Rune Klevjer addresses this same sense of hybridity with his theory of "prosthetic embodiment," which balances the construct of the avatar-as-agency with that of the avatar-as-prosthetic. As Klevjer maintains, "[w]hen we play, because the avatar extends the body rather than pure agency or subjectivity, screen space becomes a world that we are subjected to, a place we inhabit and where we struggle for survival."[88] This hybridity resonates throughout Benjamin's avatarial framework, which juxtaposes the agency of those who examine (the Begutachter, the filmmakers, the surgeon, and the psychoanalyst) with the vulnerability of the examined (the job applicant, the actor, the factory worker, and the patient). Benjamin's cast of avatars not only embody the impact of the Testleistung, but also the nature of testing-as-perception. Tying the medium specificity of film to the evolving state of the Publikum's perceptual faculties, Benjamin employs his avatars with the same conceptual 'workload' as Rune Klevjer's "camera-body," through which the player "belong[s] to and inhabit[s]" the gameworld. As Klevjer's "camera-body" delineates the novel perceptual modes afforded by the avatarial game camera, Benjamin's avatars embody the expansion of the human sensorium that emerges from the symbiosis of the film camera and the film audience. New perceptual modes, for both Benjamin and Klevjer, are learned through the feedback loop of haptic stimuli and bodily responses—a long-term process of habit formation

[88] Rune Klevjer, "Enter the Avatar: The Phenomenology of Prosthetic Telepresence in Computer Games," in *The Philosophy of Computer Games*, eds. John Richard Sageng, Hallvard J. Fossheim, and Tarjei Mandt Larsen, (London: Springer, 2012): 17-38, at 28.

best conveyed by avatars that "simulate familiar corporealities [...] in order to be accessible."[89] In the closing passages of the artwork essay, its cumulative avatarial emphasis comes to the fore as the Begutachter ventures beyond the cinema auditorium.

Tactile Perception and Proxy Bodies

Throughout Benjamin's writing on film, human bodies are examined at all angles, from overhead shots of the masses to close-ups of isolated body parts. Benjamin characterizes the Testleistung as subjecting human bodies to a litany of trauma, including surgical incisions, rearranged organs, percussive optics, and the perceptual shocks that punctuate the modern cityscape. For Benjamin, bodies not only provide a point of theoretical focus, they also give form and scope to his conceptualization of testing-as-perception. Indeed, the Testleistung peels back layer after layer of the aura, starting with the actor's physical presence on the stage, then the integral whole of the patient's body on the operating table, and down to the secrets of the human mind exposed through psychoanalytic practice.[90] Having revealed the impact of testing on the innermost depths of the human body, Benjamin directs the power of the Testleistung outward onto the streets of modernity:

> Our bars and city streets, our offices and furnished rooms, our railroad stations and our factories seemed to close relentlessly around us. Then came film and exploded this prison-world with the dynamite of the split second, so that now we can set off calmly on journeys of adventure among its far-flung debris.[91]

Film-goers are trained to adopt the perspective of the Begutachter—and the impact is liberating. No longer hemmed in by the auratic fetters of tradition, Benjamin's Begutachter

[89] Klevjer, "Enter the Avatar," 36.
[90] Here, trauma to the body reflects what Koepnick describes as the "nostalgic chords" found in Benjamin's descriptions of the death of the aura. Koepnick, *Aesthetics of Power*, 110.
[91] Benjamin, "Work of Art," 265.

adopts the contours of the flâneur, a figure who carves out hybrid metropolitan spaces with his glance and his gait. In tracking the life and death(s) of the aura, Lutz Koepnick notes that the "emancipation from the authority of auratic gazes" begins with Benjamin's writing on "modern technologies" and continues with his works on Baudelaire and the "urban metropolis."[92] The flâneur, attuned to the shock effects of the post-auratic media ecology, imbues Benjamin's avatarial framework with a sense of detached mobility, as noted by Anne Friedberg in her seminal reading of the artwork essay.[93] In line with Friedberg, Koepnick describes Benjamin's modernity as "a non-place, designed for and inhabited by endlessly mobile and distracted viewing subjects" whose "ceaseless temporal and spatial displacement" Benjamin welcomes as a "source of liberation, as an opportunity to invent new postbourgeois collectivities [...]."[94] That the film-going Publikum might learn, like the flâneur, to combat the shocks of the post-auratic landscape is a potentiality that Benjamin characterizes in terms of life and death:

> Film is the art form corresponding to the increased threat to life that faces people today. Humanity's need to expose itself to shock effects represents an adaptation to the dangers threatening it. Film corresponds to profound changes in the apparatus of apperception—changes that are experienced on the scale of private existence by each passerby in big-city traffic, and on a historical scale by every present-day citizen.[95]

As signaled by layers of visceral bodily imagery, breaking from the strictures of the aura is as impactful on the human perceptual apparatus as it is necessary for humanity's continued survival. Within his avatarial framework, Benjamin fuses the film-goer and the flâneur as

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[92] Koepnick, *Aesthetics of Power*, 110-111.
[93] Friedberg, *Window Shopping,* 47: "For Benjamin, 'the dynamite of the tenth of a second' sent a temporal charge that tore at the spatial materials of modernity; its brickworks, pavements, window glass, and iron girders were 'burst asunder.' The film was privileged as the agent of this rupture, an epistemological TNT. And in its wake, the flâneur remained, left with a different yet 'calm and adventurous' way of 'travelling.'"
[94] Koepnick, *Framing Attention*, 12.
[95] Benjamin, "Work of Art," 281.

products of the metropolitan mediascape who have undergone—or are pursuing—an education in modern visuality. Whether packed in a movie theater or strolling along a thoroughfare, the process of learning to see anew—to adapt to the "dangers threatening" humanity—is a lesson for the body as much as it is for the mind. Showing the way forward, Benjamin's strolling Begutachter returns at the close of the essay as the embodiment of a now 'evolved' Publikum, one that has learned the lessons of film by watching—and feeling—them.

Reverting again to violent corporeal imagery, Benjamin characterizes the filmic montage as having a "percussive effect" on the Publikum. It is through this tactile connection that the Publikum's perceptual apparatus develops in tandem with its historical circumstances:

> For the tasks which face the human apparatus of perception at historical turning points cannot be performed solely by optical means—that is, by way of contemplation. They are mastered gradually—taking their cue from tactile reception—through habit.[96]

To illustrate the process of tactile reception, Benjamin makes his final intermedial comparison, this time between film and architecture for their shared capacity to impact mass audiences through a combination of optic and tactile stimuli. Benjamin's comparison connects developments in sensorial processes (the human perceptual Apparatur) to historical circumstances (the filmic Apparatur) and the aesthetic consequences thereof: collective reception in a state of distraction displaces isolated contemplation—the movies displace the museum. Benjamin's juxtaposition of architecture and film—the most pivotal intermedial comparison of the essay—provides us with what has long been a guiding image for the

[96] *Ibid.,* 268.

historicization and conceptualization of videogames: navigable screen worlds.[97] By foregrounding an avatarial apparatus, 3D game worlds afford architectural navigability and sensations of place and movement within the space of a screen. Writing before the age of digital interactivity, Benjamin connects architecture and cinema to stress the inherent tactile quality of the visual, a notion that has since been extended and amplified by haptic feedback technology—the game controller gripped in the player's hands. Rune Klevjer echoes Benjamin's notion of learning to see through habit, claiming that "as a result of our hard effort and habituation" the game controller re-wires "our bodily awareness as it becomes part of the invisible, part of that by which we perceive and act."[98] With the senses as his focus, Keogh foregrounds haptic feedback technology as an integral element of videogames, which "engage the body as a form of audiovisual-haptic media"—an understanding of the videogame medium that echoes Benjamin's sensorial description of film.[99]

Benjamin's film analysis—and his avatarial framework—concludes with an image of the Publikum fully bonded with an avatar: "The audience is an examiner, but a distracted one."[100] Having absorbed the many lessons—tactile, optic, and auditory—of the Testleistung, the Publikum stands ready to calmly embark on adventures through the modern media landscape. From the Begutachter to the Examinator, the avatars that line the pages of Benjamin's film

[97] See Chapter One for an analysis of Lev Manovich's 1998 essay "Navigable Spaces." See also: Michael Nitsche, *Video Game Spaces: Image, Play, and Structure in 3D Worlds*, (Cambridge, Mass: MIT Press, 2009).
[98] Klevjer, "Enter the Avatar," 24. Klevjer and Keogh's work on embodiment and videogames is highly influenced by Maurice Merleau-Ponty. A comparison of Merleau-Ponty's and Benjamin's work on embodied perception lies beyond the scope of this current study. See Mineo Takamura, "Tactility and Modernity: The Sense of Touch in D. H. Lawrence, Alfred Stieglitz, Walter Benjamin, and Maurice Merleau-Ponty," PhD Dissertation, (University of Illinois at Urbana-Champaign, 2012), http://hdl.handle.net/2142/29741; Paul Anthony Mazzocchi, "The Flesh of History: Intersubjectivity, Experience and Utopia in Merleau-Ponty and Benjamin," PhD Dissertation, (York University, 2016), http://hdl.handle.net/10315/32686.
[99] Keogh, *Play of Bodies*, 12.
[100] Benjamin, "Work of Art," 269.

analysis guide the reader through the disorienting process of breaking from the perceptual and aesthetic chains of the aura—a process with visceral ramifications for the body. The Examinator, the closing avatar of the essay, not only embodies Benjamin's thoughts on the filmic medium, it also reveals Benjamin's hopes for all that the medium could be: a force to galvanize widespread cyborgian symbiosis within a post-auratic media ecology, thus forming novel modes of attention—modes more receptive to the politicized cinema exemplified by the work of Joris Ivens and Dziga Vertov.

By thinking and writing through his avatars, Benjamin demonstrates the applicability and efficacy of foregrounding the human body in the exploration of perceptual phenomena. From the perspective of contemporary game studies, Benjamin's artwork essay provides a conceptual bridge to the past that fortifies the study of the avatar with a distinctly modern emphasis, one that predates the game controller and other haptic feedback technology. As today's cutting-edge game research uncovers how videogames affect the player's mind, Benjamin's avatarial framework emerges as deeply intuitive and remarkably prescient. Moreover, the scope of Benjamin's thought, which connects the intricacies of cognition to sweeping historical change, can provide a framework of disciplinary flexibility and intellectual expansiveness well-suited for the challenges facing videogame and media scholars today.

Dual Control

As the gaming industry made the massive shift from 2D to 3D worlds in the 1990s, Nintendo released *Super Mario 64*, which featured the trailblazing controller schema of *dual control*. Placing the player, Mario, and the game camera into a cyborgian dynamic, *Super Mario*

64's iteration of dual control was distinguished by its design of avatars—including a camera avatar—that helped players orient themselves in the 3D gameworld. Like Benjamin's artwork essay, Nintendo's dual control enlists avatars to simultaneously conceptualize and 'teach' their audience a haptic mode of perception. Indeed, reading *Super Mario 64*'s dual control as an avatarial framework in the mold of Benjamin's artwork essay shows the resonance between two similar efforts—one theoretical, one practical—to make sense of the novel mode(s) of human perception afforded by technical innovation. Furthermore, the return of Benjamin's flâneur to the world of gaming can be traced back to *Super Mario 64*, which set the stage for the open world genre. The design decisions surrounding *Super Mario 64*'s avatarial framework simultaneously emphasize and obscure the player-controlled game camera, resulting in a sensorial de- and reconstruction of virtual walking and watching: the fundamental components of digital flânerie.[101] The following, then, is an analysis of *Super Mario 64*'s avatarial framework informed by Walter Benjamin's artwork essay and its resonance with contemporary game studies.

Mario, the Lakitu and Cyborgian Symbiosis

In a sequence of reflexive game design, Mario is confronted by a large mirror that exposes the presence of a second figure: a turtle, perched on a cloud, holding the player-controlled game camera. It is the Lakitu.

[101] See Chapter 1 of this study for an analysis of digital flânerie in the context of the history 3D gameworlds.

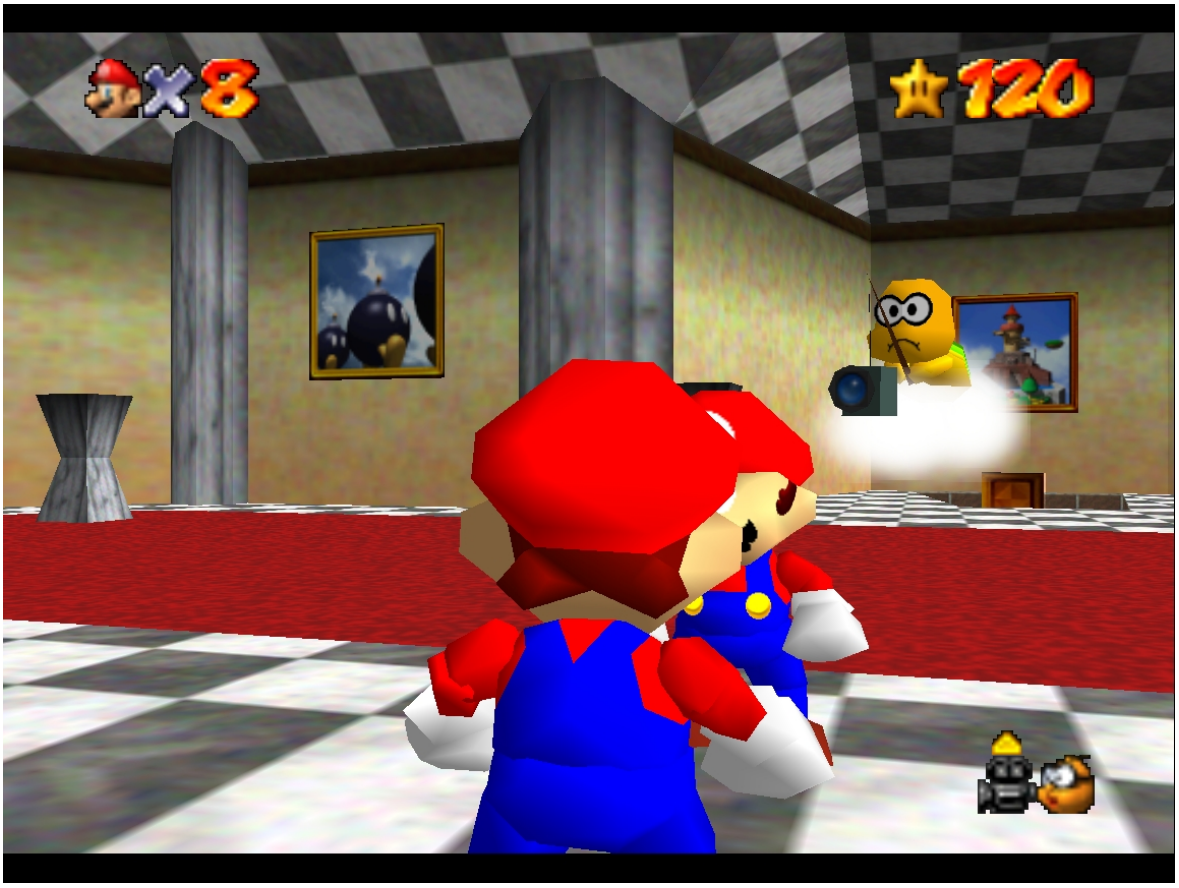

Fig. 2. 2. The player is confronted by the reflection of the Lakitu camera.

The moment is a jarring reminder that Mario is never alone in the gameworld, even when he appears to be the only one on the pixelated horizon. The sudden—and unexpected—intrusion of the *Lakitu camera* into the gameworld exposes the player-controlled camera, an object typically concealed by the fourth wall.[102] The careful planning of the mise-en-scène suggests the onscreen presence of an off-screen space. The fact that we see the Lakitu instead of the player, or an extradiegetic floating game camera, speaks to Nintendo's design decision to maintain

[102] Keogh elaborates on the player's role in maintaining the videogame's fourth wall: "The player must view this world from somewhere, from their corporeal position before a television screen, and thus they both literally and figuratively must actively construct the fourth wall in order to feel that sense of immersive diegesis [...]." Keogh, *Play of Bodies*, 38.

diegetic seamlessness throughout the *Super Mario 64* gameworld. But the play with mirrors merely suggests the Lakitu's presence in Mario's diegetic space. As our window into the gameworld, the Lakitu camera cannot directly portray itself just as no one can stare directly into their own face.[103] Only with the help of a reflective surface can the Lakitu camera appear in the same space as Mario. For fans of the Mario franchise, the mirror image of the Lakitu camera is at once comforting and unsettling. On the one hand, the Lakitu is a long-time recurring character of the Mario-verse and his familiar face serves as a comforting counterpoint to the strange and disorienting perspective of the player-controlled camera. On the other hand, the Lakitu's reflection points to the hybrid space the hovering turtle occupies, a space that straddles the gameworld and the player's living room—the cyborgian space where the Apparatur and the Publikum become one. With no functional value to advancing in the game, the mirror is a point of provocation: Where is the player? Or, who is the player: Mario? The Lakitu? Both? In exposing the Lakitu camera, the mirror also invites the player to reflect on the nature of watching in videogames. The player—along with the Lakitu—watches Mario, just as the videogame watches the player, carefully surveilling the stream of button pressing and joystick tilting so that it can instantaneously and continually respond to the player's input. But as we pause before the mirror our gaze is drawn to the Lakitu, the unexpected intruder who complicates our understanding of how we interact with the 3D gameworld.

[103] Klevjer makes this point in relation to the camera-body: "[...] the camera-body cannot be moved with the aid of the body as an external object, because we cannot look at our own eyes in the same way as we can look at our own hand. [...] As consequence, in a First Person Shooter, you *have to* learn to internalize camera control, or you will not be able to play the game at all." Klevjer, "Enter the Avatar," 31.

Like Benjamin's Begutachter, the Lakitu embodies the cyborgian spread of the Apparatur. Perched atop its cloud, the Lakitu carefully grips a makeshift apparatus: a camera hanging from a fishing rod. The lines blur between animal and technology as the lens of the film camera seems to morph into the broad, circular frames of the Lakitu's goggles, which protect the turtle's saucer-shaped eyes. The camera lens, like the Lakitu's eyes, is unblinking, forever focused on its subject, Mario.

Fig. 2. 3. Close-up of the Lakitu camera avatar.

An image of cyborgian symbiosis, the reflection reveals that through perpetual filming, the Lakitu has quite literally adopted the camera's perspective, as his eyes seem to mimic the camera lens. The resemblance between camera and camera operator mirrors that between the Lakitu and its operator: the player. Indeed, the Lakitu's outward appearance reflects the quintessential image of the gamer; a creature grappling with its handheld Apparatur, its attention ever-fixated on the onscreen avatar. Beyond their shared gaze, the Lakitu and the player both operate a camera that hangs from a wire. For the Lakitu, the wire is attached to the fishing rod in its clutches, for the player, the wire leads from the game camera to the controller in the player's hands. When looking into the mirror, it is not the hopping, sliding, endlessly active Mario that resembles the player, it is the little turtle, hanging back from the action, watching everything while carefully mastering—and bonding—with the Apparatur, whether fishing rod or game controller. In terms of functionality, to control the Lakitu is to operate the camera. Without the occasional mirror, the player might forget the Lakitu is even there, as the player's input for controlling the Lakitu equates to the direct manipulation of the game camera. In this sense, the cyborgian imagery of the Lakitu reflects its function, that is, the floating turtle stands in for—indeed, becomes—the camera. When discussing *Super Mario 64*, referring to the Lakitu is to refer to the camera, and vice versa. Moreover, "Lakitu" is the name of the entire species of floating turtles in the Mario-verse, which includes the camera operator in *Super Mario 64*—one Lakitu interchangeable with all Lakitus, likewise interchangeable with the camera, as well as the gamer. Ultimately, the Lakitu's appearance—an attentive turtle, nestled on a cloud, clasping his filmic apparatus—reflects the precarious nature of cyborgian symbiosis,

as embodied by the turtle/camera, the player/controller, and the Publikum/Apparatur: a camera, our window into a new world of perception, dangling from a wire.

Yet the full significance of the Lakitu camera is fully realized only once it appears in the presence of the onscreen Mario avatar. By bringing the typically off-screen Lakitu into Mario's onscreen domain, the mirror lays bare the essence of dual control: camera and avatar; perception and navigation; watching and walking. By anchoring the Lakitu camera to Mario while allowing it to travel along a prescribed range of motion, *Super Mario 64* showcases the prototype for all 3D control schemas that pair a player-controlled camera with an onscreen avatar. The arrival of 3D game worlds and the concomitant rise of dual control not only wrought the decline of 2D side-scrollers and point-and-click adventures, but also spurred on the next phase of perceptual evolution. Now, with control over the camera, it was the player who was responsible for framing the entire gameplay experience. While dual control afforded the player the freedom to look where they chose, it also tasked the player with an additional set of inputs (tilting, panning, zooming, etc.). If controlling the avatar tests the player's ability to confront the gameworld, and controlling the game camera tests the player's ability to frame the gameworld, then dual control tests the player's ability to harmonize these two sets of controls: game camera and avatar. The stark mise-en-scène of the mirror, then, belies the complexity of the player's task: to control two disparate entities, the Lakitu and Mario, as if they were one. In anticipation of the hurdles the player would encounter with dual control, the *Super Mario 64* design team decided to present the game camera via the Lakitu, a regular in the Mario-verse since the 1986 *Super Mario Bros*. In this way, Nintendo employed storytelling as a salve for the perceptual and dexterous growing pains brought on by the player-controlled

camera's strange point of view. For the player attempting to make sense of dual control, the Lakitu emerges as a digital Hilfskonstruktion, like the figures from Benjamin's avatarial framework whose character traits and professional identities help tell the story of an evolving human sensorium. Just as Benjamin's surgeon and healer enact the development of the Testleistung, so too the Lakitu and Mario announce the introduction of dual control.

The Lakitu and Mario share a storied, if troubled past. The Lakitu first entered the stage as a Mario-killer who rained down enemies from his cloud above in Nintendo's seminal work from 1986: *Super Mario Bros*. Starting in 1992, the Lakitu returned to referee the races in the *Mario Kart* franchise. In addition to officiating, the Lakitu referee comes to the aid of crashed racers—even Mario—by hauling them from pits, ditches, and bodies of water. At advanced stages in *Super Mario 64*, the Lakitu inhabit the gameworld once again as antagonists, so the player is tasked with protecting Mario from the onscreen enemy Lakitus with the aid of the off-screen camera Lakitu. That the game camera of *Super Mario 64* takes the shape of Mario's longtime enemy and occasional officiant reflects the complexity of the player-controlled camera as an addition to the gameworld. As embodied in the dynamic between Benjamin's patient and surgeon avatars, the transition into a new realm of perception can be a traumatizing, if emancipatory, process. Though the introduction of the player-controlled camera increased player agency and deepened the sense of immersion, it was accompanied by a slew of side effects including dizziness, vertigo, and feelings of disorientation that might lead some players to abandon the game altogether. The narratological shading of the *Lakitu* game camera captures the awkwardness of the *Super Mario 64* controls, specifically, and player-controlled cameras in (early) 3D games, generally. Upon its arrival, dual control was widely

panned as awkward and frustrating by critics and players alike. Yet dual control eventually became the industry standard, a testament to an entire generation of designers and players working out (or around) the bugs of this system.[104] A trailblazing force for the institutionalization of dual control, *Super Mario 64* distinguished itself by introducing the player-controlled game camera as a character in the gameworld rather than an extradiegetic floating piece of equipment.

Like Benjamin's depiction of the Testleistung in the exchanges between job applicant and evaluator, or actor and film director, Nintendo presents dual control as an oppositional interaction between Mario and the Lakitu. Now, forced to work together, former adversaries must surmount years of bad blood to become a successful team. The course of Mario and the Lakitu's continued narrative in *Super Mario 64* emerges as the player grapples with dual control. For many, learning to use dual control amounts to a story of persistence and compromise; a story wrought with tension but one that eventually arrives at a workable—even pleasant—equilibrium for Mario and the Lakitu. For others, dual control leads to a tale of disorientation and frustration, one that repels the player from the gameworld, leaving Mario and the Lakitu in stalemate. By opting to introduce the camera as the Lakitu instead of one of Mario's many well-established friends, *Super Mario 64* achieves a delicate synchronicity between the way the game tells its story and the way the game is played.

The game camera's presence in the story world reveals not only how Nintendo's designers think about the camera, but, more importantly, how they want *the player* to think

[104] In *A Play of Bodies*, Keogh dedicates chapter 3, "With Thumbs in Mind," to the evolution of controller technology, which includes the advent and standardization of dual control.

about the camera. Like Mario, the Lakitu is an avatar, a player-controlled figure with physical presence and narratological weight in the gameworld. Though the Lakitu's presence is limited to its reflection in the mirror, as well as brief appearances in a cutscene and a tutorial (discussed in detail below), the floating turtle is presented as a playable character complete with its own control schema, much like the star of the game, Mario. Drawing on the player's familiarity with avatarial systems, Nintendo designers nudge the player to approach dual control as the simultaneous manipulation of two avatars, one central and onscreen, the other secondary and (predominantly) off-screen. Just as Benjamin employs the Begutachter avatar to demonstrate the camera's impact on the spaces of modernity, so too Nintendo introduces the Lakitu avatar to make sense of the player-controlled camera in 3D digital worlds. Both Benjamin and Nintendo value the avatar as a conceptual guide, one that holds the Publikum's hand as they cross the technological threshold into a new world of perception. Indeed, the Begutachter and the Lakitu endow a perspectival paradigm shift with the familiarity of anthropomorphic contours, thus emphasizing the visceral physicality in the act of seeing. But the Lakitu is there not just to help the player make sense of the game camera; the Lakitu is there to teach the player how to use the camera and, in turn, how to exercise dual control and advance through the gameworld.

Playing, Testing

To successfully reclaim the Power Stars and rescue Princess Peach from Bowser, the player must master dual control, developing an adroitness which flows between the controller and the spatial choreography of the Lakitu camera and the Mario avatar in the gameworld. Marrying the inputs of seeing and moving, the gameplay experience under dual control

becomes one of continual positioning and repositioning of the camera in relation to the avatar's body, which is also constantly changing position. Dual control is a never-ending negotiation of space and perspective; if Mario bounds to the right, then the Lakitu should swing to the left in order to see where Mario might land. But if the Lakitu camera swings too far to the left, then Mario's landing might be visually obscured to the player. Finding the optimal angle from which to film Mario is a matter of life and death in a gameworld where sticking a landing on a swinging platform might be the only way past a bottomless pit. As the player encounters a flow of enemies and obstacles that increase in number and difficulty, mastering dual control is therefore an ongoing and constant necessity. To achieve spatial harmony between the camera and the onscreen avatar is a challenge the player feels their way through with every tilt of the joystick and press of the button, a process Keogh refers to as "a learned mapping of the body on the input device."[105] Like Benjamin's Examinator, the player—who has mastered dual control—develops a mode of attention "through habit" and "tactile reception," as audiovisual stimuli and dexterous responses are trained to fire instantaneously at one another in a seamless feedback loop.[106]

As the player coordinates the game camera and onscreen avatar to achieve logistical advantage in the gameworld, strategic movements occasionally reveal their aesthetic potential. The gameplay that emanates from dual control is not only charged with the choreographic complexity of a Balanchinian pas de duex, but also with the cinematographic power of a Wellesian tracking shot. The rise of videogame spectatorship—from Twitch to eSports to

[105] Keogh, *Play of Bodies*, 95.
[106] Benjamin, "Work of Art," 268-9.

platforms for the photo-sharing of personal gameplay experiences—attests to the broad interest in the entertainment and aesthetic value in watching others play videogames, especially players who have achieved harmony between the camera and the onscreen avatar.[107] Under dual control, when the player propels the Lakitu camera into the sky, Mario is reduced to a dot on the landscape; when the player slides the camera to the avatar's feet, Mario looms large like a heavy in a noir film: 3D gameplay as cinematography 101. As with Benjamin's reading of the cinematic image, the gameplay afforded by dual control is informed by the interpenetration of artistic and scientific impulses. Moments of grace and beauty are enhanced by the precision of a pressure-sensitive game controller, just as the repetitive haptic training of dual control erupts in cinematic flourishes—even during the most banal sequences of gameplay. Dual control, then, awakens the player to the raw aesthetic potential of capturing a body in motion—from the most fantastic scenarios (Mario leaping onto a swinging platform) to the everyday (an avatar strolling down a metropolitan alleyway). By presenting the act of *watching* as the Lakitu camera, controlled with the right hand, and the act of *walking* as the Mario avatar, controlled with the left hand, *Super Mario 64*'s trailblazing iteration of dual control forces the player to simultaneously de- and reconstruct the bonds between perception and navigation—two acts that are inextricably interwoven, yet presented as distinct. The avatars of dual control, like the surgeon and the psychoanalyst of Benjamin's avatarial framework, wield the power to rewire the player's sensorium through the haptic conditioning

[107] The popularity of eSports and platforms like Twitch correlates with an increasing interest in player-drive photo-sharing of in-game screenshots—sometimes touched up with photography software like Photoshop. The popularity of photo/screenshot-sharing among fans has inspired many titles to now offer "Photography Modes" which allow players to adjust exposure and framing by using in-game photography software. This phenomenon will be further discussed—in the context of *Watch_Dogs 2*—in the subsequent chapter of this study.

that comes from learning to harmonize the game camera and the onscreen avatar. As the Lakitu's pans and zooms become second nature, dual control shapes not only how gameworlds are seen and explored, but also the terms on which they are appreciated.

The striking mise-en-scène in the mirror sequence hinges on the inherent contradiction of dual control: it is blatantly simple yet immensely complex, like the relationship between the Lakitu and Mario. The mirror passage reveals the competing impulses—aesthetic and scientific—at the core of the gameplay experience. Surprising the player with the Lakitu camera's reflection, the sequence has garnered fan intrigue and approval for decades with its cinematic breaking of the fourth wall. But the sequence—defined by the calculated attention encircling the Lakitu, the player, and the game console—also reveals the medium's scientific tendency toward observation and analysis: tendencies of the Testleistung. For Benjamin, the images conjured by the film camera expose the Testleistung as a ubiquitous and transformative life blood of modernity. The Testleistung expresses itself through the film camera as calculated measurement, clinical analysis, and systematic inspection, all of which contribute to the liquidation of the aura. As the film camera's medium-specific capabilities—with its "swooping and rising"—directly work on the audience, the human apparatus evolves: seeing becomes *testing*. Handing the camera to the player, Nintendo relies on the Publikum's long-since adopted mode of cinematic perception, which is leveraged to make sense of—and even master—the Lakitu camera. Indeed, the Lakitu's backstory as cameraman, the in-game presence of the camera itself, and the game's use of cinematic gestures (cross- and iris fades, zooms, and voice over) awaken the player's cinematic perspective throughout the gameplay

experience.[108] Rune Klevjer addresses the broader influence of cinema on the 3D worlds of videogames like *Super Mario 64*:

> [...] in 3D computer animation, mathematically modelled environments become perceptually accessible to us in a way that is similar to how we are used to experiencing physical environments: not as animated moving images, but as autonomous spaces and objects shot by a camera, projected through a camera lens onto a two-dimensional plane. [...] Visual realism in 3D animation, therefore, is premised on cinematic vision.[109]

As Nintendo translates the videogame's algorithmic interactivity into cinematic visuality, the Testleistung reemerges in the digital age: playing becomes testing. Interactivity—the heart of the videogame medium—is the digital incarnation of the Testleistung, as careful observation and calculated responses constitute the feedback loop forged between the player and the game. This incessant two-way *testing* is made manifest by the wire that links the player, the game controller, and the videogame console—as symbolized by the Lakitu, his fishing rod, and film camera. Dual control pushes the player to test the limits of the camera, to test the physics of the gameworld, and to test the capabilities of the avatar; and the player is tested by dual control in return: a simultaneous test performance and performance test. This cyborgian tug-of-war, where the Testleistung surges from the game's algorithmic code and crashes against the player's perceptual apparatus, and vice versa, takes shape in the avatars of dual control.

In his depiction of *testing* as the binding force of modern life, Benjamin pays special attention to the Testleistung's impact on human bodies. Through their physical appearance and character traits, Benjamin's avatars embody the ways in which cinematic perception shapes the human sensorium. Lessons learned from Benjamin's filmic avatarial framework chart pathways

[108] The Lakitu's role as cameraman in *Super Mario 64* will be discussed below in relation to the camera tutorial sequence.
[109] Klevier, "What Is the Avatar?,"172.

for thinking through the lasting impact of the player-controlled camera, which places the "dynamite of the split second" in the hands of the player.[110] Under dual control, the Begutachter's perceptual testing manifests itself in the measured examination of the gameplay experience that reduces the player's performance down to points, coins, achievements, and segments of time. The player-controlled camera enhances the surgical reach of the lens, which now reorganizes the perceptual apparatus with the help of cognitive science and biofeedback technology.[111] The psychoanalytic avatar's gaze is ever-expanded by the ubiquity of game cameras that are both wielded by, and fixated on, the player and their environs. Indeed, the crossfire of cameras in the gameworld has spilled into the player's home, as platforms like Twitch and YouTube have turned the focus of the camera on the gamer. With the player onscreen alongside the avatar, the coins and experience points that measure gameplay performance now structure the evaluation of the player's *test performance* as well, i.e. through the number of clicks, views, and comments amassed on one's streaming channel. Alongside the rise of live streaming gamer platforms, the explosion of eSports has demonstrated the demand for a combination of large-scale spectacle, participatory culture, and global competition. At the eSports event, the Testleistung blends virtual screen spaces with physical realities as a contemporary amalgamation of three sites of Benjamin's modernity: the cinema, the sporting event, and the gambling hall. And the player's expanded (sense of) agency afforded by the haptic testing of dual control reflects the broader transition from the hierarchical work

[110] Benjamin, "Work of Art," 265.
[111] Keogh's research on embodied perception and the evolution of gamepad technology overlaps in productive ways with the cognitive scientific work in interface design being carried out by Games for Emotional and Mental Health (GEMH) at the Behavior Science Institute at Radboud University.

structures of the industrial age to the independent knowledge work that defines the digital age. Distilling the broad impact of the Testleistung on the scale of human perceptual evolution, Benjamin's avatars account for sweeping social change that registers in everyday, lived experience. As Benjamin demonstrates, avatars are not just fodder for conceptual exploration. With their anthropomorphic familiarity and haptic sensitivities, avatars are also intuitive guides for a Publikum facing new modes of perception brought about by historical change.

Haptic Feedback and Camera Bodies

By following the path set out by the Begutachter and its avatarial counterparts, Benjamin's reader learns the significance of the film camera by *sensing* the lens' impact on the human body. The progression of avatars in the artwork essay, from the Begutachter to the Examinator, attests to the nuance with which Benjamin transforms the implicit lessons of the film camera into explicit lessons for his reader. At first glance, the videogame medium seems to take a more direct approach to educating its audience. Videogames often begin with a tutorial, a short sequence in which the player is taught how to play. Widely known to be overtly didactic and expressly utilitarian, tutorials often disrupt any sense of immersion established by the game's story world, aesthetic ambience, or level design. All too often stitched crudely onto the central narrative, tutorials are typically presented as a low-stakes training mission where the player is guided through a series of tasks that reveal the basic capabilities of the avatar and characteristics of the gameworld. A fundamental condition of the videogame medium—that players must provide input—dictates that the gameplay experience begin with a tutorial, or a *test*, to drill the player into adopting the parameters set out by the designers and dictated by the medium. For demanding that the Publikum adopt a particular mode of play and perception,

the tutorial is the videogame's most direct expression of the Testleistung. To 'pass' the tutorial and advance to the game proper, the player must obey a series of commands: press the "A" button to jump; hold the "B" button to run; press the "←" button to pan the camera to the left. Thus, dexterous actions are coupled with algorithmic functions that appear as audiovisual cues, i.e. Mario jumps or the Lakitu camera pans to the left. While the player initially learns to interact with and see the gameworld via the tutorial, the learning process does not end there. A close look at the Lakitu camera tutorial reveals that the player's learning curve is spread across a variety of channels which unfold throughout the gameplay experience.

Consistent with its immersive design, *Super Mario 64*'s opening sequence blends an introductory cutscene with the first few moments of gameplay and two brief tutorials: one for the Mario avatar and one for the Lakitu camera.[112] The introductory 50-second cutscene begins with an image of Princess Peach superimposed over the image of a letter she has sent to Mario. Through voice over, the player hears Princess Peach beckon Mario to join her in her castle. The letter and Peach's image fade into the blue sky above her castle when the peaceful moment is disrupted by the Lakitu who flies into the frame, floating on a cloud and armed with his camera. The Lakitu's entrance is jarring, all the more so as the turtle's bulging eyes and matching camera lens are pointed directly at the player. Further emphasizing the Lakitu's intrusion, a high-pitched siren accompanies the aerial observer as he floats through the gameworld. After a few seconds staring out at the player, the Lakitu darts toward Peach's castle, acrobatically banking and diving, while the game camera loosely follows behind him and the siren wails on.

[112] A cutscene is a non-playable scene which 'cuts' away from the gameplay experience. Cutscenes can range in length and are also described as cinematic, in that they unfolds like a segment from a linear audiovisual medium like a film or television show. The purpose of a cutscene is typically to establish, advance, or conclude the story.

Once the game camera and the Lakitu have circumnavigated the castle, they swoop toward a nearby warp pipe, from which Mario springs forth, marking the eponymous hero's entrance in the gameworld. As Mario appears, the floating Lakitu and the game camera hover toward the same perspectival space. At the moment the Lakitu and the game camera share the same perspective, the player is given control of both the Lakitu/game camera and the Mario avatar. The message is clear: the Lakitu and the game camera have now become one.

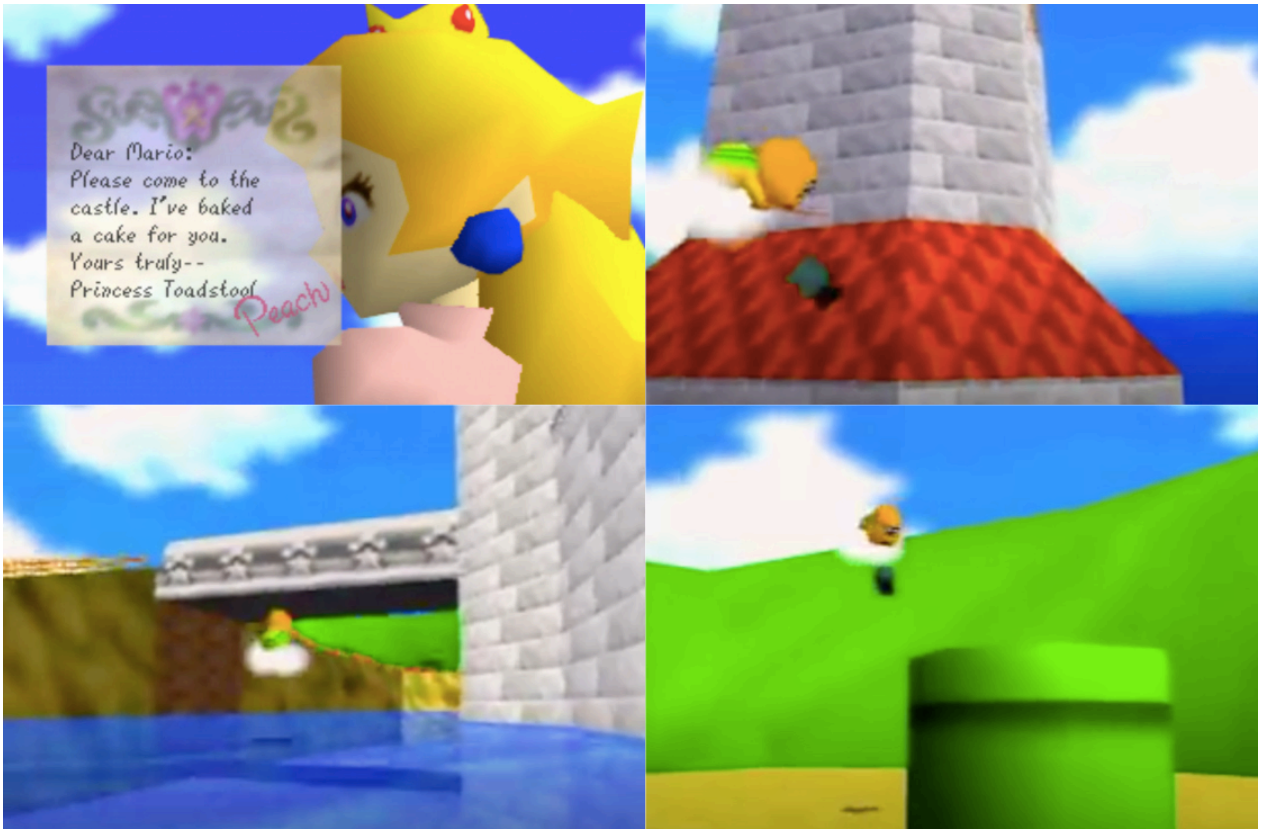

Fig. 2. 4. Screenshots from the Lakitu camera's appearance in the opening cinematic sequence.

Fig. 2. 5. In the Lakitu's first appearance in Super Mario 64, he directs his camera at the player.

Before the player can navigate the avatar toward Peach's castle, Mario's proximity to a wooden sign triggers the following text:

> Ciao! You've reached Princess Toadstool's castle via a warp pipe. Using the controller is a piece of cake. Press A to jump and B to attack. Press B to read signs, too. Use the Control Stick in the center of the controller to move Mario around. Now, head for the castle.[113]

The text is straightforward, a testament to Nintendo's intuitive game design and the cultural predominance of Mario, whose skill set was already well known by a broad gaming audience in 1996. A markedly more complex tutorial sequence accompanies the Lakitu. As the player navigates the Mario avatar toward the castle, his arrival on the drawbridge abruptly halts the gameplay and triggers the entrance of a second Lakitu camera, along with the following text:

> Good afternoon. The Lakitu Bros., here, reporting live from just outside the Princess's castle. Mario has just arrived on the scene, and we'll be filming the action live as he enters the castle and pursues the missing Power Stars. As seasoned cameramen, we'll be shooting from the

[113] "Lakitu," Mariowiki, accessed May 25, 2019, https://www.mariowiki.com/Lakitu.

> recommended angle, but you can change the camera angle by pressing the C Buttons. If we can't adjust the view any further, we'll buzz. To take a look at the surroundings, stop and press C. Press A to resume play. Switch camera modes with the R. Signs along the way will review these instructions. For now, reporting live, this has been the Lakitu Bros.[114]

While the second Lakitu is present, he is accompanied by the same siren sound that marked the entrance of the first Lakitu (who is now the player-controlled game camera). As soon as the 'tutorial' Lakitu floats away, the player is free to explore the gameworld.

Fig. 2. 6. The Lakitu camera tutorial.

The Lakitu dominates all aspects of the introductory sequence: the cutscene, the first seconds of gameplay, and the tutorials. Unsurprisingly, Mario and Princess Peach appear at the start of the game, however the Lakitu's robust presence is unexpected. Nintendo accents the

[114] *Ibid.*

turtle's intrusion into Mario's world in several ways. Appearing after Peach's voice over and before Mario's grand entrance, the Lakitu effectively elbows his way in between the two central figures of the narrative. Upon arrival, the Lakitu draws even more attention to himself, first breaking the fourth wall, then eating up the lion's share of screen time during the cutscene. All the while the Lakitu demonstrates his impressive aerial capabilities as he darts high and low through the air, performing gravity-defying maneuvers beyond Mario's terrestrial reach. The Lakitu's opening gesture—training his eyes and camera on the player—signals the active and substantive role of the camera in the gameworld. Pointing the camera into the player's living room, the Lakitu foreshadows the gameplay experience: the player will be filming *themselves* at play, framing their own attempts at navigating Mario on his search for Princess Peach. After the brief Mario tutorial, the player begins to play, making their way to the castle as instructed. Seconds later, the tutorial Lakitu swoops down and blocks Mario's path, bringing gameplay to an abrupt halt in order to explain the camera to the player. Within the game's opening moments, the Lakitu first 'interrupts' the cutscene, only to then interrupt the first seconds of gameplay. Interestingly, Nintendo addresses the expansion of the Apparatur—a more robust and interactive game camera—by both emphasizing and negating its presence. On the one hand, Nintendo disguises the camera in diegetic trappings so as to maintain a sense of aesthetic continuity in the gameworld, while on the other hand, Nintendo breaks the fourth wall to confront the player with the camera's presence and point to a noisy backstory featuring a second set of avatars, the "Lakitu Bros." In their divergent introduction of the Lakitu camera, Nintendo's strategy straddles interruption and immersion, and nowhere is this provocative contradiction more apparent than in the text of the Lakitu camera tutorial.

As opposed to the message of Mario's tutorial, which was posted on a sign by an unknown author, the lesson of the camera tutorial comes directly from the Lakitu Bros. themselves. They start by announcing their reason for being in the story world: "The Lakitu Bros., here, reporting live from just outside the Princess's castle." This greeting covers the utilitarian aspects of the tutorial in diegetic trappings. By presenting the game camera as part of a news team, Nintendo hints at the self-examination inherent in dual control, where the player's camera simultaneously creates and justifies the act of gameplay by instantaneously rendering it worthy of being filmed. Pairing the instructions for the camera with the Lakitu backstory, the tutorial not only explains *how* to use the camera, but *why* the camera is being used in the first place. Like Benjamin's avatars, the Lakitu Bros. give anthropomorphic familiarity—and even purpose—to a novel mode of perception that emerges from a historical turning point. Like the entanglement of the Publikum and the Apparatur, the tutorial describes a cyborgian symbiosis in which the player and the "seasoned cameramen" will share filming duties, trading off when necessary. Once again breaking the fourth wall, the Lakitu Bros. directly address the player in the tutorial, adding a level of complexity to the avatarial connection. Unlike Mario, who seems blissfully unaware of his role in the proceedings, the Lakitu Bros. are self-aware executors of the game's function and narrative. Of course, Nintendo invites comparison of the avatars, as the formulation "Lakitu Bros." conspicuously mirrors the perennial "Mario Bros." title, in yet another deliberate gesture to incorporate the camera team in the Mario-verse.

Though the Lakitu Bros. speak directly to the player in the tutorial, they announce that further communication will be purely haptic: "If we can't adjust the view any further, we'll

buzz." The "buzz" refers to the feature of the Nintendo 64 controller that provides haptic feedback by vibrating intensely—cutting-edge gaming technology in 1996 and standard for most controllers ever since. In *Super Mario 64*, whenever the player pushes the Lakitu camera to the limits of its reach, the controller literally buzzes—a visceral, sometimes startling, manifestation of the Testleistung. While it is questionable whether the player fully grasps the Lakitu's verbal tutorial message—the player is free, after all, to skip past the Lakitu's words—, it is very clear, however, that the player has no choice but to fully grasp the Lakitu's haptic message, as it reverberates through the controller the player grips in their hands. For most of the gameplay experience, the player's interaction with the camera surges from the buzz of the controller, to the press of the button, to the swoop of the camera, and back again. This haptic feedback loop imbues a distinctly tactile edge to the player's perceptual understanding of the gameworld, what Keogh refers to as an "embodied literacy." While the physics of Mario's interaction with his surroundings are straightforward, the physics of the interactive camera must be mapped out in the hands of the player. When Mario collides with an object, the interaction unfolds before the player's eyes. When the Lakitu camera collides with an object, the interaction occurs offscreen, in the hybrid space between the mind's eye and the player's hands. Ultimately, the player must learn to rely on the Lakitu's tactile message to feel out the spaces of embodied perception.

The Lakitu's buzz is also linked to the player HUD (heads up display): the extradiegetic, onscreen display of vital player information. The *Super Mario 64* HUD features the number of lives Mario has in the upper left corner of the screen and the number of Power Stars he has collected in the upper right corner. In the lower right corner, the HUD features a film camera

icon next to a Lakitu icon, which indicates that the player has control of the game camera—an important feature left out of the tutorial. Beyond its functional value, the player's HUD reveals what Nintendo believes the player needs to know: the number of Mario's lives dictates whether the player can continue playing; the number of Power Stars signals the player's progress in the game; the film camera and Lakitu icons signal whether or not the player can interact with the camera: life, progress, perspective.

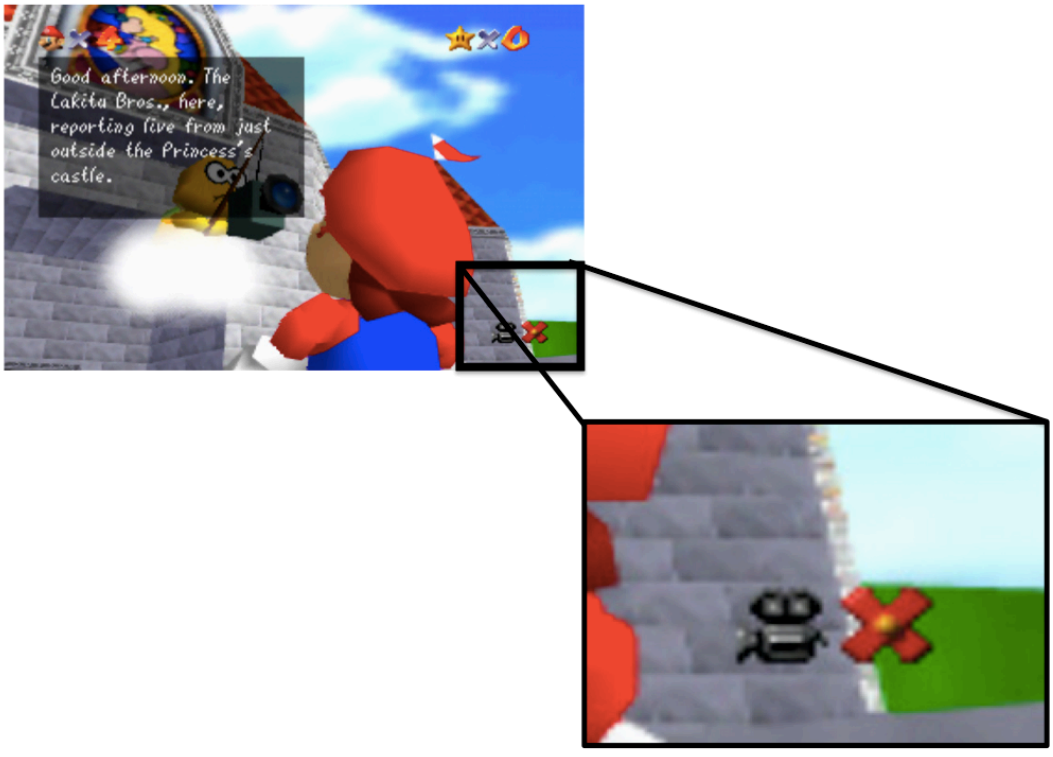

Fig. 2. 7. Super Mario 64 HUD signaling that the Lakitu camera is unavailable for the player to control.

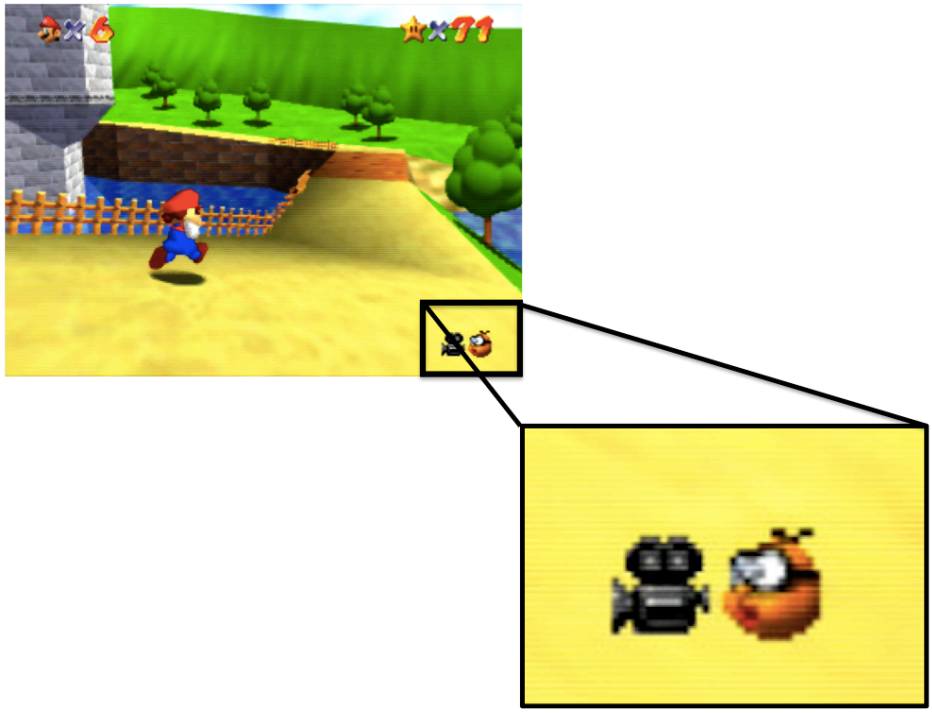

Fig. 2. 8. Super Mario 64 Hud signaling that the Lakitu camera is available for the player to control.

When the player is temporarily denied control of the game camera (i.e. during a cutscene), the film camera icon remains, but the Lakitu icon is replaced with a red "X". The Lakitu's symbol, then, does not connote the camera: it connotes the interactivity of the camera, the malleability of the digital image, and the videogame's demand for player input. Yet, the close placement of the icons reinforces the cyborgian bond between the two entities: the Lakitu and the film camera. Opting to iconize the game camera with the image of a *film* camera, Nintendo leans on an established medium while finding their footing at the forefront of a medium in the flux of rapid growth.

With its film camera icon on the HUD and the Lakitu's haptic buzz, *Super Mario 64* persistently reminds the player that the videogame medium fuses the screen spaces of the cinema with the navigability of architecture. While Benjamin compares film and architecture to

demonstrate the tactile impact of moving images on mass audiences, he simultaneously lays the blueprint for the medium to come—the videogame. Through haptic feedback technology, videogames extend and intensify the "tactile quality" of film by demanding that the Publikum actively engage with the image. The Lakitu's buzz might shock the player, but the videogame's true shock effect is interactivity, which creates—and demands—constant observation, ubiquitous cameras, responsive screens, branching narratives, procedurally-generated worlds, global connectivity and competition, haptic technologies, and streams of data to be measured, analyzed and displayed.

Conclusion

To help players make sense of *Super Mario 64*'s interactive camera, Nintendo employs an array of strategies, from staging a fourth wall-breaking play with mirrors, to flashing a persistent iconized reminder on the player's HUD, to harnessing haptic feedback technology. The Lakitu avatar is the conceptual-lynchpin that makes all of these strategies work. At the dawn of a new phase of perception, Nintendo—like Benjamin—relied on the avatar to express the nuance and power of learning to see the world anew. In the 25 years since *Super Mario 64*, player-controlled cameras have become the norm and dual control the industry standard. The faceless, nameless player-controlled cameras of today have long since replaced the Lakitu avatar, with all his backstory and aesthetic detail. In the history of dual control's rise to industry preeminence, the Lakitu's brief but provocative role as a growing pain of perceptual evolution is reflected in the design saga of the handheld controller. The Nintendo 64 controller was the last

step leading to the predominance of the dual thumbstick controller—one thumbstick to control the camera, the other for the onscreen avatar.

Fig. 2.9. The Nintendo 64 controller, with one thumbstick.

Fig. 2.10. The Playstation DualShock controller, with dual thumbsticks, introduced in 1997.

Much more than just a controller scheme, dual control is the perceptual force that has shaped the contours of virtual gameworlds just as it has shaped the physical contours of gaming hardware. The Nintendo 64 controller bears the mark of evolutionary change: an awkward set of directional buttons, known as the C-Pad, occupy the space where a second thumbstick would eventually be installed. The Lakitu avatar, like the C-Pad, is an echo of an industry in the throes of a historical turning point. Now, players control the game camera as a matter of course, just as they control the cameras in their phones, cars, and drones. Dual control has become habit.

It is no surprise that the flâneur has returned amidst these developments. On the one hand, dual control encourages mainstream gaming trends toward incessant measurement, spectacular calculation, and an all-consuming competitive spirit born of achievement and utility. On the other hand, dual control affords digital flânerie, where watching is endowed with haptic energy, and walking—slowly—is how one might choose to see the gameworld. Indeed, digital flânerie carefully examines the self-examination inherent in dual control, especially in the interplay of its constituent parts: walking and watching. As the mirror in *Super Mario 64* reminds us, the videogame experience is deeply shaded by multivalent acts of watching and being watched. Identifying when these acts of watching give way to surveillance or to flânerie is the subject matter of the following chapter. The core concepts of this chapter—the cyborgian media ecology; the Testleistung and the camera avatar; and tactile optics and haptic feedback technology—will provide the theoretical base for the subsequent chapter, which looks to the fields of surveillance and surveillance studies to make sense of the watchful tendencies of the videogame medium—including the phenomenon of digital flânerie.

CHAPTER 3

FROM THE WINDOW TO THE *WATCH_DOG*: WALTER BENJAMIN, SURVEILLANCE AND FLÂNERIE

Introduction

Game Studies scholars Jennifer Whitson and Bart Simon begin a special issue of the online journal *Surveillance & Society* with the following: "There is something primordial about the relationship between surveillance and games."[115] Their claim is evidenced by the multitude of games, play strategies, and genres that are all heavily influenced by surveillance. Though Whitson and Simon's assertion spans all forms of play and games, it holds especially true for videogames. Both audiovisual and interactive, videogames allow for digital gameplay experiences of multivalent surveillance. In most contemporary videogames, players constantly and closely surveille interactive images, from HUD radar that locates nearby police units in *Grand Theft Auto* to Thermal Imaging of ground targets from the US Air Force AC-130 Spectre in *Call of Duty*. Players study the gameworld to gain advantage over their opponents, who—whether algorithmic code or other players—are also running their own surveillance to outmaneuver and defeat their opponents. The videogame relies on algorithmic 'surveillance' as it perpetually monitors and responds to the player's every move—an interactivity between the player and the videogame that is necessary for the medium to function. Following Whitson and

[115] Jennifer R. Whitson and Bart Simon, "Game Studies meets Surveillance Studies at the Edge of Digital Culture: An Introduction to a Special Issue on Surveillance, Games and Play," *Surveillance & Society* 12, no. 3 (2014): 303-319, at 309.

Simon, this chapter employs the widely-accepted and productively broad understanding of surveillance articulated by Torin Monahan as "the monitoring of people or groups in order to regulate or govern their behavior."[116] When applied to the world of gaming, Monahan's definition covers a swath of watchful acts from individual instances of *Fortnite* players spying on one another to the systematic player-data collection carried out by most major game developers. Though all videogames are interactive, and therefore surveillant, 3D videogames employ a distinctly surveillant operational language in dual control, which binds players to the gameworld through the constant and haptic manipulation of a camera in tandem with an avatar body. Dual control establishes a continual, tactile flow of surveillant attention that surges through screens, cameras, and bodies—of both the avatar and the player.

In 1998, the success of a trio of games—*Metal Gear Solid*, *Tenchu*, and *Thief*—set the parameters for a new genre: the stealth game. Rather than goad players into the frenetic stimulation of direct conflict, stealth games challenge players to move slowly as they avoid confrontation, sneaking through the gameworld and alluding enemy surveillance. That the formation of the stealth genre coincided with the advent of 3D gameworlds and dual control is no surprise. Stealth games leverage the player-controlled camera as a surveillant weapon that endows the acts of watching, hiding, and sneaking with visceral power and dexterous challenge.[117] Yet stealth games simply capitalize on what is inherent to all 3D games: the

[116] John Gilliom and Torin Monahan, *SuperVision: An Introduction to the Surveillance Society*, (Chicago: University of Chicago Press, 2013), 9.

[117] From Alexander Gilyadov, "In the Shadows: A Brief History of Stealth Games," *CGMagazine,* October 20, 2015, https://www.cgmagonline.com/2015/10/20/in-the-shadows-a-brief-history-of-stealth-games, regarding the Stealth Genre's establishment in relation to the success of Hideo Kojima's wildly popular and trend setting *Metal Gear Solid* franchise: "[*Metal Gear Solid*] received a direct sequel three years later, but it wasn't until well into the 1990s and early 2000s that the genre started to come into its own." Casey Alkaisy at Gamasutra traces the birth of the Stealth genre to a constellation of games that were released in 1998, all of which take place in 3D

natural tension of bodies encountering one another in navigable space, a tension heightened by the camera's framing. Favoring stories and settings steeped in spies and intrigue, stealth games exploit the surveillant potential of dual control by saturating the gameworld with surveillance technology, oftentimes including complex systems of motion detectors, patrolling guards, and—most prominently—surveillance cameras, all of which the player might bypass by mastering their control over the game camera.[118] *Super Mario 64*, hardly a stealth game, emphasizes its surveillant potential by drawing attention to the introduction of the player-controlled game camera in a variety of ways, from directly addressing the cameraman-avatar to signaling the camera's presence with an icon on the interface. In particular, *Super Mario 64*'s mise-en-scene in the mirror hall—where the ever-present and unblinking eye of the player camera is exposed—gives us a visceral reminder of the "primordial" connection between surveillance and games.

Super Mario 64's player-controlled camera appears in the gameworld as the Lakitu avatar, a narratological game design conceit that not only addresses why the camera is there, but also how it works. Floating on a cloud, the Lakitu is the only character in the Mario-verse capable of mimicking the movements of the player-controlled camera, which can hover in place and dart forth in any direction at a moment's notice. If not only for diegetic consistency, the Nintendo design team might have looked to the Lakitu for conceptual inspiration because there

environments, two of which—*Metal Gear Solid* and *Tenchu*—rely on dual control: "The stealth genre really took off in 1998 when three core stealth games were released that same year. They were *Tenchu: Stealth Assassins*, *Metal Gear Solid* and *Thief: The Dark Project*." See Casey Alkaisy, "The history and meaning behind the 'Stealth genre,'" *Gamasutra Blog,* June 10, 2011, https://www.gamasutra.com/blogs/CaseyAlkaisy/20110610/89616/The_history_and_meaning_behind_the_Stealth_genre.php.

[118] Gilyadov, "In the Shadows." These dynamics inform the essence of the gameplay of Stealth Games, a popular genre that revolves around the acts of sneaking and not being spotted by others.

was no real world technology in the mid-1990s that approximated the movements of the player-controlled game camera. Neither a plane nor a helicopter with a mounted camera could propel forward, reverse on a dime, then just as quickly stop and hover in place—for hours on end—like the player-controlled camera. Only with the advent of drone technology could something like the Lakitu game camera be realized in the physical world. Thus, the Lakitu camera (and the first wave of player-controlled game cameras) anticipated the widespread commercial use of drone technology that began around 2006—a decade after the release of *Super Mario 64*. Not only similar in its aeronautical functionality, the Lakitu camera has a developmental history that foreshadows the historical trajectory of drone technology, as it began in the military sphere and then made its way to the mainstream media and the broader civilian market.[119] So too the Lakitu originated as a war machine and then expanded its application across the Mario-verse, from filmmaking to officiating sporting events to news broadcasting. The drone, like the Lakitu camera, signaled a vast expansion of perspectival potentialities across spaces both real and virtual; an expansion that offered an infinitely malleable perspective to match the digital medium's interactive capacity.

In the fall of 2016, two decades after *Super Mario 64*'s Lakitu camera foreshadowed drone technology, Ubisoft publicized the release of *Watch_Dogs 2* (*WD2*) as an open world experience that gives the player control over a variety of surveillance technology, including air bound drones.

[119] Bart Custers, *The Future of Drone Use: Opportunities and Threats from Ethical and Legal Perspectives*, (Berlin: Asser Press Springer, 2016).

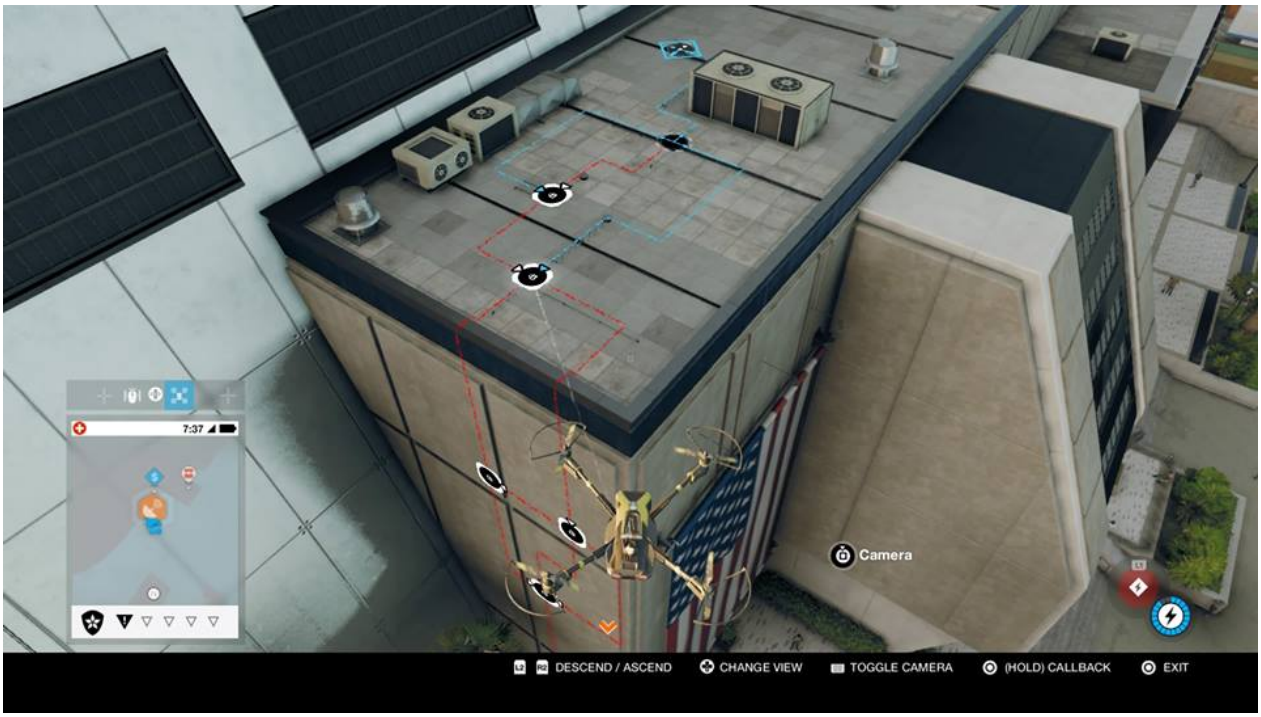

Fig. 3. 1. The player controls Marcus Halloway's quadcopter drone as it hovers above a NASA space center.

Fig. 3. 2. In a cut scene, Marcus beholds his newly acquired quadcopter drone, around which several key narrative strands unfold.

While the Lakitu avatar blankets the player-controlled 'drone' camera with diegetic trappings from the fictional world of Mario, the photorealistic playable drones of *WD2* simulate the capabilities and physics of real world drone technology—specifically the DJI Phantom. From the digital firmament to terrestrial skies and back again, the migration of drone technology from *Super Mario 64* (where drones are conjured as fantastical imaginings) to *WD2* (where drones are featured as realistic simulations) provides a striking example of the overlap between the worlds of gaming and surveillance, an overlap labeled by Whitson and Simon as "primordial." Consistent innovation in the player-controlled camera exposes *Super Mario 64*'s influence on open world games, especially *WD2*, where a drone's eye view of the world is not only built into the game's design and the contours of the game's controller, but also shapes the player's approach to, and perception of, the gameworld. A harbinger of dual control's predominance throughout gaming culture, *Super Mario 64* helped set the standard for player-manipulation of the camera in 3D worlds—especially open worlds—where acts of watching others and being watched are a visceral and haptic source of challenge, conflict, and play. Indeed, dual control teaches the player to approach the gameworld like a hovering drone, forging a perspective that offers a free range of motion in proximity to avatar bodies while demanding constant haptic feedback via the controller. Contributing to the open world's sense of *openness*, the player-controlled camera affords a free-wielding perspective of the game's (urban) environments, as more perspectival control enhances the player's sense of navigational agency: the freedom to walk anywhere and the freedom to look anywhere provide a visceral, geospatial expression to the algorithmic agency promised by the digital medium.

While *WD2*'s drones are a testament to the lasting imprint of the Lakitu camera on broader gaming culture, they also signal a shift toward a free-roaming player perspective that is uncoupled from the central avatar—thus initiating a break from the bonds of dual control. Beyond its simulated drones, *WD2* features a spectrum of surveillance technology that amplifies the observational reflexes trained by dual control while opening up perspectival potentialities that challenge the long-standing camera–avatar duality. *WD2*'s reconfiguration of avatar-centric play is most emphatically expressed through the *camera hack*—the constitutive element of the *WD2* gameplay experience. The camera hack persistently nudges the player to access the multitudinous surveillance cameras mounted throughout Ubisoft's rendition of San Francisco 2.0. Unlike the mobile and fluid perspective of dual control, the perspective of the camera hack is comparatively immobile and fragmented, as it situates the player within the confines of a surveillance camera interface while dividing the player's perspective among a system of individual cameras affixed throughout the cityscape.

Fig. 3. 3. The standard third-person perspective of open world games, where the player controls the extradiegetic camera and the avatar simultaneously.

Fig. 3. 4. The first-person perspective from a hacked surveillance camera.

With a perspective split between the ego-centric view of the avatar and the communal eye of the city's vast network of surveillance cameras, the player hovers between the familiarity of dual control and the disorientation of the camera hack. The perspectival hybridity of dual control—between avatar and camera, between left and right thumbstick—reemerges in *WD2* as the player learns to consistently and repeatedly abandon the mobile camera of the avatar for the situated perspective of the city. *WD2*'s hybrid point of view is that of the flâneur, who is at once a lone observer of the city while also a fixture of the city. Between dual control and the camera hack; the avatar and the interface; control and contingency, the hybrid spaces of *WD2* resonate deeply with writing on the windows, screens, and interfaces of modernity in Lutz Koepnick's *Framing Attention* and Anne Friedberg's *The Virtual Window*. By foregrounding the sensorial volatility and perceptual nuance in everyday acts of (framed) observation, these scholars provide a conceptual model for thinking about interfaces that both challenges and

reinforces the avatar-centric theories from the previous chapter while forming bridges between modern notions of embodied perception and contemporary understandings of interactivity.

Splitting my attention between the avatar and the interface, I will first demonstrate the interplay of bodies and screens foregrounded in two texts pivotal to Benjamin's writing on the flâneur: E.T.A. Hoffmann's "My Cousin's Corner Window" (Des Vetters Eckfenster, 1822) and Edgar Allan Poe's "The Man of the Crowd" (1840). In these stories, windows appear to offer the safety of distanced observation while exposing users to the haptic volatility of the metropolis. I then show how these two short stories stress a surveillant undercurrent in Benjamin's thinking that forms a novel link between the flâneur and the Begutachter. Next, I turn to surveillance studies scholar Jonathan Finn, whose concept of *seeing surveillantly* recasts Benjamin's notions of cinematic perception in the context of participatory coveillance. Finally, I turn to modern window-interfaces to frame a close reading of *WD2*'s camera hack, a reading that places the game's insistence on perspectival destabilization as a poignant example of a broader trend in gaming toward digital flânerie.

The Window Interface, Surveillance, Flânerie

E.T.A. Hoffmann's "My Cousin's Corner Window" and Edgar Allan Poe's "The Man of the Crowd" appear side-by-side in two pivotal texts from Benjamin's writing on the flâneur: "Das Paris des Second Empire bei Baudelaire" (The Paris of the Second Empire in Baudelaire, 1938) and "Über einige Motive bei Baudelaire" (On Some Motifs in Baudelaire, 1939). Benjamin's reading, which stresses the modernity of Poe's text in contrast to the pre-modernity of Hoffmann's, plays into Benjamin's broader framing of modern visuality, the flâneur, and the

crowd—a constellation I will return to later. First, I would like to focus on what these two stories have in common, that is, the reason why Benjamin compared these two stories in the first place. Both stories are anchored to a seated protagonist who finds pleasure in gazing at the passing crowds; both stories feature detailed characterizations of the individuals who make up those crowds; both stories close with a depiction of a protagonist who has been emotionally and physically depleted, and whose perceptual strategies have been undermined. But the commonality most crucial—both stories feature windows that frame all aspects of the work, from the structure of the text to the intellectual scope of the subject matter. Following Koepnick, I argue that the windows in these stories emerge as illuminating examples of the modern interface: "a device not merely for framing and ordering our view of the world but also allowing for reciprocal sensory contact between the human body and a world of unsteady representations."[120] Approaching windows as a means to structure the chaos of the city, Hoffmann and Poe's onlooker-protagonists simultaneously expose themselves to the contingencies of human bodies—including their own—and, in so doing, they unwittingly initiate their own demise. These stories are a testament to competing modes of modern perception—from the stolen glance of the flâneur to the unblinking gaze of the panopticon—which are framed, refracted, and amplified by windows.

In Hoffmann's story, a pair of cousins reunite in front of the titular corner window, which provides a view of a Berlin marketplace from several stories above. The younger cousin is visiting the older, who can no longer leave his small home due to a paralytic condition. An

[120] Lutz P. Koepnick, *Framing Attention: Windows on Modern German Culture,* (Baltimore: Johns Hopkins University Press, 2007), 17.

author of some renown, the older cousin has stopped writing for some time, and had even stopped taking guests—until the day of his younger cousin's spontaneous visit. The bulk of the narrative unfolds before the window, the view through which has brought the writer-cousin "consolation" in an otherwise bleak existence. Noticing the view for the first time, the visitor-cousin remarks:

> The most varied colors were shining in the sunlight, and in very small dots; I received the impression of a large bed of tulips ruffled by the breeze and waving to and fro, and I had to admit to myself that the view was really quite attractive, but exhausting after a while; it might even make nervous people a little dizzy, as if in the not unpleasant delirium of an oncoming dream; it was in that aspect of the view that I detected the source of my cousin's delight in the corner window, and I told him so in no uncertain terms.[121]

Reeling from the elevated view through the window, the visitor's reaction reveals the act of watching to be deeply embodied, as Vance Byrd describes: "The crowded vista overwhelms him. He feels *what* he sees."[122] Though several stories removed from the marketplace, the visitor directly interfaces with the crowd below; he is jostled by its energy, quickly fatigued and wary of vertigo, yet enticed by its potential to transport one into a dream-like "delirium." Intrigued by the writer-cousin's "delight in the corner window," the visitor instigates an exchange that unfolds as an extended dialogue in which the writer teaches the visitor "the art of seeing."[123] The writer's verbal instructions guide the visitor's eyes, compelling the younger cousin to splice the crowd into a series of optical vignettes that focus—with the help of a looking glass—on one or two figures from the crowd, as the writer spins a brief tale about the observed. Though Hoffmann's "Corner Window" begins as a story told from the visiting cousin's

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[121] E.T.A. Hoffmann, "Des Vetters Eckfenster/ My Cousin's Corner Window," in *Four Stories/ Vier Erzählungen*, ed. and trans. Stanley Appelbaum, (Mineola: Dover Publications, 2003): 220-271, at 227.
[122] Vance Byrd, "Regarding the Cousin: Surveillance and Narration in Hoffmann's 'Des Vetters Eckfenster,'" *German Studies Review* 35, no. 2 (May 2012): 249-264, at 251.
[123] *Ibid.*

first-person perspective, the 'lesson in seeing' pushes the narrative into a direct dialogue between "Der Vetter" (the writer-cousin) and "Ich" (I, the visitor-cousin). Most of the remaining tale manifests itself in the pair's spoken words, other than a brief return to the visiting cousin's first-person voice at the end of the tale—which I will address later.

The jarring jump in narrative perspective signals to the reader that the older-cousin has taken control of the conversation, as indicated by his pointed opening words of dialogue:

> Cousin, cousin! Now I see that not even the tiniest spark of talent as a writer glimmers inside you. You're lacking in the first requirement you'd need if you ever wanted to follow in the footsteps of your worthy, lame cousin; to wit, eyes that really see. That market offers you nothing but the view of a checkered, confusing tangle of people stirring with meaningless activity. [...] Come, cousin, I want to see whether I can't teach you at least the rudiments of the art of seeing.[124]

Starting the lesson by correcting the visitor, the writer maintains that it is not the embodied "delirium" of beholding the "tangle of people" that is the "source" of his "delight." Rather he finds joy in his ability to optically carve out individual scenarios from the crowd. His "art of seeing" thrives on suppression and control, contra the visitor, for whom the window transforms "vision into something that affects [his] entire body."[125] The writer's art, then, is to temper the power of the window interface, to dull its potential for "reciprocal sensory contact."[126] Complementary to the writer's pedagogical control, the structure of the dialogue suppresses the introspective and emotional digressions of the visitor-cousin—his 'impressionistic' reflections having kicked off the impromptu lesson in the first place. As two disembodied voices respond to one another, the dialogue format seems ill-suited to the exploration of the corner window's full-body potential, which finds expressive space in the narrator's first-person

[124] *Ibid.*
[125] Koepnick, *Framing Attention*, 16.
[126] *Ibid.,* 17.

digressions. Yet the physiological impact of fenestral perception breaks its way into the lines of dialogue as the visitor tries his best to report back on what he has been instructed to see:

> *Ich.* [...] – blaugraue Strümpfe – Schnürstiefeln – hinter ihr eine stattliche Magd mit zwei Marktkörben, einem Fischnetz, einem Mehlsack – Gott sei bei uns! was die seidene Person für wütende Blicke um sich wirft, mit welcher Wut sie eindringt in die dicksten Haufen – wie sie alles angreift, Gemüse, Obst, Fleisch und so weiter; wie sie alles beäugelt, betastet, um alles feilscht und nichts erhandelt. – [127]

> I: Blue-gray stockings. Laced boots. Behind her, a buxom maid with two marketing baskets, a reticule for fish, and a flour sack. God be with us! What furious glances the person in silk casts all around her! How furiously she pushes her way into the thickest throngs! How she attacks everything, vegetables, fruit, meat, and so forth; how she studies and handles it all, haggling over everything and making no purchases![128]

Sputtering out fragments strung together by hyphens, the visitor's faculty for speech—which flows smoothly in the first-person—cracks and stutters as he struggles through his lesson at the optical interface. Still learning to see like his elder, the visitor cannot help that his attention is pulled to the visceral energy coursing through the crowd, as the sensorial impact of the maid's gaze rattles him into exclaiming "God be with us!" as if her "furious glances" have traveled upward and burst through the corner window. In contrast to the writer, who describes what he sees with a distanced and authorial eloquence, the overexcited visitor spits out a series emotional fragments, the power of embodied perception manifest in every hyphenated break in the text.

Occasionally, and only briefly, the visitor's eyes venture beyond the writer's verbal blinders. In these moments, the reader is confronted with the futility of the writer's "art of seeing." When the roles briefly change, the visitor directs the writer's eyes to an "angelic girl"

[127] Hoffmann, "Corner Window," 228. I include Hoffmann's text here as the English translation smooths over the fragmented nature of the original text.
[128] *Ibid.,* 229.

selling flowers. Like a psychosomatic trigger, the sight of flowers compels the writer to re-experience feelings he would rather escape. Indeed, the view through the corner window, when wrested briefly from his control, pushes the writer to interface with (faraway) images and (bottled-up) emotions from his own past: a suppressed memory of humiliation and disappointment. Loosened from his optic strictures, the writer stumbles—then recovers—from the momentary loss of control; for it is control that is at the core of his "art of seeing." Only a short while later, the market begins to shut down, the writer's nurse announces mealtime, and the 'lesson' comes to an end. With the disembodied draping of the dialogue structure removed, the reader plunges back into the corporeality of the visitor's first-person perspective, as the closing sequence floods the page with sensorial detail—as though to make up for all that the writer had suppressed while controlling the interface. With a "pinched smile," the writer admits he has an appetite, and, the reader watches as the elder cousin is rolled by his nurse into the next room. There, at the sight and smell of the meager meal awaiting him, the writer makes the following confession to his younger cousin:

> "One bite more than this," my cousin said in a quiet, melancholy tone, squeezing my hand, "or the tiniest morsel of even the most digestible meat, causes me the most horrible pain, and robs me of all my courage to face life and the last little spark of good humor that still tries to glimmer from time to time.[129]

The presence of his meal—"a soup plate of moderate size filled with meat broth, a soft-boiled egg propped up in salt, and half a roll"—confronts the writer with all the pain, the bodily limitations, and the utter lack of control that govern his day-to-day existence.[130] His earlier musings about extravagant meals—prepared with the fresh ingredients haggled for down at the

[129] *Ibid.,* 271.
[130] *Ibid.,* 269-71.

market—take on new meaning in the context of the writer's own inability to enjoy food. Torn from his corner window, the writer is portrayed in all his embodied existence, as the reader hears the writer's "quiet, melancholy" voice and feels the squeezing of his hand.[131] The visitor responds with a visual cue, pointing to a sign hanging from the author's bed screen, and then he flings himself onto his older "cousin's breast" to give him a "hard hug."[132] Overwhelmed with emotion, the writer-cousin is—quite uncharacteristically—at a loss for words. The once eloquent writer repeats himself, and regurgitates the message he has hung up on his bed frame: "'Yes, cousin,' he cried in a tone that went right to my heart and filled it with the most devastating melancholy. 'Yes, cousin: et si male nunc, non olim sic erit!'"[133] With his lesson over, and now left to confront the visceral truth of his body's fate, the writer is overwhelmed by all that he had sought to control and suppress at the window: the contingency of the human body.

Aligned with Benjamin's reading, Koepnick characterizes the writer-cousin's relationship to windows as follows:

> The cousin's art of seeing relies on his ability to utilize both his opera glasses and the window frame of his apartment as an Albertinian picture plane. The urban crowd outside might be in constant motion and deny its members any sense of overview, but as screened through the cousin's tools of detached imaging, the glasses and the corner window, the sight of the crowd becomes manageable, a source of aesthetic pleasure rather than a threat to the observer's desire for perceptual synthesis.[134]

In the course of the extended dialogue, the writer appropriates his "tools of detached imaging" as instruments of indoctrination, as he guides his 'impressionistic' cousin through a perceptual

[131] Ibid., 271.
[132] *Ibid.*
[133] *Ibid.* ("If things are bad now, they won't be in the future").
[134] Koepnick, *Framing Attention*, 56.

catechism. The writer's corner window and spyglass, as well as the format of the dialogue, emerge as tools of sensorial suppression and pedagogical control, while simultaneously betraying the writer's own desperate struggle, as he is subjected to the corporeal limitations of his deteriorating condition. While attempting to overcome his own bodily disabilities by employing the corner window as prosthetic extension, the writer unwittingly opens himself up to the reciprocity of the modern window interface, which simultaneously "situates the observer as [the] tumultuous world's prosthesis."[135] In the opening sequence of the story, the reader follows the younger cousin as he walks down the street:

> It was on a market day when I pushed my way through the swarm of people and made my way down the street from which my cousin's corner window can be spotted from a considerable distance. I was not a little astonished, when, in that window, I caught the gleam of that familiar little red cap that my cousin used to wear on his good days. [...] I beckoned to him, I waved my handkerchief up to him; I succeeded in attracting his attention, and he gave me a friendly nod. What hopes I had! I raced up the steps with the speed of lightning.[136]

On this day, the window that (supposedly) enables the writer to "take in the whole panorama of the grandiose square" also frames the writer as an object to be viewed from the "swarm of people" down on the street.[137] Despite his panoramic view, the writer is initially unable to spot his younger cousin in the crowd. In fact the visitor sees the writer first and the perspective from the street races up to the exposed onlooker at the "speed of lightning." As an interface, the corner window ruptures the separation between exteriority and interiority, placing the visitor-cousin's first-person, impressionistic perspective in direct tension with the aging writer's

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[135] *Ibid.,* 17.
[136] Hoffmann, "Corner Window," 223-5.
[137] Darby points out that the writer's view is distinctly un-panoramic: "there emerges no comprehensive network of spatial interrelations that is capable of binding a whole 'Panorama.'" See, David Darby, "The Unfettered Eye: Glimpsing Modernity from E.T.A. Hoffmann's Corner Window," *Deutsche Vierteljahrsschrift für Geistesgeschichte und Literaturwissenschaft* 77, no. 2 (2003): 274-94, at 287.

program of "perceptual synthesis."[138] Though the dialogue at the corner window has the older cousin directing the younger, the overarching narrative framework belongs to the younger cousin, whose interaction with the window interface reveals a *new* "art of seeing" that demonstrates a "willingness to explore and render visible the sensory perception of reality."[139] Just as the writer—spotted by the visitor on the street—cannot possibly suppress the "modern window's reconfiguration of sight," so too he cannot suppress the contingencies of his own body; a painful lesson to learn, as reflected in the closing words of the tale, uttered by the visitor: "Poor cousin!"[140]

In Poe's story, an unnamed narrator recounts a recent evening he spent sitting "at the large bow window in the D —— Coffee-House in London" watching crowds "rushing past."[141] Positioned at the window, the narrator intends to leisurely watch the street while smoking his cigar and glancing at a newspaper.[142] But the cigar and newspaper are quickly discarded as the narrator's full attention is drawn to the window, which frames the "tumultuous sea of human heads" that stir in him "a delicious novelty of emotion."[143] To moderate the sensorially intensive stimuli pouring in through the window pain, the narrator shifts his perceptual focus from the appearance of the overall crowd to the details of individuals within the crowd. He systematically categorizes the passers-by, noting "the innumerable varieties of figure, dress, air, gait, visage, and expression of countenance."[144] As if Hoffmann's oppositional cousins had been

[138] Koepnick, *Framing Attention*, 64.
[139] *Ibid.,* 58.
[140] Hoffmann, "Corner Window," 271.
[141] Edgar A. Poe, "The Man of the Crowd," in *Collected Works of Edgar Allan Poe: Tales and Sketches 1831-1842*, ed. Thomas Ollive Mabbott, (Cambridge: Belknap Press of Harvard University Press, 1978), 2: 505-518, at 507.
[142] *Ibid.*
[143] *Ibid.*
[144] *Ibid.*

collapsed into one person, Poe's onlooker engages with the window by both parsing its stream of visual data and immersing himself in the flow of moving images presented in its frame.

With no younger cousin to 'teach' his art of seeing, Poe's narrator inundates the reader with his assessment of the crowd. During his moments of cognitive clarity, the narrator sorts, groups, and labels the window's live-stream of scrolling data, thus forming a taxonomy of the metropolitan masses that includes "noblemen, merchants, attorneys" as well as "organ-grinders, monkey-exhibiters and ballad mongers."[145] In these passages, Poe's onlooker uses the window like a prosthetic eye, one that presents him with a legible cross-section of London inhabitants in a format ripe for analysis. But his meticulous system of observation and classification continually teeters on the precipice of sensorial overload, as the narrator continually struggles with his embodied perception of the passing crowds, which give "an aching sensation to the eye."[146] As the evening grows darker, Poe's onlooker reveals the extent to which his metropolitan taxonomy has been established on shaky perceptual grounds. The changing play of light dictates how he feels and, in turn, how he reads the crowd:

> The wild effects of the light enchained me to an examination of individual faces; and although the rapidity with which the world of light flitted before the window, prevented me from casting more than a glance upon each visage, still it seemed that, in my peculiar mental state, I could frequently read, even in that brief interval of a glance, the history of long years.[147]

"Wild effects of the light" recalibrate the narrator's lens of analysis, which tightens to "individual faces" while expanding to encompass "the history of long years" based on a "glance upon each visage." The sensorial dynamism of embodied perception overwhelms the observer,

[145] *Ibid.,* 510.
[146] *Ibid.*
[147] *Ibid.,* 511.

who, “enchained” by the window interface, has been thrown into a “peculiar mental state.” The onlooker carefully articulates that ‘it seemed’ he could read each visage with only a glance, casting the truth of his grandiose claims in doubt. Now with the sun set and the gas lamps illuminating the street, the narrator not only feels the bodies rushing past the window, but this framed “world of light” physically moves him, pulling him from his seat and pressing his “brow to the glass” to better examine the crowd.[148] What started with some casual glances through the window pane devolves into a desperate attachment to the interface—a stance that betrays his calculated efforts to make sense of the crowd.

In describing the sensorial dynamics of fenestral observation in Kafka’s parable “The Street Window,” Koepnick provides a framework for reading the embodied perception in Poe’s short story. Drawing attention to Kafka’s articulation of the window as the site of *attachment* (anschließen), Koepnick locates the modernity of “The Street Window” in its sensitivity to the bodily realities of perception:

> [...] what Kafka means when speaking of attachment is a process of displacement in which the window immerses the observer somatically into the fleeting movements of the street. Kafka’s window, far from merely appealing to what is abstract and distanciating about our sense of sight, transforms vision into something that affects our entire body, that can be physically felt, and that has the ability to set into motion even the most sedentary viewer. While some might use the window in order to pursue the voyeuristic pleasure of distant observation, the window’s most salient function is to dynamize the place of viewing by situating the viewer as a sentient being in the commotion of the street.[149]

With his face quite literally attached to the interface, Poe’s narrator is deeply moved—physically, mentally, emotionally, and somatically—by the “fleeting movements of the street” as his attempts at “distant observation” and abstract analysis give way to the raw sensorial

[148] *Ibid.*
[149] Koepnick, *Framing Attention*, 16.

power of perceptual stimuli conveyed through the window. The bow window functions as an interface that enables the "unsteady representations" of the passing crowds to pour into the coffee shop, just as it delivers the narrator into the "synaesthetic immersion" of the city street. Unlike Kafka's narrator, who remains at his window sill, Poe's narrator has no choice but to join the crowd; he is, in many ways, already "set into motion," as his "place of viewing" has long since been dynamized by, and immersed in, the "commotion of the street." When the countenance of a mysterious old man appears in the crowd, the narrator's system of optic analysis—already jarred by the somatic immersion of the window—comes crashing down:

> [...] suddenly there came into view a countenance (that of a decrepit old man, some sixty-five or seventy years of age,) — a countenance which at once arrested and absorbed my whole attention, on account of the absolute idiosyncracy of its expression. [...] As I endeavored, during the brief minute of my original survey, to form some analysis of the meaning conveyed, there arose confusedly and paradoxically within my mind, the ideas of vast mental power, of caution, of penuriousness, of avarice, of coolness, of malice, of blood-thirstiness, of triumph, of merriment, of excessive terror, of intense — of supreme despair. I felt singularly aroused, startled, fascinated. "How wild a history," I said to myself, "is written within that bosom!" Then came a craving desire to keep the man in view—to know more of him. Hurriedly putting on an overcoat, and seizing my hat and cane, I made my way into the street, and pushed through the crowd in the direction which I had seen him take; for he had already disappeared.[150]

This pivotal sequence depicts how the "absolute idiosyncrasy" of the old man's expression shatters the narrator's taxonomical gaze, as the window frame's organizing perspective gives way to the human chaos of the street. As he cycles through a wide-ranging spectrum of emotional readings—from "triumph" to "supreme despair"—the narrator is overwhelmed by his emotional state and gives himself over to a "craving desire" to follow the man through the crowd. Hurrying outside, Poe's narrator mobilizes his body to catch up to his already mobilized gaze, thus reifying the window's capacity to connect interior and exterior spaces while

[150] Poe, "Crowd," 511.

destabilizing notions of private and public spheres. Out on the street, the narrator pushes against the passers-by whose elbows had already jostled him through the bow window. The desperate chase goes through the night and into the next evening, as the narrator—"wary of death"—collapses in the street before the bow window, where his troubles began.

Like Hoffmann's writer-cousin, Poe's narrator mistakes the window as a mere tool for extending his gaze—a means to control and organize the outside world through visual synthesis. Working from this faulty pretense, Poe's narrator chases a string of faulty conclusions: that visuality, even when framed, can be controlled; that the window separates and secures the act of observation; and that to see is to *know*. The window is not merely an instrument of control and separation, it is an interface of bi-directional exchange that exposes interior onlookers both to exterior contingencies and to the contingencies embedded within the human body and psyche. It is no surprise, then, that the narrator's urban taxonomy is so quickly and thoroughly toppled by the man of the crowd. The narrator's systematic efforts to categorize the crowd are firmly planted in the contingencies, and chaos, of embodied perception: his system is destined to crash. Like Hoffman's disabled writer-cousin, Poe's convalescing narrator experiences the fallibility of his optical regime as he is forced to confront the limitations of his own body. Both tales conclude with the image of a broken and disillusioned protagonist, and both tales harness the potential of the modern window to destabilize physical, perceptual, and aesthetic boundaries. If Hoffmann's "Corner Window" mixes writing styles and genres to mirror the clash of pre-modern and modern modes of (framed) observation, Poe's "Crowd" harnesses the mercurial—and monstrous—effects of the window to weave a gothic tale into the urban physiognomic writing so popular in the 19th

century—and the habitat of the flâneur. But where, exactly, is the flâneur in "The Man of the Crowd" and "My Cousin's Corner Window"? And how is the flâneur surveillant?

In his two Baudelaire essays—"The Paris of the Second Empire in Baudelaire" (Das Paris des Second Empire bei Charles Baudelaire, 1938) and "On Some Motifs in Baudelaire" (Über einige Motive bei Baudelaire, 1939)—, Benjamin couples "My Cousin's Corner Window" and "The Man of the Crowd" as primary texts within his sprawling study of the flâneur as an avatar of modern experience. While Benjamin's reading of Hoffmann and Poe does not place a flâneur figure definitively in either story, it is clear that Benjamin registers each text—to differing degrees—as exhibiting central elements of flânerie: the metropolis, the masses, and the acts of watching others and being watched. More specifically, Benjamin weaves "Corner Window" and "Crowd" into a conceptual constellation centered on the dichotomy of human perception and technology, a galvanizing tension that connects flânerie, surveillance, and film. Forming a bridge from his two Baudelaire essays to his artwork essay, Benjamin articulates the contours of modern perceptual practices while investigating the interplay between the masses and interfaces—from the window to the camera lens to the film screen.

In the section titled "The Flâneur" of his 1938 Baudelaire text, Benjamin prefaces his comparative reading of Hoffmann and Poe with a brief history of governmental efforts to implement a "multifarious web of registrations." These efforts, which range from the "numbering of houses in the big cities" to mug shots, were designed to combat (potential) criminal activity afforded by the anonymity of the metropolitan masses—the safe haven for people like the man of the crowd. In other words, Benjamin outlines a short history of modern surveillance that corresponds with the rise of the metropolis and the masses:

> Technical measures had to come to the aid of the administrative control process. In the early days of the process of identification, whose current standard derives from the Bertillon method, the identity of the person was established through his signature. The invention of photography was a turning point in the history of this process. It was no less significant for criminology than the invention of the printing press was for literature. Photography made it possible for the first time to preserve permanent and unmistakable traces of a human being. The detective story came into being when this most decisive of all conquests of a person's incognito had been accomplished. Since that time, there has been no end to the efforts to capture [dingfest Machen] a man in his speech and actions.[151]

It is telling that the above paragraph, which so evocatively traces the opening stages of surveillance society, is immediately followed by a comparative analysis of "The Man of the Crowd" and "My Cousin's Corner Window"—with nothing by way of transition. As in the artwork essay, "Second Empire" maintains that artistic production emanates from—and thus reveals the essence of—the technological developments of its time. In the shadow of the government's "multifarious web of registrations," Hoffmann's corner window and Poe's bow window emerge as surveillance technology that entangles individual glances and gazes within a rapidly expanding complex of surveillance. Windows, along with other, top-down surveillant measures—*SchuPo* in "Corner Window" and street lights in "The Man of the Crowd"—amplify a macabre fascination with the masses that permeates the watchful stories of Hoffmann and Poe. Placing these stories alongside his history of surveillance, Benjamin creates a parallel between the futility of individual attempts to establish visual order and the societal attempts to establish physical order over the metropolitan crowds. Both victims and perpetrators of systematic observation, Hoffmann's cousin and Poe's narrator suffer the unpredictable and extreme potential of surveillance as it inscribes itself on the contours of their depleted and broken

[151] Walter Benjamin, "The Paris of the Second Empire in Baudelaire," trans. Harry Zohn, in *Walter Benjamin: Selected Writings, Volume 4: 1938-1940,* eds. Howard Eiland and Michael W. Jennings, (Cambridge: Belknap Press of Harvard University Press, 2003):3-92, at 26-7.

bodies. From macro-level historical analysis to micro-level close readings of fictional narratives, Benjamin's depiction of surveillance registers the impact of societal measures on the intimate sphere of the human body.

By juxtaposing the onset of "administrative control" with the birth of the detective story, Benjamin emphasizes that the true detriment of surveillance technology is its tendency to amplify the spectacle of the crowd while distorting—and distracting from—its true nature. The essence of the crowd, and the futility of surveillant attempts to control the crowd, is laid bare in the texts of Hoffmann and Poe. For Benjamin, it is the gaze of the flâneur—with or without the aid of surveillant interfaces—that truly sees the masses. Benjamin, however, does not locate the flâneur directly in the lines of "Corner Window" or "Crowd"; rather just beyond them, in the authors themselves. These authors, Benjamin maintains, see the crowd as both object of study and source of inspiration; their shared vantage point binds them to one another: "Hoffmann by nature belonged to the family of the Poes and Baudelaires."[152] Drawn to the crowd, Benjamin's flâneurs are artists who conduct literary surveillance that entwines artistic and analytic impulses. Though "Second Empire" features a brief history of governmental surveillance, the weight of the essay favors the writings of the flâneur to examine the spectrum of watchful acts that characterize modern visuality and the re/presentation of the masses. Reflecting on "The Man of the Crowd," Benjamin argues that Poe's "description of the crowd will claim at least as much interest, for documentary as well as artistic reasons."[153] Benjamin's formulation here echoes his appraisal of the filmic medium in the artwork essay, where he

[152] *Ibid.,* 28.
[153] *Ibid.,* 27.

maintains that film will demonstrate how the "artistic uses" of the camera "are identical to its scientific uses." The similarity is telling, as Benjamin turns to the cinematic interface in his follow-up Baudelaire essay, espousing the filmic medium's fundamental capacity—not unlike the writing of the flâneur—to interface with the crowd.

In his 1939 essay "On Some Motifs in Baudelaire," Benjamin follows his close reading of Hoffmann and Poe by characterizing the "mechanization" of metropolitan crowds:

> In the mid-nineteenth century, the invention of the match brought forth a number of innovations which have one thing in common: a single abrupt movement of the hand triggers a process of many steps. This development is taking place in many areas. [...] With regard to countless movements of switching, inserting, pressing, and the like, the "snapping" by the photographer had the greatest of consequences. Henceforth a touch of the finger sufficed to fix an event for an unlimited period of time. The camera gave the moment a posthumous shock, as it were. Haptic experiences of this kind were joined by optic ones, such as are supplied by the advertising pages of a newspaper or the traffic of a big city. Moving through this traffic involves the individual in a series of shocks and collisions. At dangerous intersections, nervous impulses flow through him in rapid succession, like the energy from a battery. [...] Thus, technology has subjected the human sensorium to a complex kind of training. There came a day when a new and urgent need for stimuli was met by film. In a film, perception conditioned by shock [chockförmige Wahrnehmung] was established as a formal principle. What determines the rhythm of production on a conveyor belt is the same thing that underlies the rhythm of reception in the film.[154]

Having just analyzed "Crowd" and "Corner Window," Benjamin follows the gazes that flow through windows and charge the "nervous impulses" among the crowds in Hoffmann's Berlin and Poe's London. The above passage echoes the scope of Benjamin's short history of surveillance in his earlier Baudelaire essay; there, and here, Benjamin stresses the human impact of technological developments most closely associated with modern metropolitan life. While "Second Empire" addresses the technological means of controlling the crowds, "Motifs" addresses the technological means of automating those crowds—as they navigate metropolitan

[154] *Ibid.,* 328.

traffic, toil on the assembly line, crowd the gambling halls, and go to the movies. In both of the above passages, Benjamin singles out the camera: first in "Second Empire," for its unique capacity to "capture man in his speech and actions," and then in "Motifs," for its unique capacity to reveal and convey the changing state of the human sensorium as it undergoes the "shocks and collisions" of modernity. The dichotomy here is striking: on the on hand, the camera is the pinnacle of modern attempts to "capture" and control the masses, and on the other hand, the camera is essential to showing the masses the truth about themselves. With the power to both subjugate and liberate, the cameras that appear in Benjamin's Baudelaire essays operate like the windows in Poe and Hoffmann's short stories; they open up spaces for exploring the flux of human contingency through the embodied perception that their tactile images demand—all while framing those same spaces within the optical parameters of visual synthesis and control. This tension—which blurs the boundaries between analytic coldness and sensorial delirium, between Hoffmann's older and younger cousin, between surveillance and flânerie—is the basis of Benjamin's writing on film and filmic perception: testing as seeing, or seeing as testing.

As detailed in the last chapter, Benjamin's artwork essay employs an avatarial framework that expresses the tension between the masses and modern technology, between the Publikum and the Apparatur. From the Begutachter to the Examinator, Benjamin's avatars embody *testing as seeing*—the mode of perception that emerges from the cyborgian symbiosis of film audiences and film technology. Relying on often violent corporeal imagery, Benjamin conceptualizes modern visuality as (painfully) haptic, thus linking his characterization of the Begutachter to his reading of Hoffmann and Poe's window stories. Whether jostled by the bow

window's "flickering world of light"; shocked by the film screen's wild "train of associations"; or captured by the photographer's "snapping" of the camera, the inhabitants of Benjamin's media ecology experience the visual stimuli of modern interfaces as deeply embodied. Benjamin's comparison of window-watchers and movie-goers is echoed in Koepnick's reading of Kafka's "Street Window," an analysis that stresses the short story's cinematic elements by drawing from Erwin Panofsky's writing on film reception:

> Kafka's look through the apartment window is that of the moviegoer in disguise. Though his body might be safely installed behind the window frame, his senses are all in motion, attracted by and immersed in the movements that take place in front of his eyes. What Kafka's observer experiences is a potent dynamization of space in whose wake acts of observation lose any sense of Albertinian distance and purifying abstraction. Rather than endow the viewer with fantasies of scopic sovereignty and god-like control, Kafka's (cinematic) window defines the moving world beyond the frame as a prosthetic extension of the viewer's body as much as it situates the observer as this tumultuous world's prosthesis.[155]

Kafka's window-gazer could aptly be applied to Hoffmann's narrator or Poe's onlooker, just as it could be applied to Benjamin's movie-goer. Approaching the window through the movie frame, Koepnick introduces concepts and terminology that deepen and refine the connection between Benjamin's Baudelaire texts and his artwork essay. Koepnick's articulation of bi-directional prosthetic extension resonates with the most somatic of Benjamin's avatarial imagery—psychological probes and surgical incisions. Moreover, the focus on the interface complements and complicates Benjamin's focus on bodies—both human and avatar. If Benjamin's avatarial framework explores the Publikum while revealing truths about the Apparatur, then Koepnick's fenestral framework explores the Apparatur while revealing truths about the Publikum. Viewing Benjamin's writing through modern windows, the Apparatur appears as a series of interfaces—the street window, the lens of the (film) camera, the film screen, and the projector—that

[155] Koepnick, *Framing Attention*, 17.

channel and amplify the flow of perceptual testing as it entangles itself in the evolving human sensorium. The pervasive cyborgian symbiosis of the Publikum and the Apparatur plays out through Kafka's street window just as it does through Benjamin's film screen, as the interfaces of modernity both shape and are shaped by the masses. At the intersection of the masses and modern interfaces, the "web of restrictions" and the surveillant potential of photographic technology play a telling role in Benjamin's cyborgian dynamic.

In his "Second Empire" essay, Benjamin appraises the advent of photography as the Gutenbergian "turning point" for surveillance technology, while hinting at the—then untapped—potential of film in the ongoing "efforts to capture (*dingfest machen*) a man in his speech and actions." Using "dingfest machen" (roughly: to capture) in the context of surveillance, Benjamin draws on the phrase's legal connotation—to apprehend a suspect—while applying it figuratively to characterize the camera's ability to *capture* an individual's essence. Benjamin's play-on-words continues with his depiction of photography: he applies "festhalten"—which can mean detaining a suspect, securing a record, or physically grabbing hold of something—to describe the camera's act of *capturing* (festhalten) the "permanent and unmistakable traces of a human being."[156] Benjamin's lexical register in "Second Empire"—where "human traces" are *captured* by the camera and one's anonymity is *conquered* by surveillant technologies—echoes his writing in the artwork essay, where the "here and now" (or the "human trace") of the actor's performance is displaced by its reproducibility. The death of the (actor's) aura in the film studio is bound up in the death of the anonymity of the masses, and the Apparatur is to blame. It is no surprise then that Benjamin conceptualizes modern

[156] Benjamin, "Paris," 27.

perception—testing as seeing—through a series of figures whose livelihood is predicated on the close examination of others: the evaluator, the examiner, the surgeon, the flâneur, and the psychoanalyst. These are all figures who rely on surveillance, avatars of a pervasive mode of perception that impinges on—and penetrates—the most private spheres of the human mind and body. For all of Benjamin's linguistic and conceptual focus on the film camera's invasive human impact, his appraisal of film also includes passages that make room for the medium's liberatory potential:

> Our bars and city streets, our offices and furnished rooms, our railroad stations and our factories seemed to close relentlessly around us. Then came film and exploded this prison-world with the dynamite of the split second, so that now we can set off calmly on journeys of adventure among its far-flung debris.[157]

Benjamin expresses the revolutionary potential of the film camera by relating its impact to the changing face of public spaces—spaces inhabited by the masses. On the one hand, film's revolutionary potential is revealed through its theoretical impact on the human sensorium—the discovery of "the optical unconscious"—, on the other hand, through its socio-political impact of delivering the masses—and their stories—to the big screen. Citing Soviet avant-garde cinema that advocates for the people it captures—"Vertov's *Three Songs for Lenin* or Ivens' *Borinage*"—Benjamin maintains that to be caught on camera is not merely an attack on anonymity, it is something to be desired, and more so, a right: "*Any person today can lay claim to being filmed*."[158] Clearly Benjamin does not have the "web of registrations" in mind when advocating for the right to be filmed. Rather he sees the medium's dynamic potential in its

[157] Walter Benjamin, "The Work of Art in the Age of Its Technological Reproducibility: Third Version," trans. Harry Zohn and Edmund Jephcott, in *Walter Benjamin: Selected Writings, Volume 4: 1938-1940,* eds. Howard Eiland and Michael W. Jennings, (Cambridge: Belknap Press of Harvard University Press, 2003): 251-83, at 265.
[158] *Ibid.,* 262. Benjamin's emphasis.

engagement with the masses, who shift from passers-by on the street to on-screen extras caught on film to audience members in the theater—a haptic feedback loop held together by cinematic interfaces. In the reciprocal media ecology of the Publikum and Apparatur, the concept of surveillant control is complicated by the audience's attainment of desired—and deserved—visibility and reproducibility.

At the close of the artwork essay, Benjamin acknowledges the changing state of aesthetic reception in light of the collision between mass media and the masses—here, reception becomes participation:

> The masses are a matrix from which all customary behavior toward works of art is emerging newborn. Quantity has been transformed into quality: the greatly increased mass of participants has produced a different kind of participation.[159]

For Benjamin, the masses *participate* in film, first and foremost, through the haptic perception demanded by the cinematic interface, which fosters a bi-directional exchange similar to that depicted in Hoffmann and Poe's stories of window interfaces. Responding to the tactile optics of film, the Publikum adopts the multifaceted strategies and habits expressed through Benjamin's avatarial framework, thus developing a mode of participatory perception—testing as seeing. Benjamin mirrors, and extends, his characterization of participatory filmic *reception* in his account of filmic *production*, especially as it pertains to the framing of the masses. Comparing movie-goers to sports fans, Benjamin claims that the broader Publikum's enjoyment of both moving images and athletic bodies-in-motion hinges on audience members seeing themselves as quasi-experts. Benjamin explains this spectator-based expertise through analogy, whereby the amateur bike race is likened to the newsreel; the race offers bicycle "delivery

[159] *Ibid.,* 267.

boys" the chance to rise to the rank of "professional racer," just as the "the newsreel offers everyone the chance to rise from passer-by to movie extra."[160] Benjamin then turns to literature, pointing to the glacial historical process of authorial democratization, concluding that "the distinction between author and public is about to lose its axiomatic character."[161] Referencing examples from Russian cinema where people "portray themselves—and primarily in their own work process," Benjamin excitedly reports that the centuries-long shift toward widespread authorship in literature has happened for film in a decade. With works like *Three Songs for Lenin* and *Borinage* in mind, Benjamin sees a cinema for the masses, by the masses, where to stand before the Apparatur—to have your "human trace" captured by the cinematic record—is to participate. Of course Benjamin recognizes that a proletarian cinema would face substantial roadblocks; he names "the capitalist exploitation of film," "unemployment," and "fascism" directly.[162] In an ideal world, however, Benjamin's cinematic interface blurs the role of the movie-goer sitting in front of the screen with that of the movie-subject appearing on the screen, just as the Begutachter blurs the gaze of the Publikum with that of the Apparatur. When Benjamin writes of the prison-world of modernity blown asunder, he is, in part, speaking to the democratized cinematic presence of the masses, who see themselves—and their stories—projected by and through the Apparatur. The death of anonymity, like the death of the aura, gives way to the birth of a participatory—and politicized—cinema.

[160] *Ibid.,* 262.
[161] *Ibid.*
[162] And while it does not make Benjamin' list, the budding surveillance state seems a fitting addition, as it overlaps with/emerges from this constellation of control structures.

Of course Benjamin only glimpsed at a world of democratized cinematic gazes; anything approaching his vision of truly participatory cinema would arrive decades later in the form of smartphone camera technology, the pervasiveness of which has imprinted all aspects of the digital age. Indeed, the Publikum and Apparatur have never been more entangled, as the masses now wield recording interfaces of their own, while simultaneously immersed in an ever-expanding web of screens and cameras. Tenets of contemporary surveillance studies—from David Lyon's liquid surveillance to William Staples's everyday surveillance to Kevin Kelly's coveillance—conceptualize surveillance as ubiquitous and omnidirectional, a symptom of a global, technologically-powered phenomenon: the digital turn. While Benjamin could not have foreseen the eventual scope of the (digital) surveillance state, he does point to the surveillant trade-off that truly participatory media would come to entail. Interaction, connectivity, and visibility hinge on tools of systematic observation—and potential control. Echoing Benjamin, contemporary writing on surveillance explores the tension between participation and privacy, between the right to be forgotten and the desire to be seen—reciprocal dynamics that undermine long-standing, monolithic models of surveillance such as Big Brother and the panopticon. Benjamin's varied notion of surveillance finds its complement in Jonathan Finn's term *seeing surveillantly* which expresses the confluence of technological, social, and behavioral developments that cultivate "a way of seeing, understanding and engaging the world."[163] Finn's *seeing surveillantly*—which casts surveillance as "less something that bodies are subject to than a constitutive part of those bodies"—reinforces the cyborgian hybridity of

[163] Jonathan Finn, "Seeing Surveillantly: Surveillance as social practice," in *Eyes Everywhere: The Global Growth of Camera Surveillance,* eds. Aaron Doyle, Randy Lippert, and David Lyon, (Abingdon: Routledge, 2012): 66-80, at 67.

the Publikum and the Apparatur, while pulling Benjamin's *testing as seeing* into the realm of wearable biometrics, data doubles, and body cams. This same notion of cyborgian hybridity encapsulates broader, and long-standing, interaction between human bodies and technological interfaces—whether the onlooker at the window, the extra before the camera, or the player in the gameworld.

In Benjamin's media ecology, surveillance and flânerie appear side-by-side, two modes of perception that reflect the watchful acts that emerge from the interplay between the masses and modern (cinematic) interfaces. In today's videogame worlds, surveillance and flânerie reemerge as symptoms of the careful observation that shapes how games are made and how games are played. As the *Super Mario 64* mirror hall reminds us, the gameplay experience revolves around a dynamic of surveillance—symbolized in the *surprise* reflection of the Lakitu camera fixated on Mario. That a medium based on player participation should rely so heavily on surveillant methods is no surprise: the promise of interactivity demands that the videogame successfully monitors, and responds to, the player's every move. One expression of gaming's inherent watchfulness—especially present in the crowded metropolitan spaces of open world games—is the rise of digital flânerie, which embodies a perspective that is drawn to the masses but does not seek to control them, a perspective that takes stock of—and even revels in—the flux of (online) human contingency but does not seek to impose order. In the final section of this chapter, Benjamin's coupling of surveillance and flânerie will inform an analysis of Ubisoft's *Watch_Dogs 2* (*WD2*), an open world videogame that engages with (its own place within) the world of digital surveillance while advancing the mainstream popularity of digital flânerie—as gameplay experience and design principle. By splicing systems of observation and control, *WD2*

creates a gameworld that further complicates the overlap between flânerie and surveillance, opening the potential to think through the myriad ways in which the (online) masses interface with digital surveillance technologies—including the videogame console. As the following case study shows, *WD2*'s play with (surveillance) cameras stresses the embodied perception inherent in both modern and digital interfaces, thus complementing and complicating avatarial frameworks while exploring the reaches of interactivity.

Watch_Dogs 2: Dual Control, Camera Hack

For simultaneously subverting and buttressing dual control, Ubisoft's 2016 *Watch_Dogs 2* provides a twenty-year coda to Nintendo's introduction of the (now standard) control scheme in *Super Mario 64*. An heir to the play of perspectives that distinguished *Super Mario 64*, *WD2* boasts a choreography of (surveillant) interfaces that demands the same attention—critical, aesthetic, and conceptual—as the choreography of avatars in the Mario mirror hall. Where Nintendo introduced an avatar to teach the player to see anew, *WD2* removes the onscreen avatar to destabilize the player's perceptual habits and push them toward another perceptual paradigm. A persistent and pervasive game mechanic, the *camera hack* repeatedly shifts the player's perspective to the lens of any nearby surveillance camera, through which the player is free to observe—and directly influence—the gameworld within the camera's field of vision. By repeatedly ripping the player's perspective away from the avatar—only to return it again later—, the camera hack dissembles and reassembles the player's haptic reflexes bound up in the dual thumbsticks of the controller. Reeling from the camera hack's hand-eye discoordination, the player is immersed in a sea of (surveillant) interfaces and watchful acts—a

jarring reminder that the act of perception, through and beyond the avatar, is deeply embodied. Like Hoffmann's author-cousin and Poe's narrator, players of *WD2* are repeatedly confronted with the functional fallibility and sensorial volatility of interfaces that promise perspectival clarity and visual control. By fostering a gameplay experience of disorientation and destabilization, the camera hack taps into notions of embodied perception that link back to modern (window) interfaces—the very interfaces that shape the contours of Benjamin's Begutachter. Like the charge of the shock experience that welds together the Publikum and the Apparatur, the camera hack interweaves the player's perspective into the gamespace—camera by camera, interface by interface—, thus forging styles of play at once full of purpose and utterly aimless; offering vantage points both elevated with oversight and lost in a flow of visual stimuli; and promoting points of view at once propulsive and meditative. Galvanized by the camera hack, *WD2* provides the ideal sandbox for bringing Benjamin's ideas—on surveillance and flânerie, as well as *testing as seeing* and the Begutachter—into contact with concepts at the core, and the cutting-edge, of game studies: the avatar, the interface, and embodied perception; player agency and designer control; online connectivity and data privacy; and the limits of interactivity.

The following case study focuses on the camera hack, a uniform event that reoccurs so often in the *WD2* gameworld—in a multitude of forms and settings—that it shapes the overarching *gameplay experience*. Following Brendan Keogh, *gameplay experience* is used here to denote all that happens when the player is sitting in front of the screen, including those innumerable moments where the player (closely) watches, and listens to, the videogame—controller in hand, but pressing no buttons. Keogh, who classifies videogames as "audiovisual

haptic media," favors a mode of analysis that accounts for the vast spectrum of perceptual contact between the player and the game console, a model especially apt for this study which traces embodied perception from the window to the cinema to dual control. Viewing ludic surveillance cameras through the windows of modernity, the following analysis bridges the interfaces of reproducibility with the user interfaces of the digital age, while expanding notions of avatarhood and dual control explored in the previous chapter. Formative to the gameplay experience, the camera hack influences all realms of *WD2*, from its general aesthetic to the arch of the game's central narrative. Set in and around Silicon Valley, *WD2* tells the story of Marcus Halloway, a 24-year-old computer prodigy who becomes entangled in a David-versus-Goliath battle between DedSec, a hacktivist collective, and the Blume Corporation, a multinational communications technology conglomerate. While the camera hack propels the narrative forward through missions and objectives, it also opens up aimless and exploratory play with—and through—the city. Symbolic of the surveillance technology upon which it is based, the camera hack is both an extension of the designer's control and a conduit for player agency—especially digital flânerie. Drawing from interviews with employees from Ubisoft, this case study will also show how issues of flânerie and surveillance are as relevant for game makers as they are for those who play and study videogames. This case study closes by returning to the central issue raised at the start of this dissertation, namely, the unlikely pathways of a phenomenon—digital flânerie—that form a tension between the periphery and the forefront of gaming culture. Examining digital flânerie through the surveillant interfaces of *Watch_Dogs 2*, I will approach the following questions: What do the haptic interfaces of the camera hack reveal about the state of privacy in the age of seeing surveillantly? What are the

limits of interactivity? And what does this mean for the future of videogames? To approach these questions, among others, the precise nature of the camera hack, and how it works, must be looked at closely.

To move through the San Francisco of *WD2*, the player navigates the avatar—Marcus Holloway—and the game camera by following the basic principles of dual control. That is, the player uses the left thumbstick to move the avatar and the right thumbstick to manipulate the game camera: navigation and perception expressed through synchronicity of the eyes and the camera, the thumbs and the controller, and the avatar body. Thanks to a hacking tool given to Marcus upon joining Dedsec, the player has access to Blume Corp's ctOS surveillance system, which manifests itself in the gameworld as a vast network of surveillance cameras that line every street. When the player spots a surveillance camera, the player can hack into it by aiming the gameplay camera (using the right thumbstick) at the diegetic camera and then pressing and holding the "square" button for a brief moment, the duration of which is signaled by a timer graphic.

Fig. 3. 5. The static element of the camera hack consists of simply pressing and holding the "square" button. The camera hack's dynamic element, and source of its challenge, demands that the player scan the gameworld for surveillance cameras.

The moment the player successfully hacks the camera, the player's point of view leaves the game camera—anchored to Marcus—and quickly swings to that of the surveillance camera, i.e. the player sees directly through the lens of the hacked camera. From the surveillance camera perspective, the player can manipulate the right thumbstick to rotate the camera in all directions, and manipulate the trigger buttons to zoom in and out on any object within the camera's field of vision. While controlling the surveillance camera, the player can no longer control the Marcus avatar. If Marcus is within visual range of the surveillance camera, the player can spot the avatar sitting cross-legged on the ground in front of his laptop—Marcus' default hacking position. Unlike everything else in the gameworld, Marcus appears as a crudely pixelated blur through the lens of the surveillance camera. Marcus—with Dedsec's help—is able to mask his identity by hacking ctOS so that his appearance is obscured in the eye of the

surveillance system. While the camera hack is initiated, the player quite literally sees what the ctOS system sees, and what it does not see; if Blume Corporation has been compromised and their network is down, the camera hack ceases to function. With his ability to hack the ctOS surveillance camera network, Marcus can explore the streets of San Francisco with an extended gaze and without fear of facial recognition.

When in control of a hacked surveillance camera, the player can further hack a variety of objects that fall within the camera's visual field. This includes NPC (non-playable character) cell phones, motorized doors, keypads, generators, construction equipment, and a variety of vehicles, including delivery vans and police cars. Hacking these second-layer objects through a hacked surveillance camera unlocks a spectrum of further action, from reading text messages on a passerby's phone to bursting a water main. When wielding a hacked surveillance camera, the player can also hack additional surveillance cameras, which shifts the player's perspective to the newly-hacked camera. Hacking one camera after another can result in a string of shifts in perspective, potentially moving the player's POV further and further from the Marcus avatar. In certain scenarios, the player can hack into a body cam located on an NPC, so the player's perspective is at the whim of the character moving through the gameworld. At any point the player can end the camera hack—or sequence of hacks—by pressing the "circle" button, which jumps the perspective back to the game camera tethered to the Marcus avatar.

A typical camera hack gameplay sequence might feature the player's perspective jumping from: Marcus → Surveillance Camera → Marcus. A more complex camera hack might constitute a sequence as follows: Marcus → Surveillance Camera 1 → Surveillance Camera 2 → Surveillance Camera 3 → NPC Smartphone → Surveillance Camera 3 → Surveillance Camera 2

→ Surveillance Camera 1 → Marcus. In the latter example, the player might be tasked with infiltrating a tall building which appears impenetrable from Marcus' street-level view. The player, however, could hack one surveillance camera after the other until they have a vantage point peering into an upper floor of the office building where an NPC is chatting on his cell phone. Having hacked the cell phone, the player would overhear the NPC reveal a weakness in his company's security infrastructure—a bit of information (a password perhaps) that will give the advantage to Marcus, who is still at street-level in front of his laptop. Having gleaned the necessary information, the player could return to the street the same way they arrived in the office or they could simply 'break' the chain (by pressing the "circle" button) and return directly to the game camera hovering behind Marcus. The length or complexity of the sequence does not always determine the duration of time the player spends carrying out a camera hack. The simpler sequence above (Marcus → Surveillance Camera → Marcus) might play out over several hours if the player is content with watching the gameworld through the lens of the surveillance camera—or if the player leaves the room after having hacked the camera and then returns sometime later to continue play. There is (usually) no time limit on operating a hacked surveillance camera. The second more complex sequence might unfold over seconds if a dexterous gamer is bent on advancing through the gameworld as quickly as possible. Indeed, the camera hack is oftentimes the best—or only—means for advancing through the game. That is, numerous moments in the gameplay experience demand that the player hack a camera, or a string of cameras, to complete a mission or to advance the central (or side) narrative. If the player is unconcerned with fulfilling the game's objectives and would rather simply explore the gameworld, the camera hack is often the only means for unlocking pathways into new areas.

Whether prompted or by choice, the *WD2* player inevitably hacks a multitude of surveillance cameras.

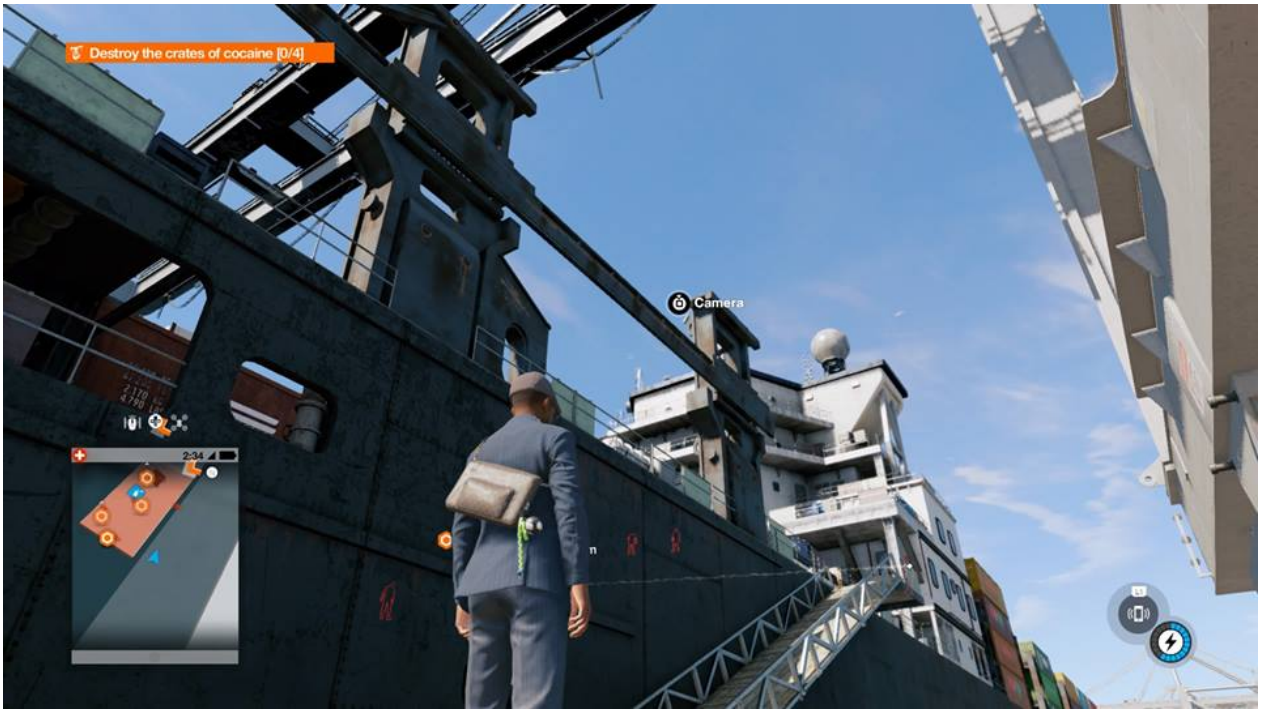

Fig. 3. 6. The player spots a surveillance camera on a freight ship.

Fig. 3. 7. The player hacks the camera on the freight ship and gains a perspectival overview of the potentially dangerous area.

By persistently severing the player's perspective from the onscreen avatar, the camera hack ruptures the hand-eye coordinated harmonies and haptic reflexes forged between left and right thumbs and thumbsticks since dual control was introduced in the mid-1990s. The haptic power of the camera hack lies in the ubiquity and longevity of the system it deconstructs. Dual control, as noted by Keogh, has shaped countless individual gameplay experiences while making a substantial historical-cultural impact on (home) gaming generally:

> The complex combination of avatar and camera movement across two thumbs simultaneously, one's movement relative to the other, is of fundamental significance to the embodiment afforded to the player as both acting character and viewing audience by conventional contemporary gamepad play and the spatial navigation of 3D worlds. It is also one of gamepad play's most complex and difficult-to-learn behaviors. Through the 2000s, as 3D navigation has become more ubiquitous in console videogames, the thumbsticks are the new resting place for the literate gamepad player's thumbs ((...)).[164]

After initiating the camera hack, the player undergoes a perceptual system shock as the swing in perspective rapidly undoes "the complex combination" of dual control, recalibrating the player's agency and embodiment—that is, rewiring the player's sensorial and narratological entanglement with the gameworld. The avatar's absence is all the more striking because dual control is not just a habit; as "one of gamepad play's most complex and difficult-to-learn" control schemas it is also a hard-earned skill. Launched from the comfortable position just behind Marcus to the alien frame of a surveillance camera (perhaps wedged beneath a traffic light), the player's eyes flit over the screen space in search of the (now absent) sense-making focal point around which all action is expected to gravitate—the avatar. Simultaneously, the player's hands seize up as the left thumbstick goes dead and the left thumb—typically charged with moving the avatar—is rendered useless. With spatial navigation of the 3D world no longer

[164] Brendan Keogh, *A Play of Bodies: How We Perceive Videogames,* (Cambridge: MIT Press, 2018), 104-5.

permitted, the player's sense of perspective loses its forward momentum—its sense of purpose. Now, the right thumbstick and thumb—charged with controlling where the camera points—are responsible for almost all onscreen movement, a lopsidedness registered by the left thumb that aimlessly hovers above the controller in anticipation of dropping back into sync with its counterpart. In a feat of subversive game design, *WD2*'s camera hack exploits decades of sensorial and behavioral training as it explodes "the resting place for the literate gamepad player's thumbs"—leaving destabilization and disorientation in its wake.

However visceral and surprising it may register for the player, the perceptual confusion wrought by the camera hack brings to the surface what was already there: destabilization born of the cyborgian hybridity at the core of all gameplay experience. What Benjamin captures with the push and pull of the Publikum and the Apparatur, Keogh captures with the term "player-and-videogame," a symbiotic entity that embodies "the complexities and tensions and irreducibility of the circuit of videogame play across worlds and bodies where the player and the videogame intermediate each other in reflexive loops."[165] Bound through reciprocal intermediation, Keogh's "player-and-videogame" mirrors the onlooker-and-window as well as the movie viewer-and-screen; symbiotic entities that emerge from a reflexive loop of bi-directional sensorial prosthesis. Echoing Friedberg, Koepnick's fenestral framework hinges on the hybridity—between the human and the technological, the interior and the exterior, the real and the virtual—that links the perceptual experience in Kafka's "Street Window" to the everyday experience of digital window users:

> Like channel zappers, today's window users tend to inhabit multiple universes of symbolization at once. Surrounded by ubiquitous human-computer interfaces, we have learned to live parallel

[165] *Ibid.,* 48.

> lives, to shift our attention fluidly among vastly different sites of attraction, to experience space and time as inextricable hybrids, and, often, to find no essential difference between understanding the screen as our body's extension and experiencing our own senses as a machine's prosthetic limb.[166]

The challenges—for attention, experience, and understanding—facing today's digital "window users" provide the backdrop against which the camera hack operates, as it forces the player to embrace the perceptual dissonance between the avatar and its absence; between propulsion and stagnation; between action and observation. The camera hack makes itself felt through the most visceral means possible; it percussively, rapidly, and repeatedly rewires the sensorial tangle of the "player-and-videogame." Indeed, the glue that holds the hybrid entities of this study together—whether Benjamin's Begutachter, Kafka's onlooker-and-window, or Keogh's player-and-videogame—is a sensitivity to the haptic layers of perception. For the thinkers of this study, embodied perception maps out—and is mapped out by—the space where the Apparatur strikes the Publikum like a bullet; where the window sends the onlooker into the traffic of the street; where the game mechanic hacks through habituated synapses and reattaches them in a seamless exchange of button-presses and algorithmically-honed responses. Coupling an animation sequence with the deconstruction of dual control, the camera hack captures the essence of the haptic epoxy that holds together the "player-and-videogame." A closer look at the camera hack's cyborgian vision elucidates how *WD2* influences the player's perception, and in so doing, opens up new spaces for thinking through the (online) masses and (digital) surveillance.

[166] Koepnick, *Framing Attention*, 21.

When the player initiates the camera hack, the perspective shifts from the third-person, extradiegetic game camera (fixated on Marcus) to the first-person, diegetic surveillance camera (oriented toward a fixed section of the gameworld). The perspectival pathway traveled by the camera hack does not follow the quickest route between its starting and stopping point; rather the game camera swoops back toward the player and then flings itself forward into the eye of the surveillance camera. From the moment the player's perspective is pulled from Marcus to the moment it 'enters' the surveillance camera, the aesthetic of the interface changes from a photorealistic simulation of the San Francisco cityscape to a grayed-out representation of digital interconnectivity. Ever present but invisible to the human eye, this space between cameras is a cyborgian visualization of the internet-of-things:

Fig. 3. 8. The third-person, extradiegetic game camera is here anchored to Marcus, the avatar.

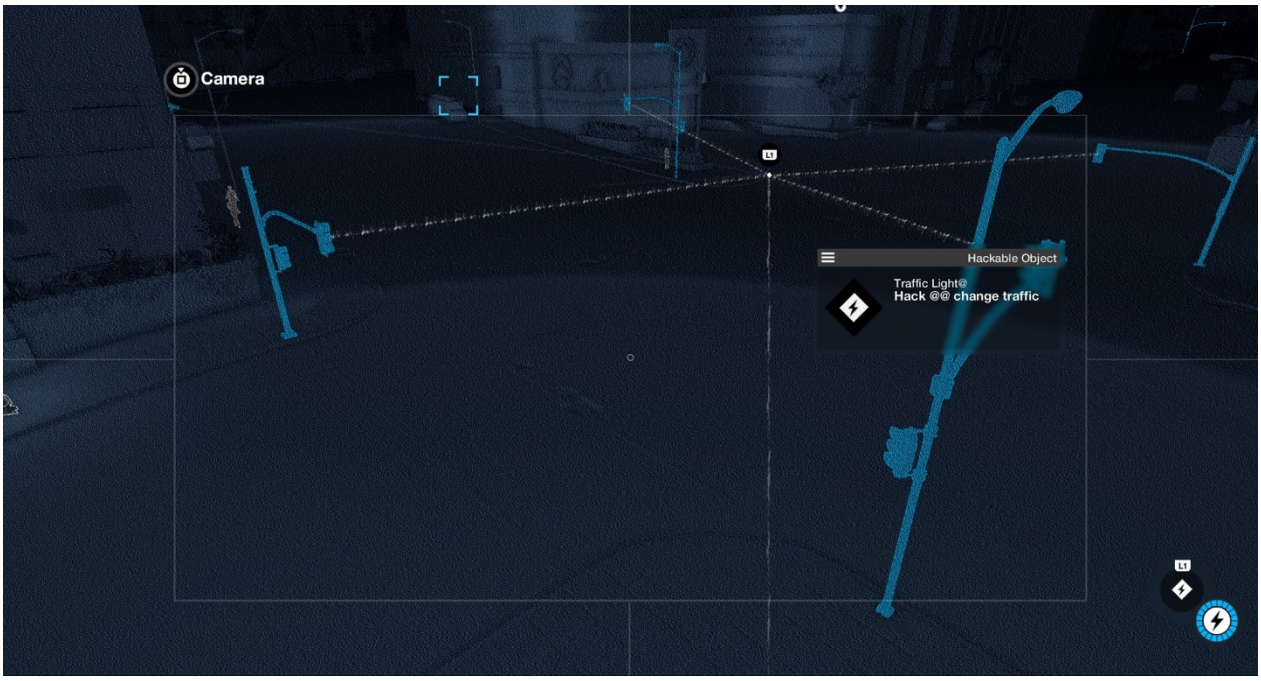

Fig. 3. 9. The view of the gameworld between the game camera and the hacked surveillance camera.

Fig. 3. 10. The first-person, diegetic surveillance camera affixed to a building, and pointed back at Marcus across the street.

In the space between cameras the player is confronted with a hybrid vision of the gameworld in which the shadow outlines of physical reality coexist alongside a vast web of white static lines, signifying the connectivity that links a passer-by's cell phone to a nearby ATM machine, or a store-front surveillance camera to a delivery drone flying overhead. While the camera moves through this internet-of-things, the controller shuts down; when the sequence comes to an end, leaving the player in the eye of the surveillance camera, the controller reawakens—now operating with the deconstructed version of dual control. The camera hack's hybrid aesthetic—its 'X-ray' vision of digital reality—reflects the complex state of interaction between the player and the videogame during this perspectival paradigm shift. As the player's eyes are enchained to the frenetic stimuli streaming through the interface, the player's hands rest in a state of readiness, bracing for the potentialities of a strange, new perspective. The camera hack's animation, with its exaggerated swooping motion and hybrid aesthetic, reveals the liminal spaces of interactivity that are constituted not only by the pressing of the button, but also by the moments between button presses, where shifts in perspective are imbued with the expectation that a button *could* or *should* be pressed.[167] As Benjamin reveals the camera's "snapping" as the epicenter of the modern training of the human sensorium, the camera hack reveals that digital technology reverberates through the human sensorium in and beyond the "single abrupt movement of the hand" and the controller. The hybridity of the player-and-videogame manifests itself especially in those moments between the action, when the player waits in the liminal spaces of potential input. Just as the bow window pulls Poe's sedentary

[167] Keogh, *Play of Bodies*, 217 describes the players inactivity in these moments as an "active experiencing" of the game beyond the traditional parameters of gameplay.

onlooker into the flow of traffic, the camera hack delivers the anticipant player into the gameworld's "unstable spaces and temporalities" where interactivity, connectivity, and human contingency intersect.[168] The moments between interfaces expose the *Chockerlebnis* that immerses today's online crowds in a state of perpetual engagement, as an expanding surveillant web of (mediated) glances and gazes are enhanced by digital technology's persistent expectation of participation. The camera hack expresses Benjamin's *testing as seeing* as spatial metaphor in a digital simulation, thus translating the visceral imagery of the Begutachter into the flitting trajectories of mediated gazes that link bodies and screens.

By exposing an X-ray view of the city's digital interconnectivity, the camera hack animation emphasizes that the player must learn to look beyond the 'physical' everyday surface of the gameworld; the player must learn to see anew. As a game mechanic, the camera hack demands two player inputs: the static activity of pressing the "square button," and the dynamic activity of locating a surveillance camera in the gameworld. It is the dynamic element of the camera hack—when the player scans the cityscape for the next surveillance camera—that entails the game mechanic's challenge. And like any successful mechanic, the camera hack transforms its core challenge into a source of fun for the player. As the game progresses, the player both sharpens their ability to seek out cameras and learns to enjoy the search for new perspectives. The camera hack trains the player to successfully and *willingly* adopt an ever-changing multitude of new vantage points—to see the gameworld as both an iconic American metropolis as well as a digital sea of perspectival potentiality. Rewired by the camera hack's animation and its haptic manipulations, the *WD2* player grows accustom to navigating the

[168] Koepnick, *Framing Attention*, 17.

avatar through urban settings while persistently extending their perspective through the network of viewpoints embedded within the city. Indeed, the player grows accustom to both playing *with* the city as the setting for the Marcus avatar, as well as playing *through* the city as an extension of the city itself. With every successful camera hack, *WD2*'s San Francisco encroaches further into the perceptual and narratological parameters typically occupied by the onscreen avatar. Like Benjamin's flâneur or Kafka's onlooker, the *WD2* player-and-videogame emerges from the intersection between body and screen, between avatar and (surveillance) interface. That the player should play the city just as they would the avatar is a notion reflected in the comments of Thomas Geffroyd, *Watch_Dogs* Brand Manager, from the exclusive interview I conducted with him in the context of this study. Geffroyd explains that the primacy of the city became pivotal to the design process and the overall identity of the *Watch_Dogs* series:

> One of our feelings was that we did not want the world to be passive. We wanted to have an active world, we wanted the driver in the car to participate in the experience: We wanted it to be dynamic. So the smart city idea came pretty fast to us. And then from the smart city thing, the opening was, "Hey, how do you leverage the smart city thing? You hack into it." So, then came the hacking part. And the next step was, "Hey, maybe we should have the character go out of the car and not just be stuck in the car, driving." Which gave us a lot of challenges but also a lot of opportunities. And we said this is no longer a driving game. You are walking everywhere. And then the idea of the city as a character in the game, or at least a gameplay device, and not just a passive background came very strongly.[169]

Following the lead of industry giant *Grand Theft Auto*, the *Watch_Dogs* series was initially designated to be another open world game with an automotive-focus—an open world driving game. But, as Geffroyd recounts, the design team's desire to bring the city to life demanded that the pace of gameplay be slowed to a stroll—the driver became the flâneur. Feet on the pavement, shoulder to shoulder with the masses, the *Watch_Dogs* player was brought to a

[169] Geffroyd Interview, Appendix A, lines 241-50.

pace at which the city could be better observed and absorbed. The deceleration from an automotive to a pedestrian pace is then intensified by the camera hack, which brings physical navigation to a standstill while promoting player observation of the gameworld. In addition to halting the pace of play, the camera hack was crucial to activating the presence of the city as it embeds the player within the city skyline itself, camera by camera, transforming San Francisco into a "character in the game" through which the player perceives and understands the gameworld. While deepening the player's connection with city, the camera hack transforms the most recognizable icon of surveillance society—the camera—into a symbol of connectivity; a gateway to new perspectives.

While the camera hack grants access to a city-wide surveillance network, it does not help the player realize fantasies of scopic control or visual synthesis. Rather the camera hack pushes the player to contend with the perceptual hybridity—and destabilization—engendered by an ever-shifting multiplicity of perspectives. Like today's digital window users, players of *WD2* "inhabit multiple universes of symbolization at once," a state of perceptual hybridity that not only impacts their bonds with the avatar and the hacked surveillance camera, but also their ties to online communities and the identities they afford. While in the gameworld, the *WD2* player can seamlessly and instantaneously join a co-op campaign, visit the Ubisoft Uplay portal, and reference the DedSec blogosphere; in each case, the player taps into a distinct, yet interrelated, sphere of the *WD2* gaming community. In a co-op campaign, the player teams up with another *WD2* player to complete a stand-alone mission in a temporarily overlapping gameworld; their shared play experience is ethereal and has no impact on either player's unique narratological trajectory. In the Uplay portal, the player might join a *WD2* community

event—such as a rave on the Golden Gate Bridge with guest 'appearances' by real world DJs; during these events, players chat with one another through text boxes as well as through headsets. In the DedSec blogosphere, the player adopts the role of a DedSec "follower," gaining access to a series of short videos about the realities of digital surveillance, as well as blog- and video-posts about the exploits of Marcus Holloway and the DedSec hacktivist collective. The transmedial implications of the latter example are especially compelling in the context of *WD2*'s central narrative. Rather than collect 'Experience Points'—the typical method for calculating a player's progress in a game—the *WD2* player, as Marcus Holloway, amasses DedSec "followers" by carrying out missions against the Blume Corporation. While perusing the DedSec blogosphere, however, the *WD2* player—temporarily detached from Marcus—reads about their own in-game exploits from an outsider perspective, that is, by stepping into the mass of online "followers." Moreover, Marcus' ultimate success, and the success of DedSec, hinges on the ability to gather data from their massive online community of "followers"; similarly, the skilled *WD2* player, who streams gameplay footage and posts screenshots, amasses followers on the Uplay portal, where Ubisoft tracks individual, anonymized player data and achievements in order to grow the gamer community and tailor the online experience to player preferences. Across each permutation of *WD2* identity, the player is confronted with the trade-offs—both

real and simulated—that constitute the hybrid existence of the digital window user, hovering between anonymity and connectivity, between privacy and visibility.[170]

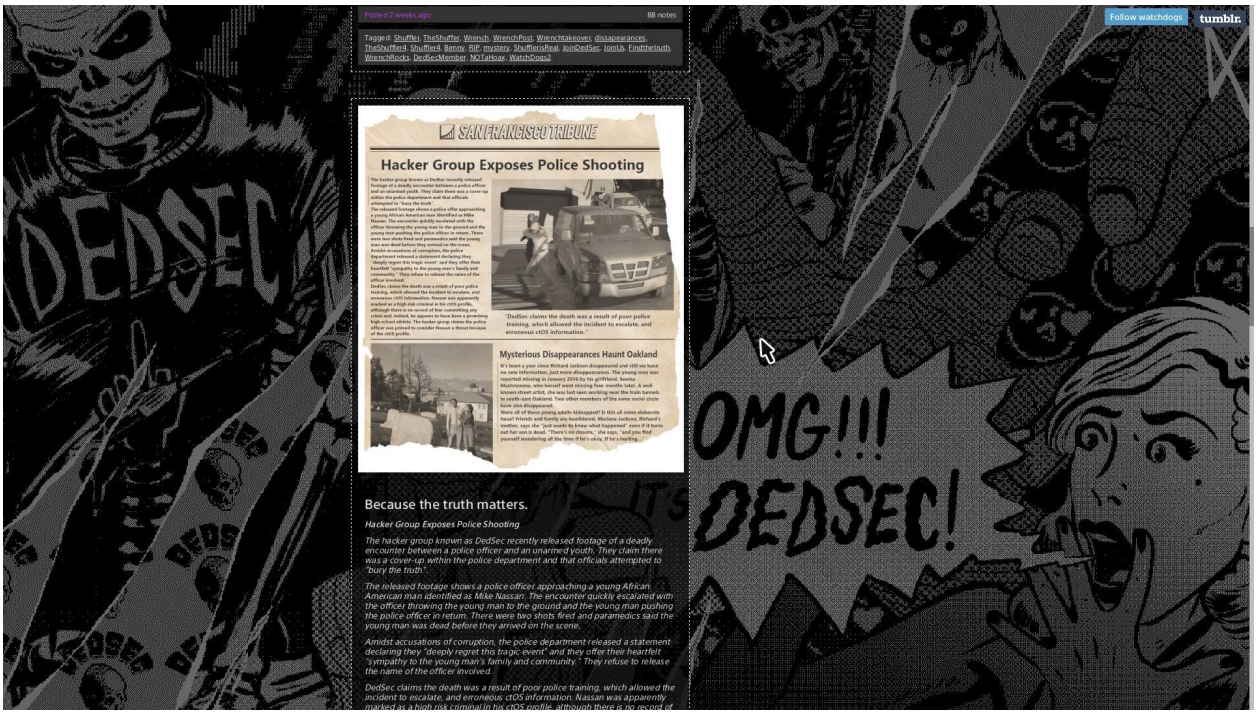

Fig. 3. 11. The Dedsec blogosphere, where players can read about their in-game exploits.

[170] Reflected in the camera hack's persistent play of perspectives, the WD2 player is pushed to negotiate a spectrum of digital gazes that constitute what surveillance scholar William Staples calls "hypervisuality.' See William G. Staples, *Everyday Surveillance: Vigilance and Visibility in Postmodern Life,* 2nd ed., (Lanham, MD: Rowman & Littlefield, 2013).

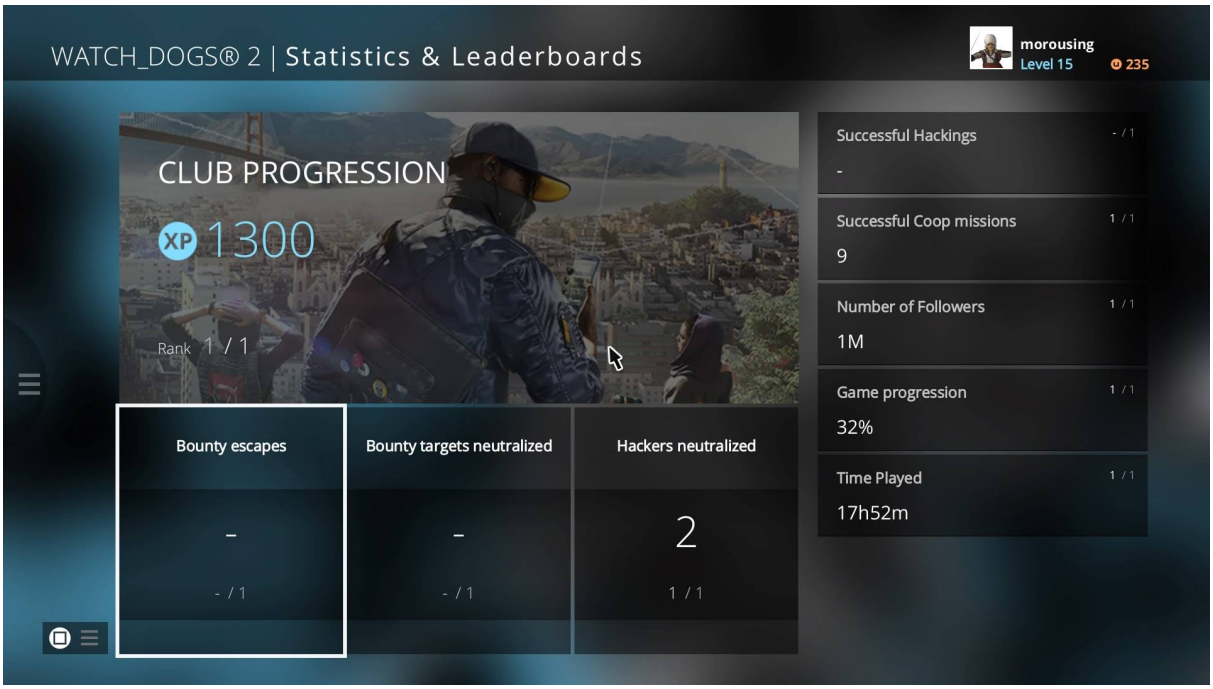

Fig. 3. 12. The Ubisoft U-Play interface.

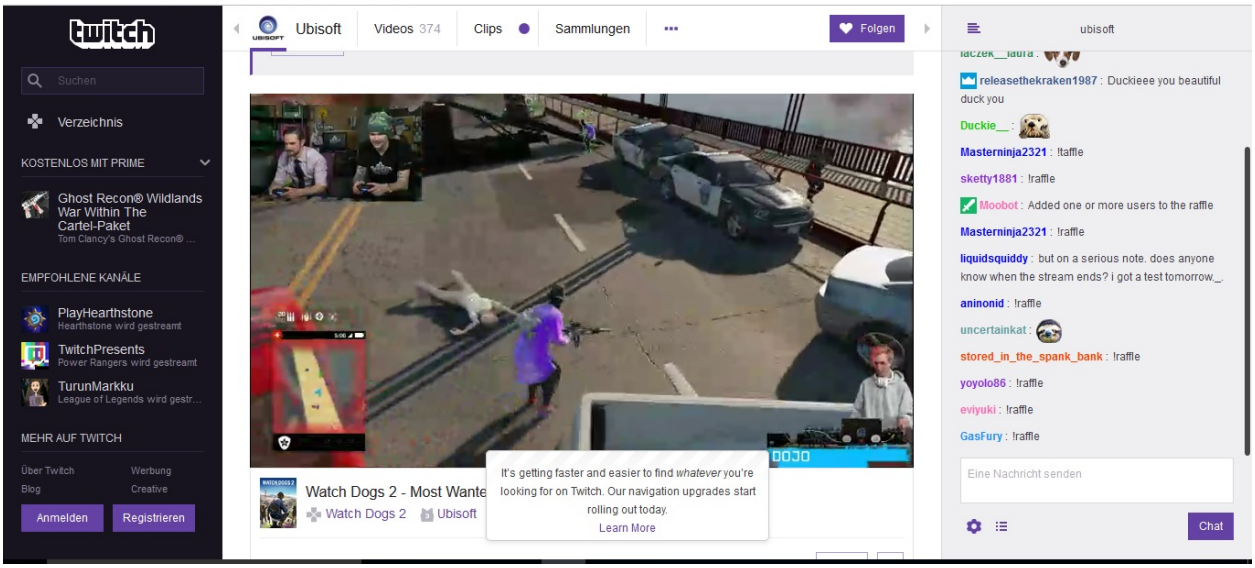

Fig. 3. 13. Celebrity players live stream their gameplay session on Twitch.

Fig. 3. 14. As a member of Dedsec, Marcus's overarching goal is to "gather followers to take down Blume."

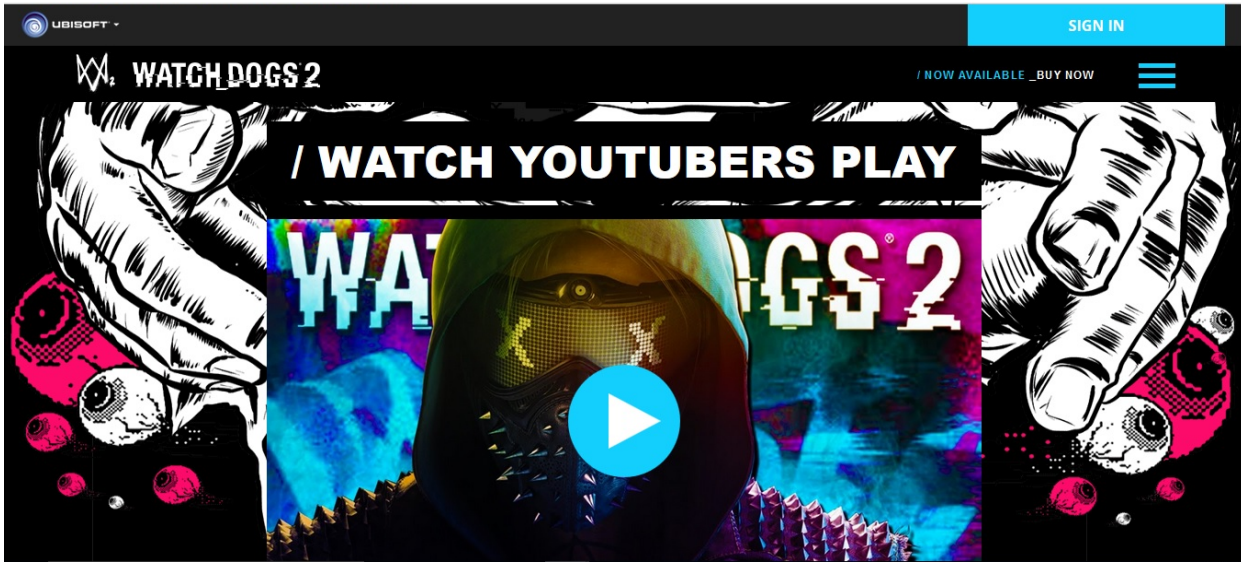

Fig. 3. 15. The portal to the Watch_Dogs 2 YouTube channel.

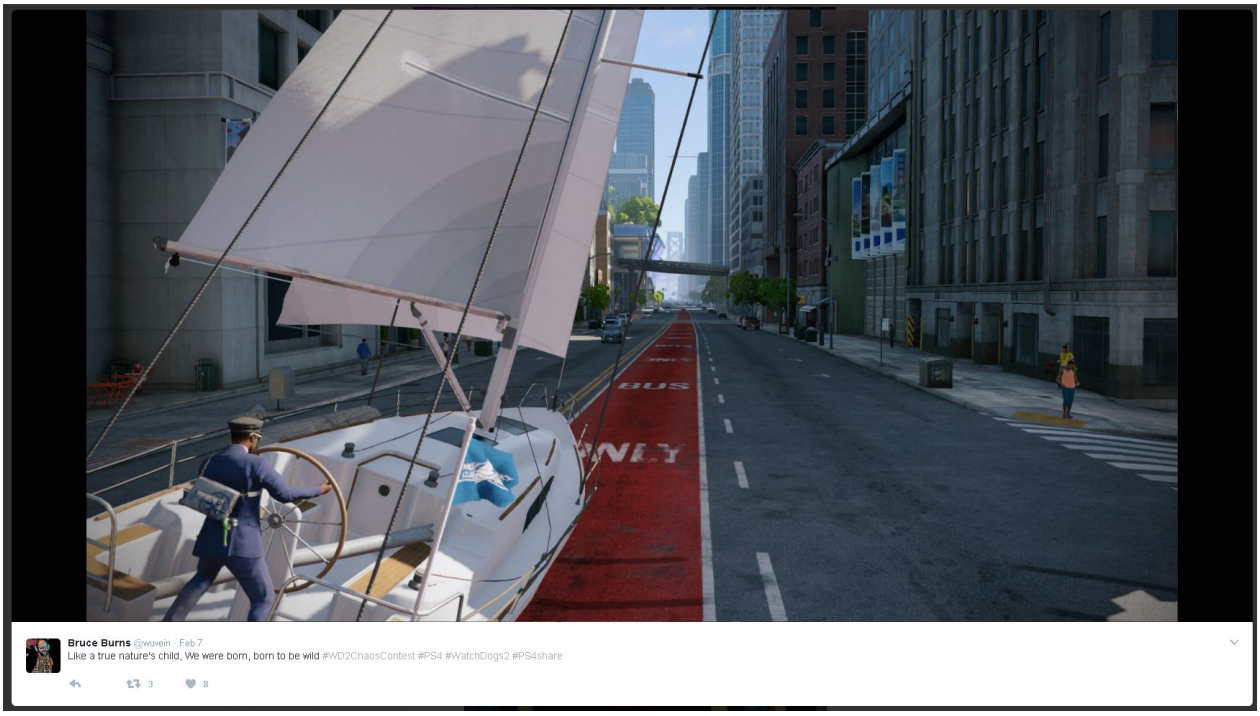

Fig. 3. 16. A winning entry in the Watch_Dogs 2 screenshot contest.

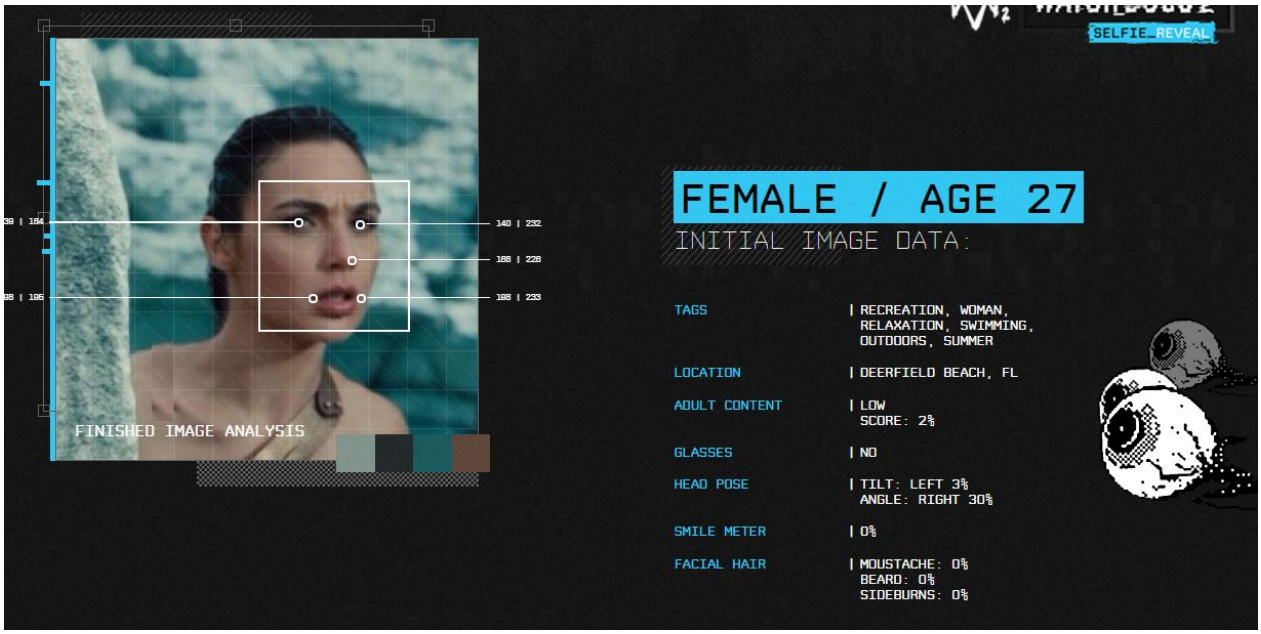

Fig. 3. 17. Online Watch_Dogs 2 application where players submit selfies for analysis.

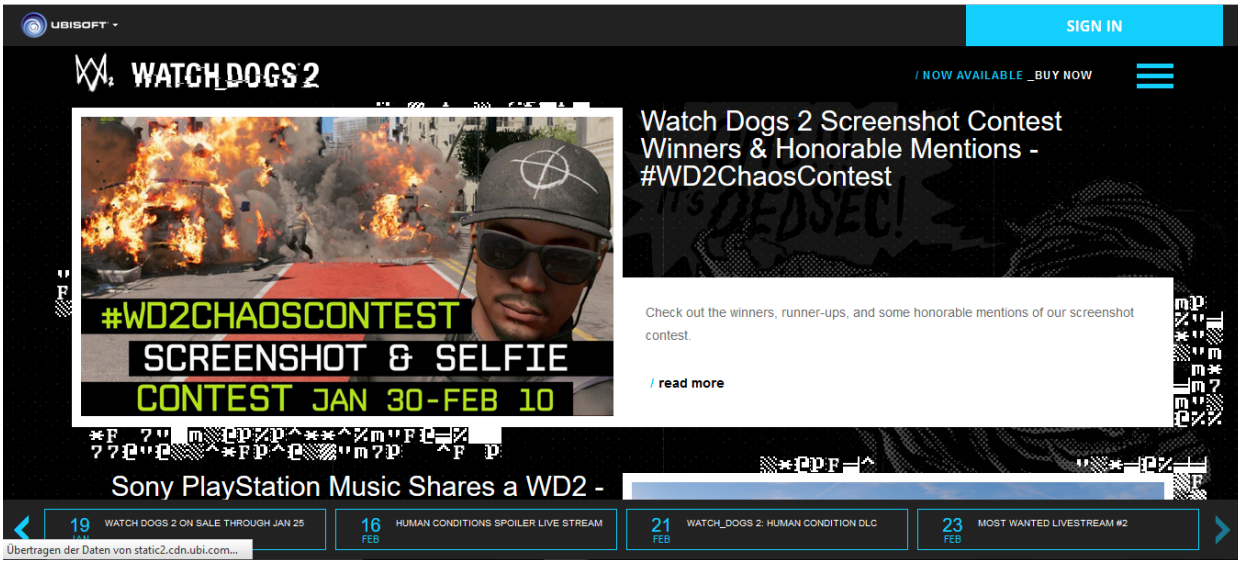

Fig. 3. 18. Events appear in the Watch_Dog 2 community interface and are updated on a daily basis.

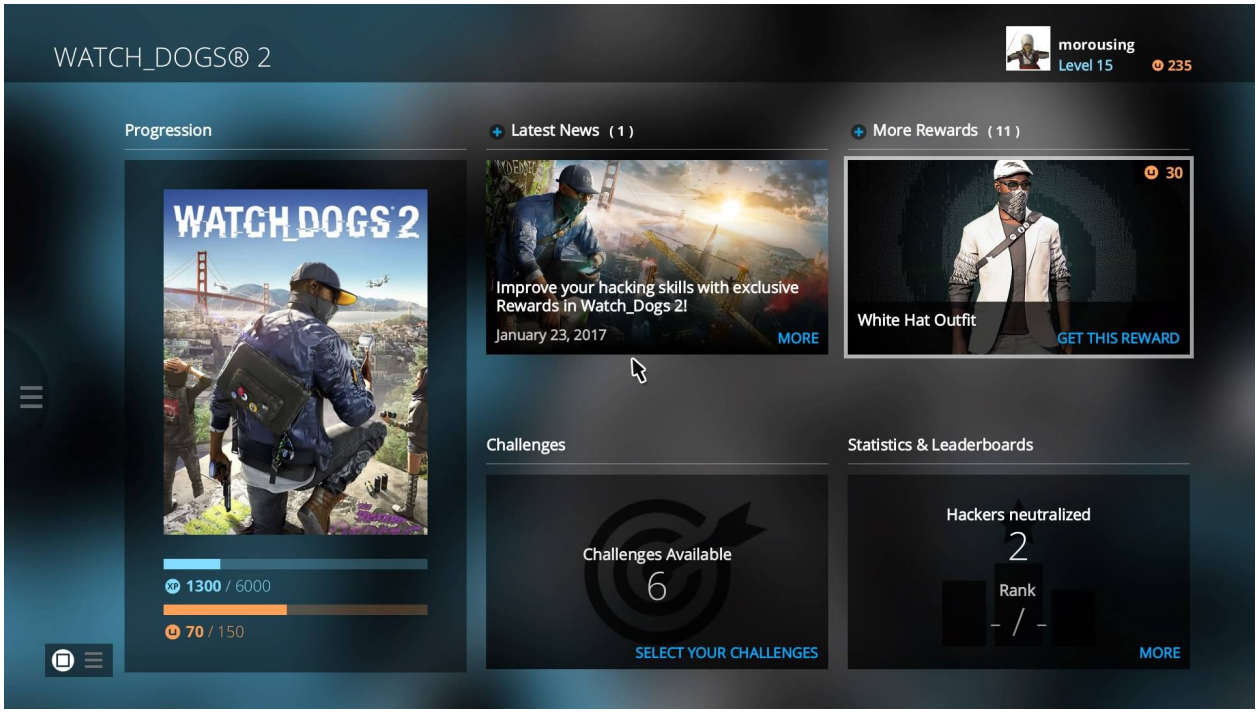

Fig. 3. 19. The Watch_Dogs 2 personal player profile interface.

While the network of surveillance cameras in *WD2* stifles city life through systematic control, the player's individual hacked cameras in no way contribute to the broader network of corporate-political oppression at the core of the game's narrative. By dint of their sporadic and transitory nature, the player's individual camera hacks cannot, and do not, have any sort of widespread or systematic grip on the digital metropolis and its masses. Rather, every instance of the camera hack disrupts the broader surveillance network and serves as a subversion of surveillant strategies, like the elements of human contingency in the window stories by Poe and Hoffmann. Similar to "Corner Window" and "Crowd," *WD2* focuses on the haptic interplay between (avatar) bodies and (surveillant) windows to explore the broader alignment of reality, technology, and the masses—"a process of immeasurable importance for both thinking and perception."[171] Just as Benjamin's overarching investigation of modern visuality situates flânerie and surveillance side-by-side, *WD2* explores surveillance society while unlocking new opportunities for digital flânerie: the hacked surveillance camera becomes the digital training ground for the mobilized gaze. That surveillance cameras are co-opted to serve the aimless, curious, and observational whims of the digital flâneur resonates with the broader design direction of *WD2* as described by Geffroyd:

> ((...)) basically what we have always tried to do with *Watch_Dogs 2* in terms of gameplay was to provide as much freedom to the player as possible. I know it's fairly generic. But one of the goals we had while developing, especially on the design side, was just that we wanted the game to be playable by just sitting on a park bench in the game. So the world around you would do things that are amazing without you interfering with that.[172]

As the general appeal of open world games is their openness—typically showcased in spectacles of (vehicular) mayhem—, it is telling that Geffroyd classifies "freedom" in *WD2* to

[171] Benjamin, "Work of Art," 256.
[172] Geffroyd Interview, Appendix A, lines 22-7.

include the liminal reaches of interactivity: to play the game "by just sitting on a park bench." While *WD2* offers flashy graphics, an immersive narrative, and plenty of action-packed (and sometimes violent) missions to drive player engagement, Geffroyd's classification of player input as 'interference' reveals the franchise's willingness to depart from long-standing design trends in the open world genre that foreground unrelenting urban chaos. *WD2*'s game design further distinguishes itself through its preoccupation with perspective and its play with avatar and interface. Buttressed by the haptic rewiring of dual control, the camera hack also mixes genre expectations that accentuate the hybridity inherent in the avatar as well as the hybridity of the player-and-videogame. Jumping from Marcus to a hacked surveillance interface, the camera hack tightly juxtaposes the intimate view of dual control—established by adventure games like *Super Mario 64*—with the distanced oversight of a city manager—established by simulator games like *SimCity2000*.

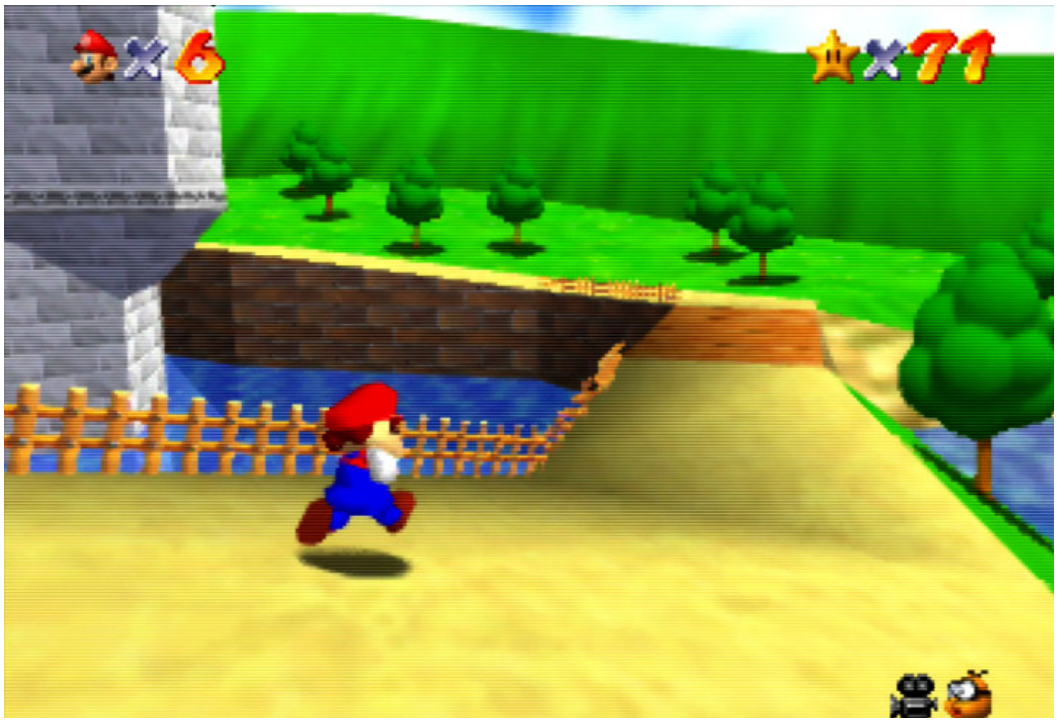

Fig. 3. 20. The intimate view of dual control in Super Mario 64 brings the player closer to the avatar and the action.

Fig. 3. 21. The distanced three-quarters isometric view of SimCity2000 gives the player oversight of the game space.

The immersive set-up of dual control demands constant feedback from the player, who operates the camera as the avatar's accomplice in carrying out (oftentimes extreme) physical feats, from robbing banks to scaling skyscrapers. The dual control camera's proximity to a central avatar is often intensified by an immersive narrative and avatar customization—both of which deepen the player's connection to the central figure in the gameworld. The perspective of the city manager, removed from both the visceral interaction between figures and the complexities of character development, presents the gameworld as a series of systems that the

player carefully monitors and tweaks, amounting to low-level player 'interference.' Whereas open world games—combining immersive street-level detail with expansive, system-based environments—inherently bridge the action adventure and the city simulator, *WD2* intensifies this genre-hybridity by splicing perspectives that trigger both play modes and demand the player seamlessly slide between contrasting perspectives. Similar to Benjamin's family of flâneurs—who are a part of the crowd while standing apart from the crowd—, players of *WD2* experience the visceral intensity of the online masses while maintaining the distance of a drone floating overhead. This hybridity of perspectives—and the related playstyles and genre expectations—is perhaps best captured by Geffroyd's design vision for *WD2*: the player plays from a park bench, immersed in the gameworld, watching but not interfering.

The camera hack forges a gameplay experience that works through and beyond the avatar, thus fostering a haptic mix of playstyles and player expectations. As the camera hack's hybrid perspective activates the corporeal aspects of the interface, it simultaneously reveals the avatar's potential for impacting how the player and the screen connect. Responding to feedback and trends emanating from gaming culture, the designers of the *Watch_Dogs* franchise continue to focus on issues central to Benjamin's media theoretical writing—from the reciprocal potentialities of haptics and optics to the entanglement of surveillance, flânerie, and the (online) masses. Rather than focus on a central character, *Watch Dogs: Legion* (Ubisoft, 2020)—the third and latest installment of the franchise—charges the player with building a unique team of hacktivists by recruiting (algorithmically-generated) passers-by from the surveillance-choked streets of a dystopian London: the avatar becomes the crowd; the player plays the masses. *Legion*'s avatarial innovations affirm the experimental trajectory of *WD2*'s

camera hack, which marries a choreography of divergent cameras with the design team's broader goals of expanding the player's perspective:

> But the main change we made in *Watch_Dogs 2* was trying to ground the personal character universe a bit more into the city, which felt a little separated with the first one. And also it was really about trying to provide a setting where we can express different points of view about technology and humanity today. So to us, instead of a group of characters, to have one single character was really detrimental to our ability to provide different points of view. And try not to be dogmatic about the risks of technology but try to provide a set of points of view or a set of approaches to those issues rather than impose a point of view on gamers but more open doors for them to have some reflection.[173]

Geffroyd's comments outline the sociopolitical aspirations for the project while establishing a synergy between the perspectival play of the camera hack and the "different points of view" that emerge not only from the hacktivist collective at the core of the narrative, but also from the game's eclectic transmedial offerings (informational YouTube videos and blogposts addressing surveillance society). However successful *WD2*'s attempts at broadening the player's intellectual perspective might be, the game's message is certainly enhanced by the inherent surveillance of the videogame medium—a critical irony directly addressed throughout the game as well as its transmedial counterparts_As *WD2*'s central narrative instills hope in the transformative potential of widespread coveillance—its concluding vision is that of a citizenry of Watch Dogs—the game is also careful to remind the player of the trade-offs inherent to interactive media, as laid out by Benjamin and contemporary surveillance studies scholars alike.

Enhancing *WD2*'s explicit messaging, the haptic charge of the camera hack—and its accompanying cyborgian vision of networked society—exposes the inherently surveillant binding of player-and-videogame, just as it critiques the player's (un)witting entanglement in the broader surveillance apparatus of the game industry. From the game's central mechanics to

[173] Geffroyd Interview, Appendix A, lines 7-14.

its overarching narrative, *WD2*'s educational strategies reflect the instructional nature of videogames generally—a foundational truth of the videogame medium illustrated by the analysis of the Lakitu camera tutorial in chapter two. For all the time *WD2* expends telling the story of San Francisco hacktivists, the game's true objective is to lead the player to challenge their own engagement with *WD2* and the broader surveillance apparatus that the game—the developer and the medium—embody and extend. Moreover, the camera hack—and the digital flânerie it enables—reveals the pivotal place of open world games within digital culture. Just as the buzz of the Lakitu avatar announced the continual demands of interactivity, the shock of the camera hack signals the pervasive spread of interactive technology that connects all corners of the contemporary experience in a web of systematic (self-)observation. To emphasize the spatial dimensions of the surveillance necessitated by interactivity, Mark Andrejevic has coined the term *digital enclosure*: "an interactive realm wherein every action and transaction generates information about itself."[174] To demonstrate how the real and virtual overlap in the digital enclosure, Andrejevic points to Google's 2006 plans to provide Wi-Fi for the greater San Francisco area:

> The Internet, for example, provides the paradigmatic example of a virtual digital enclosure—one in which every virtual "move" has the potential to leave a digital trace or record of itself. When we surf the Internet, for example, Internet browsers can gather information about the paths we take—the sites we've visited and the clickstreams that take us from one site to the next. When we purchase items online, we leave detailed records of our transactions. Even our search requests are logged and preserved in the database memories of search engines. Google's plans for downtown San Francisco are, in other words, merely the implementation of this Internet model in physical space: an attempt to make the city "interactive" by enveloping it within the electromagnetic embrace of Wi-Fi. […] When we turn on our wireless connection in the San Francisco of the future, we will find ourselves in a digital enclosure for which the terms of entry include submission to always-on, location-based monitoring.[175]

[174] Mark Andrejevic, *Ispy: Surveillance and Power in the Interactive Era,*(Lawrence: University Press of Kansas 2009), 2.
[175] *Ibid.*

Writing in 2007, Andrejevic prognosticates the everyday trade-off of seamless interactivity for ubiquitous surveillance; life in the digital enclosure would become a reality not just for San Francisco but anywhere populated with smartphone users. Debuting almost a decade after Andrejevic theorized the digital enclosure, the *Watch_Dogs* series garnered fans and acclaim by animating the underlying connectivity and tracing that dictate daily life in surveillance capitalism; the digital enclosure was translated into a tactile environment to be explored, watched, and played. That San Francisco links Andrejevic and *WD2* not only attests to Silicon Valley's place at the epicenter of the digital boom; it also speaks to the broader blending of real and virtual places that makes the open world genre—with its site specificity and claims to real world cities—a uniquely apt training ground for life in the digital enclosure. The digital metropoles of open world games are not mere simulations of real world places; rather, they are extensions and expansions of those places. Relying on the same tracing and mapping technologies, both real world and open world cities constitute and perpetuate one shared digital enclosure, thus exploding the boundaries that once separated the living room and the sidewalk, the interior and the exterior, the real and the virtual. Emerging from these liminal spaces, digital flânerie—as play style and design principle—maps the perceptual potentialities that form, and are formed by, the ongoing tensions and synchronicities of the Publikum and the Apparatur.

EPILOGUE

The two videogames at the center of this study, *Super Mario 64* and *Watch_Dogs 2*, reflect the technological and game mechanical advancements that initiated the return, and spurred on the ascendance of, digital flânerie—not only as a popular play style but also as a predominant design principle. As the 3D gameworlds of the 1990s laid the foundation for the open worlds of the 21st century, the careful gaze of the Lakitu—once in the background—has been expanded and multiplied by a multitude of digital flâneurs and Watch Dogs. The respective release dates of *Super Mario 64* (1996) and *Watch_Dogs 2* (2016) mark two substantial stages of digital technology: first, the rise of the PC-driven web; and second, the rise of smartphone-driven social media. From the Lakitu to the Watch Dog, digital flânerie—especially as it emerges in open world games—reflects and critiques the interactivity, the hypervisibility, the surveillance, and the connectivity of life both online and on social media—life in the digital enclosure. As the training ground for such a life, open world games emulate and perpetuate the incessant data tracking that not only captures the human trace, but also reanimates it as a data double. Open world games have, however, given rise to the digital flâneur, whose aimless wandering and test-like watching not only bear witness to the digital strictures that seem "to close relentlessly around us," but also point to the cracks in the digital enclosure—to the "vast and unexpected field of action" beyond optimization and compliance. Benjamin's flâneur is typically not thought of as a revolutionary figure. But as an avatar of cinematic reception, the flâneur embodies *testing as seeing*—a developmental leap of the human perceptual apparatus that is nothing short of revolutionary. *Seeing surveillantly*, the

contemporary corollary of the Begutachter's test-like gaze, had its flashbulb moment in the summer of 2020, when smartphone camera footage capturing the police killing of George Floyd sparked a series of national (and eventually international) Black Lives Matter protests that have made a substantial impact socially, culturally, and politically. Though they had a revolutionary flashpoint in the summer of 2020, the technological power to document—to capture the human trace—and the perceptual habituation of seeing surveillantly descend from decades of techno-cultural hypervisibility, trained interactivity, and multitudes of mobile gazes—both real and virtual. As the relationship between crowds, media technology, and political power continue to be negotiated, returning to the work of Walter Benjamin is a crucial step toward reimagining the balance between the Publikum and the Apparatur—between the crowds and their digital traces.

If Benjamin's flâneur can draw attention to the fissures in the present day digital enclosure, perhaps it can offer guidance as the next techno-perceptual threshold approaches. Following advancements in Augmented Reality technology and the onset of the 5G network, Kevin Kelley has heralded the imminent arrival of *the mirrorworld*, the next phase of digital culture, which will merge physical reality with the digital universe in the creation of a true internet of things:

> Deep in the research labs of tech companies around the world, scientists and engineers are racing to construct virtual places that overlay actual places. (…) At first, the mirrorworld will appear to us as a high-resolution stratum of information overlaying the real world. We might see a virtual name tag hovering in front of people we previously met. Perhaps a blue arrow showing us the right place to turn a corner. Or helpful annotations anchored to places of interest. (…) Eventually we'll be able to search physical space as we might search a text—"find me all the

> places where a park bench faces sunrise along a river." We will hyperlink objects into a network of the physical, just as the web hyperlinked words…[176]

To conceptualize the mirrorworld's overlapping of the virtual on the real, Kelley turns to the realm of gaming; *Pokemon Go* "gives just a hint of this platform's nearly unlimited capability for exploration."[177] The open world genre, too, offers insight into the complexities of the mirrorworld's blending of the real and the virtual; like players of open world games, citizens of the mirrorworld will be confronted with the haptic demands of interactive engagement—a constant bombardment of visual data to be parsed, digested, transferred, or—if possible—ignored. Moreover, Kelley's description of visuality in the mirrorworld bears a striking resemblance to the player's process of learning to see anew in open world games:

> The mirrorworld promises super vision. We'll have a type of x-ray vision able to see into objects via their virtual ghosts, exploding them into constituent parts, able to untangle their circuits visually. Just as past generations gained textual literacy in school, learning how to master the written word, from alphabets to indexes, the next generation will master visual literacy.[178]

Just as *WD2* animates the networked undergirding of the digital enclosure, the mirrorworld will impose the camera hack's "x-ray vision" onto physical reality. Dependent on technology and strategies from the world of gaming, the mirrorworld will not only follow the logic of game mechanics, but it will also look like a gameworld (which, of course, looks back)—*testing as seeing* will become an everyday aesthetic. Benjamin's flâneur—a product of layered, liminal realities—will be needed once again as the mirrorworld fundamentally alters the human perceptual apparatus and the (online) crowds are confronted with learning to see, and to navigate, a novel symbiosis of the real and the virtual.

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[176] Kevin Kelly, "AR Will Spark the Next Big Tech Platform—Call It Mirrorworld," *WIRED,* February 12, 2019, https://www.wired.com/story/mirrorworld-ar-next-big-tech-platform/.
[177] *Ibid.*
[178] *Ibid.*

APPENDIX A

Transcript of Interview with Thomas Geffroyd

Interview of Thomas Geffroyd, Brand Manager, *Watch_Dogs* 1 and 2

Conducted by Curtis Maughan, via Skype on 21 May 2017

Transcribed by Curtis Maughan

On 21 May 2017 I conducted an interview (approximately seventy-five minutes in duration) with Thomas Geffroyd, the Brand Manager of the Ubisoft *Watch_Dogs* franchise. The transcript of the interview can be found below. Geffroyd's perspective is particularly informative because, as Brand Manager, he is involved in most—if not all—key phases of the game development process, from the writing of the script, to the design of the gameworld, to the implementation of game mechanics, to the establishment of the game's overall aesthetic. Throughout this study, the dynamic between the designer and the player—like the dynamic between the flâneur-artist and their reader—provides the backdrop for discussions of learning to see anew and digital flânerie. Geffroyd demonstrates that he and his team are acutely aware of the delicate balance between player agency, medium affordances, and design decisions, and the consequences of this balance in encouraging reflection on, and discussions of, digital surveillance. Geffroyd's comments are referenced in Chapter One to establish the open world genre's affinity for digital flânerie, which manifests itself in the increasing commitment to observational, systemic modes of design that characterize the changing face of *Watch_Dogs* franchise. Geffroyd's perspective is crucial to the central argument in Chapter Three, namely, that flanerie and surveillance are corresponding phenomena that emerge from the

participatory, haptic media of the 20th century. Geffroyd's comments, in sum, point to a general trajectory in the open world genre that challenges long-standing notions of interactivity, and in turn, pushes our understanding of what videogames are and what they could be.

Curtis Maughan [CM]: As Brand Manager, what were your goals moving from *WD1* to *WD2*? And how did you achieve those goals?

Thomas Geffroyd [TG]: Yeah, I think the first element was really, this was a sequel of a new IP, new IP are always super hard to create because you're just swimming in the unknown, so you release the game and there were things that we needed to fix … Fix what could be fixed and ditch what couldn't be fixed.
But the main change we made in *Watch_Dogs* 2 was trying to ground the personal character universe a bit more into the city, which felt a little separated with the first one. And also it was really about trying to provide a setting where we can express different points of view about technology and humanity today. So to us, instead of a group of characters, to have one single character was really detrimental to our ability to provide different points of view. And to try not to be dogmatic about the risks of technology but try to provide a set of points of view or a set of approaches to those issues rather than impose a point of view on gamers but more open doors for them to have some reflection. So we try to be as neutral as possible in the ways we describe, or inform the gamer about the issues at hand.

CM: Yeah, that's a point well taken. And I think the conversation that you can have with *WD*, and I say this as a teacher, that the game is rich for the conversation it inspires. I'm wondering about that though, about this fine line of creating a big budget mainstream game, so making something that's a lot of fun to play but not being too didactic. How do you realize that? What are you doing through, for example, gameplay, that opens up some of those discussion you want to have with gamers?

TG: I'm talking on behalf of my creative directors, but basically what we have always tried to do with *Watch_Dogs 2* in terms of gameplay was to provide as much freedom to the player as possible. I know it's fairly generic. But one of the goals we had while developing, especially on the design side, was just that we wanted the game to be playable by just sitting on a park bench in the game. So the world around you would do things that are amazing without you interfering with that. So we went extremely systemic in everything we've been doing. So the game is mostly comprised of systems interacting with each other, be it the civilians, be it the mobs, being what we call felony which would be the triggering mechanism that puts all of the systems together and create some unexpected moments or create some, what we'd love to call, water cooler discussion time. "Oh, have you done that?" "No, I haven't done that, I didn't know it was possible!" That was someone's experience while playing it. So it was really about seeing, we want you to experiment with the game, to experiment with the tool and see what you are going to do with that. So that was the first thing and that is why also we have this group that provides different points of view and have all these discussions. The idea is we won't impose on the gamer, we still do because of the medium, but we are trying as much as possible to limit a strong authorship in the experience, so that players can experience and create their own.

CM: That was really helpful, thank you. You mentioned the medium and I can't help but come to the point that the medium that we are working with is a surveillance system in some ways. In a way, surveillance capacities are hard-wired in the technology. You are going to receive data from the data resulting in an asymmetric balance. Now of course, as reflected in the narrative of this game, you have surveillance as control a la Blume, Duscon, ctOS but you also have surveillance as care, a la Dedsec and the way that they build a community of followers. So how

do you, working with this really rich tension, how do you establish that you at Ubisoft are more like Dedsec, using surveillance technology in a positive way?

TG: I think it comes from, at least to me, and I worked a lot on the narrative with the writers on the tone of the game, to me it really boiled down to an article by Bruce Schneier. It's an article from this guy which is talking about technology as a whole and basically his point of view was technology is just an empty fire, it's nothing more than an empty fire. So when the internet arrived in the early days for the activists basically internet became an amazing tool because with almost no means you could have a message relayed, you could organize, you could do a lot of things. So technology was amplifying and helping those little people achieving something socially. But the thing is technology is always amplifying, it's not selecting what it's going to amplify. So when the big corporations came in with their whole weight and inertia on top of that it was very wrong for them to get into that. I mean, we had eight or nine years of good internet before big companies got in and fucked it up just to sell you things. So we are in a state where some very powerful companies when we technological modernity of our days, amplified even more the insane power they already had and increased the control they already had over us for very capitalistic and strange reasons, which was maximizing profits and selling you stuff. So the idea was more about the resistance. It was not about being good or bad. It was just saying in this kind of world, where you have entities and corporations and governments and even though we don't touch governments for now when you have such entities that have such a huge amount of powers and have the ability to control your life in one way or another, how do you get into the resistance? What does it mean? How do you look at that? And you can either go super depressing *V for Vendetta*, killing people and shit like that, or you can try to say,

we are trying to make a game where people will have fun and reflect on some issues, so let's embrace the real hacktivist approach. Or even the anonymous one, the jester one, which is having fun trolling your way around. So it was really more about assessing a situation which is tremendous powers versus limited powers and a tone you would apply to that to convey the message of this discrepancy of power.

CM: Isn't the video game medium for this kind of reflection in that it allows for play?

TG: I don't know. I think that's a debate that's over my pay grade as we say. What I mean by that, it depends on what you're trying to achieve. I think for a very structured thinking process, for something very structured, there are some linear media that are way better for that purpose because people tend to think in very linear way, they go from A to B to C to whatever. And then in the end you can expose your very own point of view about the problem. So movies, TV shows, novels would be amazing if you really have a message you want to convey and you want to structure and you want to convince people. But what we we're trying to do is not convince people of an idea. What we're trying to convey and convince people about is that the world they are playing is a reflection of the world they are living in. And so all the things we show in a very funny and entertaining way are still relevant in the world they live in and so maybe they could try and look at it and think about it a little differently.

TG: I've got a little anecdote about it with the first *Watch_Dogs*, where I went to London for a retailer show or whatever. And I was shocked, and it had been a long time since I had been

there, I was shocked by the amount of cameras you could find in the streets. Basically there were cameras filming cameras, so that they wouldn't be stolen. To me it was bat-shit crazy. And having worked on *Watch_Dogs* for so long, I was noticing them everywhere. I wouldn't say a paranoia state because I am not there, but it was very strong for me. And I just said it during the meeting, I said, I just witnessed that this morning, coming out of the hotel, and you will play the game later. And I had some feedback from some people after playing the game, and I think we got 57% of the gamers who said after playing the first game and the second one, they had a different relationship with technology because of that. They were noticing that, they were a little more wary of installing application on their phones and things like that. So I think we managed to do something with the medium, which was, you can't really see what's behind the curtain when you're in the streets or using your phone because it's too complicated, but by experiencing those technologies through the game and through the interactive medium and through tidbits, it traced, or it helped them to relate that to their daily routine or their daily relationship with technology and act upon it. Or if not act, at least be conscious about it.

CM: Thank you. And this being conscious about it, this reflection, it then further enriched by the fact that you use this game that revolves around seeing and being seen and you use technology in the game—you can take selfies in the game and then go into the transmedial online space and share those with a community—so there you're using, subverting the surveillance presence to say: hey I'm sharing with you an experience that I had using this technology. So the same tools that are being used to control are now being used to build a community it seems.

TG: Absolutely and I think that's the huge paradox. And that we have to embrace it at some point and not be shy about it. Especially when you know that Ubisoft does Uplay and Uplay tracks the users just like any other platform, it's part of the business and trying to be good. So we could hide that but I mean we are already technology agnostic. What I mean by that is: We don't want to take a stance on technology. To us, technology is inherently neutral. What I mean by that is technology is not good or bad, it's just technology. What people do with that is core to the experience. And that's something, I would say that this is the central pillar of *Watch_Dogs*. We have one sentence that we share within the team. It is: Hacking to humanity. What we mean by that is: technology by itself, it would be useless as a communication topic. However, people using the technology and having to decide what they are going to do, that's not a new discussion. I mean Schopenhauer and Einstein had this one before the bomb so it's not new and we don't want to interfere in this process. We just want to present technology and say to people: We are not your old uncle, you know, at the end of the table, "In my day we didn't have cell phones and we were happier." Because this is not who we are. Because we love, I love technology. I enjoy it tremendously but you have to, especially in these days we are reading so much, you have to take a step back from time to time to look at what's happening, try to understand what's happening behind the curtain of tech because this (holding up his cell phone) this is way too easy. I mean you talk to people about their smart phones. Most people have no clue what's happening behind this except for the license and agreement and that is where we try to do something.

CM: You have these wonderful videos— "Internet of Things" where technology is actually controlling those who use it. The fact that you encounter these videos as a player of this game is wonderful. I'm saying that as a fan but not as an academic.

CM: Returning to something you said earlier, let's focus on the tension in Open World games between their openness and the central narrative. To me that's a fascinating conflict or tension or grey area, and I love how this works with *Watch_Dogs*. And I'll give just one example: You have this Gesture Wheel for interacting with NPCs and I don't really see any utilitarian usage there. It's simply a means to interact with the game world. Earlier you said you work closely with the narrative: how do you deal with the inherent conflict between openness and a central narrative? Or do you even see that as a conflict?

TG: It can be a conflict, but I think the idea is, we have to be honest, we are still creating games to sell them and to have as many people play the game and enjoy the work as possible. I'm not even talking about money, I'm just talking about the pride of being a creator. And when you have so many creators, you want to have as many people as possible to enjoy the game. And we are doing AAAs, you know? We're not indie or a small team focusing on one thing. We have to justify the huge amounts of money the companies are giving us to have fun for so many years. So some people really enjoy the sandbox approach, some people really enjoy the world immersion. They like to explore, they like to experience the world and this wheel of interaction is another system we've put into it so you can created some events and the world will respond to you. However, there is a huge part of the gamer community that still enjoys a well-crafted

narrative that goes from A to Z with a character that has an adventure and evolves throughout the experience. And this goes back to our most primordial human traits of being around a fire in the woods and having someone tell you a story. And we're not shy about this: Some people enjoy the authored part of the game. So I think the idea is to have—and this is the way we work—we have a world team designing world activities but then we have some spaces saved for us to craft the narrative and then it is for the player to decide which way they want to go. Does he want to follow a narrative or does he want to have fun and explore with the systems? And sometimes the two collide because within a mission you can still have systems just popping up and doing some crazy things while you are playing. So I think it's most about being able to deliver a great experience for different types of gamers within the same space. Which is a different experience when you look at for example *GTA V*. *GTA V* had this one load up for a very well-crafted single-player experience. But when you go multi-player, you have to load another instance of the world and do something over there. So I think we wanted our world to be seamless on top of that, we wanted to have everything…narrative and multiplayer together in the same space. You could go in and out of games, there's people all around you, sharing their game sessions without crashing your true multi-player elements in the middle of that. And I think I have been very vague on this answer and I am sorry about that.

CM: Not at all. This is incredibly helpful and enlightening.

TG: But for the relationship between the two. To me at least, I mean, for a designer has a vision of an open world and how it should behave. But to me, the possibility to be able to not only

experience a well-crafted story with interesting characters and exciting moments coupled with some world elements that are popping up everywhere and make you feel like you're there and that are not as authored as the main narrative is the best of both worlds. For example, I am not an open world experimenter, I don't dig *Minecraft* at all, and when I play a *GTA*, I go through the main narratives and basically when I'm done with that, I'm done. But I know people that enjoy, and if you look at *GTA* and the longevity and how people are digging every content they can provide, there are different shapes of gamers and we try to satisfy their needs. And I think it works pretty well. I think we find the recipe for us and I think *Far Cry* was very informative in this idea of being able to craft a strong narrative within a very systemic environment.

CM: It makes sense now, having played both *Watch_Dogs* games, that you are concerned with topics like the interface between technology and humanity. And I wondered, if it's providence that you had Snowden for *Watch_Dogs 1* and you have the kind of reexamination of social networks, dataveillance and Trump for *WD2*.

TG: It's funny because I was in San Francisco two weeks ago giving a conference with Violet Blue who is a techno-journalist and we were talking exactly about that, about how *Watch_Dogs 1* and *2* have been pretty prescient in foreseeing a future, a close future and I have to say, it's easy because of hackers. And it's as simple as that. Because I spend most of my time with their community and basically they're the ones basically seeing the problems before they occur. They are knee-deep in the tech and they realize all of the little elements, but it's not medial, it's not in the media. The media only reports the big problems but they don't report the fear or the

concerns of the hacking community, so we do that. And by spending a lot of time with them, we end up isolating some points and saying this is not a stupid concern, this is a real concern, we should tackle that. And I wouldn't say by chance, because that's not the way we should bring that up. But usually when the community comes up with a concern two or three years ago, it pops up in the mainstream. So that's how we have been able to, I wouldn't say able, that's how we leveraged our contact with that community and the fact that we are trying to be as accurate as possible in terms of technology within the game. To be so close to the new cycle.

CM: I'm wondering about your intense research within the hacking community and the authenticity that brings to the game, what is your impression of how the term 'hacking' and our understanding of that term and how that's involved from having a key role in the birth of the internet and the birth of the PC to what is today—the hacktivist face of hacking, *Watch_Dogs*, *Mr. Robot*, etc.? Did this jump from tweaking with technology and sharing information—the birth of the PC, connectivity—to hacktivism today? Is there a lineage there? Is there some kind of through-line? Or is hacktivism something that we have to understand as its own thing?

TG: I think it's…I'll revert back to the amplifier role of technology. I think that's what hacktivists, they are just using a super powerful tool and, which they can use under the guise of anonymity, which is not something we should forget in an age where there are cameras everywhere and you're tracked everywhere. To be a hacktivist is a risky business now, it's not just when you're having a meeting with your friends or you're demonstrating in the street. I mean, you're surveilled 24/7. What I think about the hacking stuff, the image of the hacker has been

extremely negative for so many years and it still is today. The 400 pound hacker in his mom's basement is still pretty prevalent. And this is something we always tried to fight against. Because I love hackers, I've been a part of their community for 20 plus years now and we wanted to show the real face of hacking, especially in the sense that without those guys, a corporation could whatever the fuck it wants—sorry for my French—and hackers are the only one probing their products and trying things and forcing them from time to time to adapt, because we cannot fully understand what is happening. And I think to me that is the bottom line. I remember this quote: Any technology advanced enough looks like magic to people, I think it's from the guy who wrote 2001, I gotta brain fart, sorry about that…

CM: Clark?

TG: Yeah, Clark. Any technology advanced enough looks like magic. And the more we move forward, and accelerating technology will, I think already starts to look like magic. I mean, just like it's happening now (holding up smartphone) but it's happening. Just like my father used to open the car engine and work on it and fix it, no one can do that today because it's inaccessible. So the idea is also to demystify and the only way to demystify magic is to go through science or experimentation and hackers today are the only ones helping us understanding the technology. Really the other ones want to keep patent, they want to preserve their code, they want to close everything, I mean you can't event fix your goddamn iPhone. And if you go to the US, we even have legal debates about the right to fix. Which is mind-blowing. You buy devices that are no longer yours because of patents and everything. And in this world, anybody can do anything

against us, you know, the people. Hackers are the ones who are helping us to demystify, to understand, to move forward, and to keep some people accountable for their use of technology and for the way they use technology for us and for them. Because it is usually both ways, I mean there is no technology that is just for us it is always for both of us, as in the producer.

CM: That's very helpful. And that brings me back to the central narrative and the way that hackers are portrayed in the game, and the clear difference between 1 and 2 in that you have, you go from a more central character in part 1 and, though you still have a central character with Markus in part 2, he is of course part of a team. And his role within this team and the way he becomes their reluctant leader—I mean he's 24 years old and taking on massive responsibility—I just thought that was a really a brilliant move to go from 1 character to a group. And so I was wondering, along with that change, what other moves did you make to develop what you had in *Watch_Dogs 1* into what we see in *Watch_Dogs 2*? *Watch_Dogs 2* seems so much more diverse. How much of that was crucial to the central change between 1 and 2?

TG: I think it came from… There are two things, the first one was *Watch_Dogs* when it started and the way things happen in a big studio with a big franchise, when we started working, we weren't working on *Watch_Dogs*, we were working on a driver game. One of our feelings was that we did not want the world to be passive. We wanted to have an active world, we wanted the driver in the car to participate in the experience: We wanted it to be dynamic. So the smart city idea came pretty fast to us. And then from the smart city thing the opening was, "Hey, how

do you leverage the smart city thing? You hack into." So, then came the hacking part. And the next step was, "Hey, maybe we should have the character go out of the car and not just be stuck in the car, driving." Which gave us a lot of challenges and also a lot of opportunities. And we said this is no longer a driving game. You are walking everywhere. And then the idea of the city as a character in the game, or at least as a gameplay device, and not just a passive background came very strongly. But the character, the main character of Aiden and the way the story was structured and the way we were working, were not core to the hacking fantasy. It came along the way. It was that legacy we were trying to deal with and move forward. When we started *WD2*, we were a hacking game and it was as simple as that because the franchise was established like that, so we just embraced it and did it more. But it also comes under another pillar of the brand: we understand technology is super wide and everybody's using it. It's not just an elite and we are not in the 70s where 1% of the population had literacy in computer technology, everybody is now computer literate, everybody's phone, and to us, as we were trying to explore this relationship between humanity and technology, we have to be able to explore it in many different ways. What I mean by that, then, as interested as I am about a vigilante guy given powers over technology to perform his vigilante thing, which is Aiden Pierce…I'm even more interested in the activist doing that. I am also super interested in exploring when a grandmother discovers how she is been fucked over by taxes for so many years because it's the first time she has been on a computer and learned how it works or something like that. All this is part of our relationship with technology, so what we're trying to do is create this, focusing *WD* not as a sequential brand but more as a platform to have those discussions. So that's why the ability to change characters and to change tone and to change all

those elements are pretty core to us. And also because it gives a lot of liberty, we can do many, many different things, we can explore many different alleys.

CM: What about violence in these games? I don't want to get in the violence and games conversation but I am intrigued that you can go to a Guns and Ammo store in part 1 and load up and in part 2 you could go through the game without killing anyone. You could tase people, you could of course hack your way through missions and by the time that Horatio is killed, this death is a big deal. If that were Aiden Pierce, Horatio would be just another death, right? Because Aiden is killing people...or there are so many more violent scenarios for him in *WD1*, right, where Horatio's death wouldn't be a big deal. So I'm curious, are we moving towards an open world game that won't revolve around gunplay? Could we completely take gun play out of it and just rely on hacking? Is that a potential?

TG: It is a potential for us, but I don't think it is for the market. And what I mean by that is some people like to run amok, like to break things and shoot people in their face because, you know, this is a video game and they are allowed to do things you cannot do in real life and that's their purpose and flying a 747 in a sim or, you know, playing with a baseball bat in the Warriors video game. The thing is we are not violence-centric, it's really not what we are looking at, however we have to admit that the mechanic of shooting guns and violence has been refined throughout the history of video games and that is one of the greatest, not because of its content but because of its efficiency and the relationship you can have with the world or the videogame itself and its systems. You know violence is a very efficient way to put the characters in relation

with the environment because he is touching it, he is destroying it, he is killing it, whatever it is, it is a very simple mechanic that has been refined so we are good at that. However we understand, what we call ludo-narrative dissonance, we have, by being hackers and touting guns we have a line and we wanted to break this. So that's why you can do *WD2* without killing a single person if you want, you can sneak around. The idea was not to remove the violence, but it was to offer another way to express other relationships with the game and the systems. So in the ideal world, we say we would love to make a hacker game in an open world without any violence. But on the other hand, it would be detrimental to the experience and many people would feel let down if you were to have this huge world and people around without being able to run amok and to shoot at cars and drive on the sidewalk. And that's all part of player agency. That's for him to decide and that's what we wanted to do, just like the systems and everything...I think the bottom-line is we want to provide an experience that the player can go through the exact way he wants. If he wants to use violence, hey, do it, it's your game. I mean, you paid for it. If you want to be sneaky and intelligent and whatever, hey, it's in the same game so have fun with that. But yes, we are sensitive to this and I think it's a mix of market expectation, mechanics, and being able to provide some great gameplay loops for the people and also explore all the ways. And I hope people will latch on to them and enjoy them.

CM: And maybe it's more nuanced and powerful to not be prescriptive but to stop at: this is player agency, you know.

TG: I mean it's just like this uh, you know, Penn and Teller, you have this great quote about, it was about a rape, "I rape as much as I want, but the fact is I don't want to rape, no one is preventing me from doing it, I don't need religion or laws to prevent me from doing that, I just don't feel like it" and I think it's also true in games: you can kill as much as you want, but if you don't want to, you don't do it. I think, freedom is there. This is the freedom of playing games. Because I would rather have laws against that in the streets and I would rather experiment with this kind of freedom within the confines of the videogame, and not real life.

CM: This goes back to player agency of course. I'm wondering, where does the deepness and openness of this world and all the different ways you can interact with it, when does it stop being scripted from your perspective? From your perspective, saying, "Oh we want to move people here or there"—do you draw a line? As you said earlier, you are selling games, you obviously invest a lot of money into this and you need to make money back. When do you say, alright, that's enough openness? Or is that even a concern?

TG: Oh we always want more. That's why we have closers on these projects and his role is coming in and saying, "Stop! You are not doing anything anymore! We deliver the game now." We have on those big productions the closer, and his role is coming in some months before the end of the project and basically telling everyone to sit down and finish the game. Otherwise, you would be making the game for 10 or 20 years and just add stuff on top of that. So, no, I don't think there is actually a line. The real line is we provide the experience we wanted to give,

we think it could be better, we can always be better but at some point we have to release the beast. So I think the limit is the time and the energy we put into that.

CM: That's so great to hear as a gamer because that what it feels like sometimes, especially when you see these communities on UPlay or on PlayStation Live or YouTube, where people are just exploring the gamespace. And I think what's really striking to me about *Watch_Dogs* is that you have NPC-centered walkthroughs made by players, right? So instead of having the focus on the central character, the focus is on the environment, the system. And this goes back to systems interacting with systems that you spoke about earlier and all the ways you can watch that system that have been enhanced by the subversion of surveillance technology. That the most subversive and productive part of the game, to me, coming from the flâneur perspective, just walking though and just looking at the space. With *Watch_Dogs* you can do that at a new level.

TG: Yes, and we take this part pretty seriously, you can tell. The thing is, every time we put in technology, especially the risks of technology, very quickly it becomes a ... it's driven by fear. It's super easy to talk about technology, the risks of technology, embracing fear and you're going to die and do this...but the thing is, as soon as you get into those territories, people don't want to listen anymore. They love their phones so much. I mean you can't tell someone your phone is basically a giant eye in your pocket, tracking everything you are doing all the time and most of your applications are doing that and they're listening and looking and they are tracking you. If I were to start the discussion with that, most people, because they love their phones so much

and technology is so helpful on a daily basis, you know, they would just black out and just not listen to you anymore. As soon as you can package that into a very entertaining package and people can play with that and they don't fear the message or they don't feel the reality behind it, that they are playing with it. Even though the message goes through, they can witness that, they can start reflecting upon it, it's a totally different ball game. So I think we take that as a responsibility to be super-focused on technology and the reality and being authentic and doing our homework about those technologies so that people can experience that in a very entertaining and digestible way, while the content itself is very serious and can spark questions or you know, at least a realization about the world we are living in. So I think it's a, I wouldn't say duty, but it's something we take very seriously. It's rare where you make a game and you feel that you participate into the global social field and you can bring something to the table that will be useful to the people. I mean I understand that killing dragons and saving the princess is very empowering and reflects on, you know, the ability throughout mankind to struggle and to beat the odds, but it doesn't do much in terms of the structure of our society and the structure of our usage of some elements of it. So we feel blessed to address these issues, and we try to do it right, just because of that. This is some kind of responsibility. Maybe we impose this on ourselves, but I think it is a great angle to work with and also for the team to focus on.

CM: Yeah, I think this benefits the game, too. You know, it makes the game more complex and that much more meaningful. And I think, on several levels, that you are opening things up. You go from a one player format to a group dynamic...from the kind of typical protagonist (Aiden

Pierce) to a 24-year-old black male from Oakland. Just by kind of opening up in that way, the game becomes more complex.

TG: Yeah, and I also think it is part of this stance about not being dogmatic about anything. The fact that we have this group that is separate and diverse, encourages the fact that the adventures you go through are tackling many different social issues. It's because we wanted, again, just ... to expose reality. To give a point of view, and to not be dogmatic about it. Just… look that's the world we're living in, this is a symbol of that. And I think we've been, and I'm going to be a little, uh, presumptuous, I'm super happy about *WD2*'s output, because as we were working, having a black character, having a trans character, a very strong one, and tackling different issues from religion and we go with the, uh, all those different elements we are trying to put on a table. We've been able to provide them in a very, I wouldn't say neutral, but a very: "this is the world, this is what it is" kind of dynamic. And to me the greatest satisfaction is that we released the game and we didn't get crucified by the Alt-Right, on the one hand, but also the super progressive left on the other. Both groups have really felt comfortable with what we are doing. And to me that's an amazing success because that means we have been able to provoke them on the passions and just make people discover and look at things instead of just judging things right off. And to us that's a huge, huge, huge success. Just speaking of this one little part, the writers, with the tones, trying to make it right, and also because of the support we had from hacktivists and the hacking community—after all, it is a hacking game—that told us, it feels like the real thing. Which was…"Yes! We spent years working on that!" It feels good.

CM: Right, and I think this speaks to how this game could be used in the classroom. A colleague of mine just did this: he taught a course on hacking, kind of, and its representations in the media. And of course we are not only talking about a representation with *Watch_Dogs*, but also a simulation. And it's ripe with all kinds of conversation topics. In that regard, how are you measuring feedback? What does feedback look like right now, especially with such a different game from the original?

TG: think it's two-fold and I'm gonna be super blunt about that. When we released *WD1*, the expectations were so high because of the new console cycle and we were the poster boy of the new generation and we didn't deliver a game as fun as we wanted. Just because it's a new IP and new IP are very hard beasts to tame and we did the best we could and we were super hurt. The second one, though, had this double challenge. Its first challenge was to reassure people that it wouldn't be like the first one, that it wouldn't be a letdown based on their expectations. So we had to be super cautious about the type of expectations we would raise for this game through its marketing and all those kinds of elements. And the second one was, say, everything that you felt was a bit shaky … or not as good as possible in the first one, and I'm really talking about the narrative, which was pretty weak in the first one and Aiden's character was not as fleshed out as we would have liked. And say, we are going to focus on our characters, we are going to focus on this narrative, because you know the systems were working already in *WD1* and you could already have a lot of fun with the city but if now we were going to focus on what we probably haven't polished as much as we would have wanted in the first one. So, I think it

went through. We didn't have the sales we wanted to have based on the first one. But I think the overall feedback has been super positive and from different groups of people. What I mean by that is hardcore gamers loved it. Some more casual gamers liked it because of the tone, which was light, and because the game was fun. The hacking community, which is one of the bitchiest communities in the universe, was happy about the game, about the game and the way we were portraying them … to the point that now hackers—and these are well-known hackers—are contacting me for participation in the game or to support us in the game, which was not the case for the first one, obviously. We had to find allies. Now people are trying to live for us, with the hacktivist and we kind of … Do you know Gabriella Coleman? She has written about Anonymous and she's basically the world's specialist for hacktivism. She's actually on the board of eQualitie now and lots of things on open source software and everything. And she helped us. At the beginning of the project she came to Montreal to give conferences with the team to explain what hacktivism was and how to look at that and what is trolling, based on the Anonymous early days and all those things that really structured the way we were handling hacktivistism. Even on the hacktivist side, people were pretty pleased with the product. So we have a very positive output of the game. First, because we managed to break the letdown or the perception that didn't deliver what people were expecting. So I think we fixed that. But also many people that didn't know the brand with the first one, really enjoyed the second one, so that's pretty interesting.

CM: That's good to hear. But it would be great if the sales reflected this enthusiasm.

TG: No, but you can't just look at things in a bubble. I think the market was, by the end of last year, the market was pretty much fucked up, sorry. But there were some amazing titles that didn't sell well at all. I mean, just because the calendar was what it was. Because players were still playing. And that's because there is a shift also where people tend to invest a lot of time into one game and the long tale of playing a game has extended a lot. And so people are still playing *GTA V* even though it's a four-year-old game now. But people are still hooked on it and still playing it a lot. And investing a lot of money in that which prevents you from going somewhere else too. But also, in terms of quality games, like *Titan Fall 2*, which is an AMAZING game, really an amazing game, a well-crafted game that should have destroyed everything, didn't sell at all. *Mass Effect* isn't selling. I mean, there is a shift. It was a problematic time in terms of business not just for us but for many titles and for the retailers themselves. So I think in this kind of world we were in, uh, we did pretty well in the end. But also something we realized, well, you know gamers, they love archetypes from characters and we love to play through archetypes because they are fast—people understand them and have they have an expectation of what to do. And the fact that we focus so much on Markus being a hacker, probably was not an archetype strong enough in people's minds, which mean, it's not crystallized enough as of yet. But I think it's getting there because of us; because of *Mr. Robot*; because of series and movies that are trying to tackle the hacker archetype as realistically and efficiently as possible. But it has not yet crystallized into something clear in people's minds. The hacker is either Markus doing good things and being nice or a Russian dude stealing your credit card number. So by focusing on the hero being a hacker, we confused people a little bit. Because they knew from looking at the marketing assets that *WD2* was fun, you know, light,

and funny and everything. But still for the global public it's still not a very well-defined archetype at this point.

CM: Well the change has been set in motion.

TG: Yeah, I think, it's just because I say this a lot in interviews: Hackers are the new Robin Hood and that's how they should be looked upon. There are crooks, there are crooks … people using technology to be thieves. And if there was not digital technology, they would use a knife. I mean, it's just the tool that changes. But the hacker itself, and that's part of what we're trying to do, we're trying to legitimize the hacker as a positive force in our society. Because in the end they are. They are these kinds of people. But also because of their attitude, their refusal of the status quo, which is something we all desperately need. When we can't trust our institutions and the political world, we need those people that still believe that we can change stuff and we can make a—I'm going to sound like somebody to criticize—we can make a better world, in way. Haha. Because we need those people. We've lost them and ... I'm getting old and I don't have the same fire I had when I was younger in terms of changing things and investing time and energy in that. Now, I try to be that with my job, which is quite different.

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