

## Chapter 1

### *The Witcher 3 and Transnational Open Worlds*

CD Projekt's *The Witcher 3* (2015) marks a watershed in videogame culture. This is the moment when the digital studios of the industrializing nations began to produce open world videogames equal in both aesthetic quality as well as mass popularity to the leading works of studios located in the fully industrialized nations.<sup>1</sup> During its first year on the market, *TW3* sold 10 million official copies and received 253 game of the year awards from a variety of media outlets.<sup>2</sup> To be sure, *TW3* was not the first open world videogame created by the digital artists of an industrializing nation to achieve transnational sales success. This was the signal achievement of Polish studio Techland's *Dead Island* (2011), a horror-survival videogame which sold 4.84 million copies over four years.<sup>3</sup>

Yet what *TW3* achieved which no other fantasy role-playing videogame did before was to invent a new kind of open world for the transnational audiences of the post-2007 period. This open world is founded on an equilibrium between two antagonistic design principles, namely the principle of maximum audience access to the open world, and the principle of maximum player agency inside the open world. This is a challenge for the simple reason that transnational audiences are enormously diverse in terms of skill, capacity and cultural background. Each individual player not only brings a different level of skill and preparation to the videogame, but players will improve their in-game skills at variable rates of speed.

*TW3* succeeded in balancing audience access with player choice not through any feat of programming, but through an innovative narrative strategy. This strategy was to link the category of individual choice to its opposite, namely the category of historical necessity. Every choice the player makes has significant consequences on the fates of other characters, on the destiny of various communities, and ultimately on the outcome of the entire videogame. Through the player's actions, the personal becomes the geopolitical.

While numerous fantasy role-playing videogames create fictional worlds based loosely on the real world histories of nation-states and national empires, CD Projekt did something new by creating an open world based on a specifically transnational history. This history is the one hundred and fifty years of history in the Eastern European and Eurasian region between 1795 and 1945, a.k.a. the period between the demise of the Polish-Lithuanian Commonwealth and the end of World War II.

This choice of venue and time-period had two beneficial effects on *TW3*. First, it enabled CD Projekt to critique the past legacies of imperialism, colonialism and neocolonialism in ways no work of interactive media had ever done before.<sup>4</sup> Second, it enabled CD Projekt's writers and quest designers to showcase contemporary struggles for gender equality and diversity, racial justice, and economic justice by using the convenient fiction of a medieval-fantasy setting allegedly set in the far past. The result is an electrifying combination of the tools of historical critique together with the digital immediacy of contemporary citizen journalism.

The power of this combination is visible from the very beginning of *TW3*, when the player steps into the mud-spattered boots of Geralt of Rivia. Geralt is a member of a despised caste of monster-slayers called witchers, humans mutated through magical means to become fearsome warriors. These mutations take a fearsome toll on witchers, altering their appearance and behavior, and causing them to be feared and distrusted by most communities in the game-world. As a result, players witness the violence of 16<sup>th</sup> century dynastic feudalism and xenophobia, as well as the violence of late 20<sup>th</sup> century and early 21<sup>st</sup> century racism and neocolonial militarism.

The main story of *TW3* follows Geralt's search for Ciri, his vanished adoptive daughter, amidst the chaos of a titanic war between the rival empires of Nilfgaard and Redania. Both empires are repressive autocracies with little regard for human or non-human life, and *TW3* shows in detail how the dynastic wars of late feudalism converged with the colonial wars of early capitalism. For her part, Ciri is no damsel in distress, but wields formidable magical and martial powers in her own right.

From a technological standpoint, CD Projekt Red's bravura story-telling achievement had two preconditions. The first was the popularization of hardware platforms capable of depicting 3D open worlds with near-cinematic visual and acoustic fidelity. In terms of price, these platforms run the gamut from Microsoft's XboxOne and Sony's Playstation 4 videogame consoles, which cost \$350 in 2015 dollars, to midrange personal computers costing \$1,300 or less.<sup>5</sup>

Between 2013 and January 2016, the combined sales of the XboxOne and PS4 reached 55.6 million units. Gartner has estimated 1.635 billion personal computers were purchased worldwide between 2011 and 2015. On the conservative assumption that only one out of seven of these computers meet the technical requirements to run *TW3*, and that at least half of all console owners are likely to have access to a videogame-capable personal computer, the potential audience for *TW3* numbered a minimum of 289.2 million by the end of 2015.<sup>6</sup>

The second precondition for *TW3* was the emergence of transnational digital audiences. By November 2015, the number of world internet users passed the 3.4 billion mark, comprising 46% of all human beings on the planet. Out of this 3.4 billion, 2.5 billion (three quarters of all users) are citizens of the industrializing nations. While many of these users rely on mobile devices with limited processing power, the continuing dissemination of personal computers, the expansion of broadband internet, and the spread of social media platforms throughout the industrializing world have combined to significantly increase the size of world videogame audiences.

This expansion of the audience has profoundly changed the field of videogame production. To understand this change, it is worth reflecting for a moment on the differences between *TW3*'s production history and Square Enix's *Final Fantasy 12* (2006). At the time of *FF12*'s release, Square was one of Japan's largest videogame publishers, with revenues of \$1.38 billion in fiscal 2007.<sup>7</sup> Backed by the resources of a billion dollar company, Square's digital artists created one of the finest role-playing fantasy videogames of all time. To this day, *FF12* shines thanks to its combination of superlative voice acting, music, sound design and character development, and a compelling story deeply critical of colonialism and imperial war.<sup>8</sup>

However, Square's ability to reach audiences was limited by some fundamental constraints. *FF12* was published as a Sony Playstation 2 console exclusive, the best-selling

console of its time, and sold an estimated 6.06 million official copies. However, 79% of the PS2's lifetime sales – 122 million out of 155 million units – took place in Japan, North America and Europe.<sup>9</sup> In effect, sales of one of the most popular videogames of the 2006-2012 period were largely restricted to the one billion consumers of the fully industrialized nations.

By contrast, *TW3* was created by a tiny start-up studio located in Poland, a middle-income industrializing nation. While the studio did not have the resources of a billion dollar corporation at its disposal, it did have an express mandate to appeal to all 3.4 billion consumers of the transnational audience, rather than to the 30% of these consumers (roughly 1 billion in number) who are residents of the fully industrialized nations. This mandate was not an accident, but is rooted in the circumstances of the company's foundation as one of the pioneering digital and interactive media firms of the industrializing nations.

In 1994, CD Projekt was founded as a videogame retailer by Marcin Iwiński and Michał Kiciński. The name is a reference to the compact disc, the leading personal computer storage media of the mid-1990s. The company's first major line of business was localization, i.e. the retail distribution of officially licensed videogames in the Polish market. This was challenging market, due Poland's painful transition away from an autarkic economy run by an unelected nomenklatura to a mixed open economy run by consumer demand and democratic elections. Since most Poles did not have the income to purchase legal copies of videogames, they bought cheaper, unlicensed copies from informal vendors.

Yet unlike most of their competitors, the founders of CD Projekt were motivated not by short-term profits, but by a long-term vision. Their goal was to create a legitimate channel of digital publishing and distribution in Poland, and eventually to become producers of videogames in their own right. The first step they took was to treat informal distribution not as a problem, but as a potential solution.<sup>10</sup>

Thanks to their biographical experiences as Polish gamers, the founders of CD Projekt understood that informal distribution flourished because of a fundamental disconnect between supply and demand. Audiences in Poland and other industrializing nations wanted to purchase software, but simply could not afford prices designed for consumers with US, Japanese or Western European income levels (e.g. \$30 to \$60 in 1995 dollars, the equivalent of \$47 to \$93 in 2016 dollars). Since additional copies of digital goods cost almost nothing to produce, these high prices were self-defeating, because they blocked legitimate sales in middle-income and low-income nations. In effect, informal distribution was providing an essential market function by lowering the cost of digital goods to what audiences could realistically afford.<sup>11</sup>

CD Projekt also understood from the beginning that any attempt to stop informal distribution through legal restrictions or copyright laws would fail. This is because every aspect of computing – storage, processing and communication – constantly becomes less expensive per unit of data at an exponential rate. As prices fall exponentially, the total amount of data being stored, processed and transmitted increases exponentially. Conversely, it becomes exponentially more difficult for any commercial entity or government authority to arbitrarily block the informal storage or transmission of data.<sup>12</sup>

The founders of CD Projekt concluded that the only effective way to deter consumers from obtaining digital goods through informal markets was to deliver something the informal sector could never deliver. This “something” was long-term value. Instead of offering the lowest possible price, CD Projekt would offer the highest level of quality at affordable prices. In a

phrase, when customers pay more, they get more.

CD Projekt's first test of this strategy was a retail campaign for the licensed version of Bioware's best-selling fantasy role-playing videogame *Baldur's Gate* (1998). CD Projekt carefully localized the videogame for the Polish market, providing consumers with fully translated dialogue, a free audio compact disc containing the game's sound-track, high quality Polish voice acting, and other incentives to compensate for the higher price of a legitimate copy. While the costs of producing this additional content were significant, the strategy proved enormously successful. CD Projekt sold 100,000 official copies of *Baldur's Gate*, an unprecedented total for an authorized release on the Polish market.<sup>13</sup>

Capitalizing on this and other successful campaigns, CD Projekt established their own in-house studio, CD Projekt Red, in 2002. While the new studio did not have the benefit of a vast production budget or the experience of shipping a successful title under its belt, it did have one key advantage other studios did not. This was the literary franchise the studio chose as the basis for its first videogame, namely Polish fantasy writer Andrzej Sapkowski's *Witcher* novels and short stories.<sup>14</sup> Sapkowski's works were immensely popular in Poland during the 1990s and circulated widely elsewhere via unofficial fan translations, but were not officially published in English and German until 2007.<sup>15</sup>

It has always been difficult to translate popular literary or cinema franchises into popular videogames. Most spin-off videogames tend to be substandard due to time constraints, e.g. Hollywood studios generally operate on a twelve to eighteen month production cycle, whereas top-tier videogame studios operate on a three to four year cycle. Even when sufficient development time and resources are available, the skills required to create compelling interactive experiences diverge fundamentally from those required to create compelling literary or cinematic content.

What made CD Projekt Red's task even more challenging was the unusually high quality of Sapkowski's *Witcher* novels. These novels do borrow from some of the conventions of mainstream 20<sup>th</sup> century Western European and US fantasy literature and cinema, e.g. the use of magical devices as a symbol of technology and the depiction of non-human or fantasy races as a stand-in for ethnic divisions and social inequalities. However, their content is the furthest thing from genre clichés imaginable. Sapkowski delivers a gritty and compelling critique of imperialism, xenophobia and colonial war. He also delivers a nuanced critique of the imperial-colonial masculinity endemic to many fantasy narratives, by showcasing a number of strong and credible female characters.

When CD Projekt Red began production on the first *Witcher* videogame in 2002, they made a key decision which dramatically increased their short-term workload, but which ultimately catapulted the franchise into a top tier videogame franchise. This decision was to avoid copying Sapkowski's stories and dialogues wholesale into the videogame. Instead, CD Projekt Red used the characters and major themes of the novels as templates for all-new interactive experiences. These experiences did not duplicate existing content, but leveraged Sapkowski's work to create a credible game-world. From a narrative point of view, the *Witcher* videogames are digital fan media of the very highest caliber.<sup>16</sup>

To understand why CD Projekt Red chose this strategy, it is helpful to understand the critical importance of digital fan media in contemporary videogame culture. While forms of fan media have flourished at the margins of all pre-digital generations of mass media, digital fan

media has the unique capacity to leverage the power of transnational networks of digital producers and consumers. The first moment this power started to become visible was when the *Half Life* fan community began to use Valve's open source software tools to produce and distribute game modifications ("mods") as free downloads to other fans. The result was a flood of astonishing creativity which culminated in the creation of Neil Manke's *They Hunger* trilogy (1999-2001). This three-part *Half Life* mod, produced by an all-volunteer team who worked without any commercial remuneration, still stands as one of the finest single-player videogame experiences of its epoch.<sup>17</sup>

The scale and productivity of digital fan media continued to grow after the turn of the century, thanks to the proliferation of open source production software and social media platforms. Whereas *They Hunger* was produced by less than fifteen volunteers for a modding community numbering in the tens of thousands, Sony's *Little Big Planet* franchise (founded in 2008) flourished by giving literally millions of fans a powerful set of creation tools to produce non-commercial fan media.<sup>18</sup> Between 2009 and 2011, Markus Persson co-created the single most celebrated digital creation tool of our time, *Minecraft*, in close concert with a fan community numbering in the hundreds of thousands and eventually in the millions. Whereas previous generations of videogames were commercial products before they generated a digital commons, *Minecraft* was a digital commons before it generated Mojang, Persson's commercial videogame studio (Mojang was purchased by Microsoft for \$2.5 billion dollars in 2014).<sup>19</sup>

Far from being a passive bystander of the rise of digital fan media, CD Projekt was one of its key participants as early as 2007. This is the moment the firm decided to launch its very own digital distribution system, called Good Old Games (<https://gog.com>). As a service developed by a gaming-centric company who knew how to succeed in an environment of informal vendors and almost no copyright enforcement, Gog.com did not try to impose 20<sup>th</sup> century copyright laws on consumers. Instead, it offered customers a fair trade. In exchange for purchasing legitimate copies of videogames at prices higher than those of informal vendors, GOG customers received three additional services which significantly increased the value of their purchase.

First, CD Projekt promised to never impose digital rights management (so-called "DRM") restrictions or software on legitimately purchased games. Once customers purchase and download a videogame from Gog.com, they can make as many additional copies on their own device as they wish. This no-DRM policy stands in sharp contrast to most other digital distribution services, which heavily restrict what users can do with downloaded content.

Second, CD Projekt provided customers with free digitized copies of game manuals, posters, soundtracks, concept art and other ancillary media content unique to each videogame. For many older videogames, these materials are often extremely rare and have become collector's items in their own right. Conversely, newer games are rich in multimedia content, making this a useful service for fans of older as well as newer games.

Third and most importantly, CD Projekt treated each purchase not as a one-time transaction, but as a permanent connection. Once customers purchase games, they can download as many additional copies of that game (as well as its ancillary media content) from their account as they wish. In addition, all videogames available on Gog.com receive regular bug fixes, patches and updates to ensure they can be played on a wide range of computer platforms and operating systems.

These three services transformed Gog.com into the cultural equivalent of a membership-

owned credit cooperative. Just as each member of a credit cooperative owns a share of their financial institution, each Gog.com customer owns a share of the entire Gog.com archive. Put another way, CD Projekt treated its customers not as a short-term economic resource to exploit, but as a long-term fan community.

What made this strategy work was CD Projekt's policy of continuous engagement with its customers via social media, combined with a genuine commitment to put the long-term interests of fans head of short-term profits. This commitment is expressed clearly in the company's 2016-2021 group strategy statement<sup>20</sup> as well as in significant policy decisions such as a planned change in CD Projekt's pricing policy, which was rescinded due to heavy criticism from the fan community.<sup>21</sup>

This commitment to the fan community paid dividends when CD Projekt delayed the release of *TW3*, originally scheduled for late 2014, until May 19, 2015 in order to polish the game. The studio had garnered so much goodwill from its customers thanks to its solid track record of customer-friendly behavior that fans accepted the delay with minimal fuss. Conversely, CD Projekt Red listened closely to player feedback after *TW3*'s 2015 release, issuing a number of patches which significantly improved the original release.<sup>22</sup>

One of the greatest benefits of the studio's close engagement with the fan community was the realization that the same principles of fan media responsible for *Half Life* mods and *Minecraft* could also be applied to the field of open world design. Between 2011 and 2015, CD Projekt Red applied these lessons to three existing practices of open world design. First, the studio transformed digital space into digital place. Second, the cut-scene (a.k.a. the in-game cinematic) was transformed into the interactive dialogue. Third, the fetch quest was transformed into the story quest. We will examine somewhat later how the simultaneous emergence of all three innovations drove an equally significant transformation of *TW3*'s game-play, but for now it is worth analyzing each innovation in detail.

Digital representations of space have long been a hallmark of digital media, everywhere from the two-dimensional (2D) videogames of the 1970s to the three-dimensional (3D) videogames of the 1990s, all the way to the virtual-reality (VR) videogames of the 2010s.<sup>23</sup> However, digital space is not the same thing as the experience of digital place. Digital place consists of the player's lived experiences, actions and decisions associated with or related to a specific digital space. As such, digital place is one of the most powerful local expressions of the credibility of the open world to audiences. Popular social networking sites succeed in creating a sense of digital place, because they give users the tools to display, share and edit their own personal media, as well as media they gather from other internet users.

CD Projekt Red's strategy of continuous engagement with the fan community enabled the studio to construct credible forms of digital place, as well as to improve key aspects of this latter absent in the original game. For example, *TW3*'s 1.07 patch enabled players to customize the movements of their player-character (the new version reduced Geralt's on-screen momentum). The same patch also added storage lockers with infinite capacity at various locations in the open world, enabling players to store as many items as they wish. These might seem to be minor additions, but their addition was a powerful boost to the player's sense of digital place. Numerous players found Geralt's new movement pattern to be more fluid and responsive than the original one, while the storage lockers allowed players to save equipment and items as a documentary archive of their past adventures. In a similar vein, various post-release patches significantly

improved the player-character customization and inventory management screens, upgrading the accessibility and ease of use of what amounts to significant digital spaces in their own right.

One of the most important reasons transnational audiences found *TW3*'s open world to be credible was CD Projekt Red's unique approach to building digital place into their open world. Prior to *TW3*, all open world games featured large amounts of repetitive content. As a result, players would routinely encounter the same terrain features, the same settlements, and the same non-player characters across multiple locations. By contrast, every geographic location, every settlement, and every character in *TW3*'s open world is unique. In a conversation with *The Edge* magazine, CD Projekt Red's senior game-play designer Damien Monnier describes the design process as follows:

The first thing we did was create a Living World team to work closely with the Location guys. Location started by creating mountains and lakes in places that made sense. Then they'd look at where villages would go. They'd do their research, understand the criteria that peasants in medieval times would use to decide where to build villages and settlements. Then the Living World team kicks in, populating the village, then placing everything around it, and that's where things get tricky. When is it too much? When is it not enough? We knew we wanted a system that was organic, and that means you can't hard-script things. It took a lot of prototyping. We'd have people around the office playing and one would say, 'I haven't seen anything for 20 minutes,' and we'd know we had a problem.<sup>24</sup>

CD Projekt Red discovered a simple yet powerful solution to the challenge of creating immersive digital places. Instead of constructing an empty map and then filling it with content, each location was designed to be the center of contending forces, each of which players can influence to a certain degree. For natural areas, this means that each location has its own miniature ecosystem, that is to say, a unique balance of predators and prey, terrain features and weather, and flora and fauna. For settlements, this means that each location has a unique distribution of competing skills, occupations, professions and affiliations.

The main benefit of this system of dynamic balance is that it allows for endless local variation, while preserving the narrative coherence of the open world. If players hunt down the wolves in a forest, the population of herbivores which those wolves normally feed upon will increase. Conversely, player actions in settlements will enhance or diminish the status and power of specific social groups and communities.

This principle of dynamic balance also applies to the game's environmental settings. The world features an extraordinarily wide variety of vegetation, ranging from swamps and forests to snowbound mountains. It also includes a full day-to-night lighting cycle, randomized weather conditions ranging from bright sunshine to fierce thunderstorms, and a well-designed traversal system allowing players to walk, run, ride, swim or boat to almost every location in the open world (this system also includes a fast-travel mechanic enabling players to avoid tedious backtracking). This level of environmental detail adds to the immediate experience of player immersion as well as to the long-term prospect of replayability, since players rarely experience the same location in precisely the same way, due to variations in lighting, weather conditions, and the consequences of previous player actions.

One of the most compelling examples of this strategy of dynamic balance is *TW3*'s ambient sound-track, described by CD Projekt Red senior sound designer Pawel Daudzward as

follows:

We put a lot of effort into this area, since it's a layer that is with the player at all times. We opted to base everything on dynamic, living systems rather than resorting to single tracks that would have the full set of ambient sounds burned into them. So we set everything up to respond dynamically to various parameters such as wind speed, rain/storm intensity, time of day, location... To work, everything had to be split into its individual components: wind characteristics, water components (wave intensities, water types), leaves rustling (a few different types and intensities), branches cracking or other elements breaking due to stormy conditions, rain, thunder, etc. Likewise, birds and other wildlife had to be assigned separate, clean sounds... Our most difficult job was to remove any unwanted noise from all those elements, all those components either we recorded ourselves or gathered from sound libraries. Each sound had to be fine-tuned to the system, to everything down- and upstream of it, so that the resulting mix of components was not muddy, instead, letting all the important gameplay sounds come through.

Having all those ingredients reacting independently to the various factors, then supplementing that with asset randomization, resulted in the soundscape you hear, a soundscape that is thoroughly dynamic and hardly ever identical in technical terms.<sup>25</sup>

The principle of dynamic balance is also at work in *TW3*'s superlative musical score, created primarily by Mikolai Stroinski and Marcin Przybyłowicz with additional contributions by Polish folk punk band Percival.<sup>26</sup> Stroinski and Przybyłowicz created a series of memorable sound-tracks which accurately conveyed the identity of each major region of the open world, while providing enough local variation to keep players' ears intrigued. Velen is a war-ravaged marshland, and its ambient music track consists of mournful strings, while the countryside around the city of Novigrad, largely untouched by war, has a placid pastoral theme. The islands of Skellige, inspired by Norse mythology, have an austere, quietly heroic bardic-skaldic theme. Composer Mikolai Stroinski drew inspiration from a truly transnational array of European musical cultures, ranging from Ireland and Scotland to Bulgaria and the Balkans:

In order to nail the Slavic portion of the soundtrack I had to do some research and listen to a couple of folk bands from Poland but expand it with Balkan music as well. The pivotal point between the two styles is Bulgaria. The rest of my inspiration was folk music from Ireland and Scotland. I combined all this with everything else that resonates in my head after years of working on and listening to all kinds of music.<sup>27</sup>

*TW3*'s second major innovation was the transformation of non-interactive cut-scenes into fully interactive dialogues. Aside from the opening and closing credits, almost every cut-scene presents players with a set of conversational dialogue options. Players must choose their responses wisely, because their dialogue choices will have significant effects on individual characters as well as on the development of the overall storyline. While most of these dialogue options are not timer-based, i.e. players may take as long as they wish to respond, there are a few which require players to make decisions within six to eight seconds.

The scale and sophistication of these interactive dialogues set a new qualitative as well as quantitative standard for open world videogames. The voiced dialogue and in-game text of *TW3* are slightly than 450,000 words in length, more than double the 216,000-word dialogue and text of *Final Fantasy 12*.<sup>28</sup> On an average play-through of *TW3*, players experience approximately

twenty hours of conversational dialogue. This is three times as long as the six hours of cut-scenes featured in Square's *Final Fantasy 12* (2006), and double the nine hours featured in Hideo Kojima's *Metal Gear Solid 4* (2008).

However, *TW3*'s cut-scenes are not just longer than any previous videogame, they are also interactive. Most cut-scenes feature one or more moments when the onscreen conversation stops, and players are asked to choose from a set of dialogue options. Each choice elicits a slightly different response from the player-character, and different responses trigger different story-paths. Some of these paths converge over time, while others crystallize to form differing story outcomes. Over time, player choices have a decisive influence on the fates of numerous individual characters, as well as on the final outcome of the story. While the majority of these dialogue sequences halt the in-game clock, giving players as much time as they need to make a decision, there are a small number which are time-limited, i.e. players are given approximately five seconds to make a decision.

What makes these dialogue choices so compelling is that it is not obvious what the long-term consequences of any given decision will be. Whereas most videogames offer players simple, binary choices resulting in clear outcomes, *TW3* presents players with complex, morally ambivalent choices which generate unpredictable outcomes. What may seem to be the right choice may turn out to have the most disastrous consequences, and vice versa. This adds significant replayability to the open world, since players have an incentive to go back and make different choices to see if things could turn out better (or in some cases, worse). Thanks to these optional dialogues, *TW3*'s twenty hours of dialogue expands to approximately fifty hours of content across subsequent play-throughs.

Most remarkable of all, these dialogues maintain the highest level of aesthetic excellence throughout all fifty of these hours. In this respect, the conversational dialogues of *TW3* function very much like the interactive version of the television serial. This structural similarity is no accident, but is rooted in the fact that television serials are, very much like videogames, an art-form sometimes (though not always) capable of combining the highest level of aesthetic quality with commercial mass popularity.<sup>29</sup> The table below lists some of these landmark television serials, along with their creators and approximate running time. Note that while most of these series are fiction-based, *City of Men* draws heavily from the documentary as a form, while *The Truth Will Prevail* is a documentary serial:

**Table 1.** Leading Broadcast Television Serials, 1967-2014.

Year	Nation	Title	Running time	Creator/Director
1967	UK	<i>The Prisoner</i>	18 episodes (13 hours and 30 minutes)	Patrick McGoohan
1986	China	<i>Journey to the West</i>	25 episodes (21 hours and 24 minutes)	Wang Feng, Ruan Ruolin and Yang Jie (original novel by Wu Cheng'en)
1986-1987	India	<i>Malgudi Days</i>	54 episodes (19 hours and 44 minutes)	Shankar Nag (original stories by R.K. Narayan)

1989	Poland	<i>The Decalogue</i>	10 episodes (10 hours)	Krzysztof Kiesłowski
1995-1996	Japan	<i>Neon Genesis: Evangelion</i>	26 episodes (13 hours)	Hideaki Anno
2002-2005	Brazil	<i>City of Men</i>	19 episodes (9 hours and 30 minutes)	Kátia Lund and Fernando Meirelles
2003-2004	South Korea	<i>Dae Jang Geum [Jewel in the Palace]</i>	54 episodes (54 hours)	Byung-hoon Lee
2003-2008	US	<i>The Wire</i>	60 episodes (60 hours)	David Simon
2004	Japan	<i>Paranoia Agent</i>	13 episodes (13 hours)	Satoshi Kon
2012-2013	Tanzania	<i>Secrets of the Jug [Siri ya Mtungi]</i>	26 episodes (13 hours)	Jordan Riber and Karabani
2012-2014	India	<i>The Truth Shall Prevail</i>	25 episodes (25 hours)	Aamir Khan and Kiran Rao

As a Polish studio, CD Projekt Red was able to build on the legacy of Kiesłowski's *The Decalogue* in two ways. First, where *The Decalogue* successfully refunctioned forms as diverse as the telenovela, the murder mystery, the crime thriller, the young adult love story, the family origin melodrama, and the adult romance melodrama into a single unified narrative, *TW3* remixes a wide range of formulaic role-playing videogame genre elements (cf. medieval combat, occult lore, the ghost story, the fetch quest) into its immersive open world.

Second, where *The Decalogue* integrated Zbigniew Preisner's scintillating musical score, the visual innovations of Kiesłowski's close-ups, exquisite visual framing, and semi-circular pans, and a taut script co-written by Kiesłowski and Krzysztof Piesiewicz into a breathtaking critique of Eastern European society under the final phase of Russo-imperial nomenklatura rule, *TW3* similarly integrated the categories of voice acting, motion capture, ambient and diegetic music, animation, writing and quest design invented by the larger field of role-playing videogames into a devastating critique of post-1998 European euroliberalism, a.k.a. the eurozone's project of monetary unification through austerity.<sup>30</sup>

In essence, *TW3* critiques contemporary euroliberalism as the continuation of past inter-European colonialisms and neocolonialisms. We will explore the function of geopolitical narratives and representations of Eastern European and Eurasian history in *TW3* more fully in the next chapter, but for the remainder of this chapter, it is worth examining how CD Projekt Red successfully achieved the integration of so many different aesthetic categories into a playable open world.

To meet this challenge, the studio created one of the largest writing and quest design teams ever assembled for a single videogame. Lead writer Marcin Blacha and lead English writer Borys Pugacz-Muraszkiewicz, who both made key contributions to *TW1* and *TW2*, led a team of seven writers and twenty-three quest designers on *TW3*. Each of these writers worked closely with a specific quest designer to create and then refine individual quests.<sup>31</sup> These writers and

quest designers also worked closely with British voice acting firm Side and a host of extraordinarily talented voice actors, in order to ensure that every single conversational dialogue accompanying these quests remained true to the personalities and motivations of each in-game character. The main performers, staffers and writers are listed below:

**Table 2.** Creative staff responsible for *TW3*'s dialogue sequences.

Category	Firm	Key Personnel
Voice acting <sup>32</sup>	Side (UK) <sup>33</sup>	Voice directors include Kate Saxon (lead performance director) and Damien Goodwin. The main voice actors include Doug Cockle as Geralt of Rivia, Denise Gough as voice of Yennefer, Jo Wyatt as voice of Ciri, Jaimi Barbakoff as Triss Merigold, Katie McGuinness as Keira Metz, William Roberts as Vesemir, James Clyde as Baron Phillip Strenger, John Schwab as Dandelion, Alexander Morton as Zoltan Chivay, Richard Hawley as Sigismund Dijkstra, Sarah Greene as Cerys an Craite, Allen Leech as Hjalmar an Craite, Gary Lilburn as Crach an Craite, Charles Dance as Emperor Emhyr var Emreis, Emma Hiddleston as Priscilla, Patrick Drury as Ermion, Tom Clarke Hill as Eskel, Christian Contreras as Lambert, and Michael Maloney as Avallac'h
Motion capture	Prime Fury (Poland) <sup>34</sup>	Slawomir Kurek, Maciej Kwiatkowski and Wojciech Roguski
Animation	CD Projekt Red (Poland)	Sebastian Kalemba (character animator and lead animator), Anna Plocica, Daniel Schmid and Piotr Tomsinski (technical director of animation)
Writers	CD Projekt Red (Poland)	Marcin Blacha (co-lead writer), Arkadiusz Borowik, Aleksandra Motyka, Bartosz Ochman, Borys Pugacz-Muraszkiewicz (co-lead writer), Karolina Stachyra and Jakub Szamałek
Quest designers	CD Projekt Red (Poland)	Main quest designers included Joanna Radomska, Jakub Rokosz, Paweł Sasko, Anish Antony, Karolina Kuzia, Dennis Zoetebier, Danisz Markiewicz, Nikolas Kolm, Patrick K. Mills, Grzegorz Sadziński, Sarah Grümmer, Stephen Rhodes, Philipp Weber, Antoni Strzałkowski, Błażej Augustynek and Maciej Duda. Additional quest designers included Michał Dobrowolski, Krzysztof Justyński, Hubert Kubit, Aleksander Lebedowicz, Maciej Mach, Małgorzata Napiontek and Maciej Szcześnik

The writers and quest designers also contributed significantly to the evolution of CD Projekt Red's in-house animation software tools. These tools were repeatedly fine-tuned in order to meet the specific needs of *TW3*'s interactive dialogues, resulting in characters who acted, spoke and gestured with unprecedented visual realism. Technical director of animation Piotr Tomsinski describes how the team employed the speed and efficiency of automated design tools to enhance rather than detract from overall character development:

The 'algorithm' or 'generator' as we call it, was used only as a solid base for further development of the scene. It was a shortcut, a tool, but never a goal. More of a production-related

thing. It created a rough first pass through a scene, which was always tweaked and adjusted by hand – in all 1463 dialogues. In many, the algorithm wasn't used at all, as they demanded [a] custom approach from the very beginning.

Every cinematic dialogue was approached with the same care, attention and goal – to create the most compelling and emotional scene for [a] given quest and story. Only this way, the characters could ring true and players would want to invest in them, to understand them, to help or condemn them. When they act like humans, not voiceover-delivery machines. Achieving this is a deliberate, careful process. Procedural doesn't get you this. A designer with empathy does. Because you have to put your heart into something to move someone else's.<sup>35</sup>

*TW3*'s third major innovation was the abolition of the fetch quest by the story quest. Fetch quests are simple, repetitive tasks which do not significantly alter the state of the game-world or affect the storyline, but do generate useful in-game resources for players. Because fetch quests are simple to design and easy to implement, numerous role-playing videogames have used them to fill up the empty spaces of their open worlds, forcing players to engage in long periods of digital drudgery.

*TW3* spares players this fate by integrating the resource-gathering aspect of fetch quests directly into story quests. This seemingly minor change necessitated a massive revolution in the design of the open world, simply because player access to resources can no longer be hived off in the form of the fetch quest, but must now be distributed across a wide variety of potential player actions. Put more concretely, every story quest must now fulfill an economic or resource-gathering function as well as a narrative function. The first step *TW3* took towards solving this problem was to replace the standard fetch quest with recurrent player investments in time and in space. The main form of the first involves defeating roving bands of wild animals, or collecting herbs in the fields and forests (activities involving time). The main form of the second is reaching certain locations and completing certain quests (activities involving space).

This redistribution of economic functionality generated, in turn, some unique narrative challenges for *TW3*'s lead director Konrad Tomaszewicz and secondary co-directors Mateusz Kanik and Sebastian Stępień.<sup>36</sup> The three co-directors had to maintain the narrative cohesion of a vast game-world characterized by significant player decision-making, a script with almost half a million words, and story quests which were also resource-gathering quests. If players acquired too few resources from their travels and their quests, they would be frustrated, but if players acquired too many resources too quickly, they would experience boredom.

The strategy the three co-directors employed to solve this problem was as simple as it was audacious. *TW3*'s story quests are not the side feature of a story which happens elsewhere. Rather, these quests *are* its story. The fetch quest is abolished by erasing the distinction between the main quest and the side quest: every single quest is now a story quest in its own right. This presented an additional challenge to CD Projekt Red's writers and quest designers, in the sense that even the smallest quest now had to have a unique story, a memorable setting, and characters with credible motivations.

The writers and designers met this challenge by design quests to be as variegated and diverse as the open world itself. While some story quests are as simple as hunting down a specific monster, others are complicated miniature adventures in their own right (e.g. the quest called “The Bloody Baron” contains more narrative content in its own right than many entire fantasy videogames). Still other quests borrow from the literary form of the detective narrative,

by requiring players to search for clues to past events, to evaluate forensic evidence using Geralt's superhuman witcher senses, and to interview bystanders who may or may not be reliable witnesses. Finally, quests such as "Broken Flowers" test players not just for their battlefield prowess, but also for their critical thinking skills and their capacity for empathy.

*TW3*'s quests are organized into four main types. First, there are main quests required to advance the main story. While these main quests are broadly linear in nature, the designers gave players a great deal of freedom to complete many of them in the order the player wishes (e.g. conversational dialogues automatically adjust to fit the order that the player chooses to complete quests). Second, there are side quests which do not advance the main story, but which nonetheless exert a significant influence on the outcome of the story and the destiny of major characters and communities. Third, there are witcher contracts which do not affect the main story but enable players to earn money and acquire useful items. Fourth, there are treasure hunts which do not influence the story or affect character outcomes, but which allow players to find and craft uniquely powerful items. All in all, there are 39 main quests and 147 additional quests (side-quests, contracts, and treasure hunts) in the original game.

There is also a fifth category of routine activities and side-events, the most prominent of which are gathering herbs for potions and oils, and mini-games involving horse racing and boxing which yield prizes and other rewards. There is also a two-player competitive card game called *Gwent*, which Geralt can play with in-game vendors and various non-player characters.

In a stroke of genius, CD Projekt Red did not treat *Gwent* as just another disposable mini-game. Instead, the studio devoted significant time and resources into crafting a fully-featured, tactically balanced and strategically complex digital card game, albeit one which plays out entirely within *TW3*. This functionality was a welcome surprise to that significant fraction of the videogame audience who enjoy the popular pastime of digital card games. Rather than charging fans extra for additional pieces of downloadable content, CD Projekt Red essentially delivered two full-fledged and fully-featured videogames to fans for the price of a single one.<sup>37</sup> The response of fans was so positive, CD Projekt Red to release an upgraded version of *Gwent* as a separate free-to-play game with optional in-game purchases, with a targeted release date of late 2016.<sup>38</sup>

It should be emphasized that all of these mini-games, side quests, treasure hunts and card games are completely optional. Instead of forcing players to complete quests and activities in the order the designers intended, players are encouraged to make their own decisions, specialize in the activities they find most rewarding, and to follow their own path. Where other role-playing videogames offered players the prospect of a ride through someone else's adventure, *TW3* encourages players to create their own personal adventure.

The transformation of digital space into digital place, the conversion of cut-scenes into interactive dialogues, and the democratization of quest design all put enormous pressure on *TW3*'s game-play. Simply, the ensemble of short-term player actions during combat, the medium-term player choices during the crafting, acquisition and sale of goods and items, and the long-term player choices involved in developing character skills and completing quests had to be both narratively meaningful as well as enjoyable to play during every step of the player's journey through the game.

CD Projekt Red's solution to this problem was a strategy we will call eco-scripting. Eco-scripting means that every single player action is structured as a dynamic balance of short-term

player tactics and long-term player strategies. Just as each location in the open world is governed by a dynamic ecology of humans, monsters, communities and polities, so too does eco-scripting endow every player action with an ecological density of scripted challenges and opportunities, dangers and rewards.

To understand how eco-scripting functions, it is helpful to revisit the history of the role-playing videogame as a form. One of the perennial challenges facing designers of role-playing videogames is the tension between long-term player strategy and short-term player tactics, or more precisely, between the freedom of long-term player customization and the freedom of real-time player performance.

During the 1990s, leading fantasy role-playing videogame franchises such as *Final Fantasy* solved this problem via menu-based interfaces. These enabled players to customize the skills and equipment of their characters, while giving them precise control over their in-game actions. However, these menu-based systems also disrupted the player's sense of real-time immersion. Combat had to be organized into alternating turns (a technique borrowed from the world of pre-digital board games), and the need to constantly reissue the same menu commands generated player tedium. Conversely, the combat-based interfaces of occult thriller franchises such as *Devil May Cry* and science fiction videogame franchises such as *Mass Effect* succeeded in giving players a powerful sense of real-time immersion, but did not always provide an adequate framework for long-term player strategy.

The purpose of eco-scripting is to combine the best of both worlds, i.e. to fuse the extreme precision and customization of menu-based interfaces with the real-time immediacy and flexibility of combat interfaces. To do this, CD Projekt Red classified all possible player actions into two general categories. These categories were time-dependent activities such as combat, travel, exploration, and dialogue choices, and time-independent activities such as player-character skill and ability customization, item crafting and repair, the purchase and sale of items, and combat preparation.

Next, each time-dependent player action was balanced by an equivalent time-independent player action. This breaks the general rule that videogames are most successful when they focus on a specialized form of game-play, e.g. FromSoftware's well-received *Bloodborne's* (2015) operated almost entirely on time-dependent player actions, whereas Square Enix's *Final Fantasy 12* (2006) features a gambit system which operated primarily on time-independent player decisions. By contrast, the singular advantage of balancing time-dependent and time-independent actions is a dramatic increase in player freedom. Players are no longer limited to a purely action-based or strategy-based playing style, but can mix and match as many tactics and strategies as they wish.

CD Projekt Red rigorously applied the principles of eco-scripting to every aspect of player decision-making. For example, consider the category of player combat. In many role-playing videogames, combat is essentially a balance-sheet exercise in combining the most powerful attacks with the most effective defenses. By contrast, player movement and timing in *TW3* are just as important in combat encounters as equipment and prior preparation (this latter includes knowledge of opponent strengths and weaknesses, as well as the player's toolkit of oils and potions).

In like manner, every monster or opponent in *TW3* has a mixture of time-dependent abilities such as attack speed, agility and movement pattern, and time-independent abilities such

as magical immunities, and character level.<sup>39</sup> There is a similar logic at work in the player-character attribute system, which balances time-independent abilities such as health regeneration and defensive bonuses with time-dependent abilities such as swordplay or spell bonuses.<sup>40</sup> The same principle is at work in the mechanisms governing the passage of in-game time. Players can meditate for as long as they wish in order to select the time of day and the type of weather most conducive to their quest, without any consequences on quest completion or any other aspect of game-play. However, there are strict time limits on the duration of spells, the efficacy of oils, and on magic potions, e.g. if players imbibe too many potions at once, Geralt's health will suffer.<sup>41</sup>

Eco-scripting played an equally decisive role in shaping *TW3*'s system of character progression. Players level up Geralt's attributes through exploration and by completing quests, rather than by defeating opponents on the battlefield. Conversely, the only other playable character in *TW3*, Ciri, has no level progression whatsoever. At first glance this might seem to be an unnecessary restriction on player freedom. In reality, it is just the opposite. By tying level progression to exploration and quest completion rather than repetitive killing, and by providing vast numbers of quests and locations to explore, *TW3* emancipates players from the necessity of “grinding”, a tactic endemic to role-playing videogames wherein players increase their skills and obtain needed supplies via repetitive battles against enemies in the same locations.<sup>42</sup> In effect, *TW3* abolished the long-term drudgery of grinding as well as the short-term drudgery of the fetch quest.

Eco-scripting was also largely responsible for the design of *TW3*'s crafting system. In the past, many role-playing videogames suffered from crafting systems which were either excessively complex or else overly simplistic. *TW3* solved this problem by creating a crafting system which is simple to use but capable of almost infinite complexity. Every single piece of equipment usable by the player (e.g. weapons, pieces of armor, tools and items) has its own master diagram. Players can either purchase these diagrams from a non-player character or merchant, or else acquire it as loot while exploring the open world. Once they have this diagram, the next step is to collect the necessary components for its manufacture. Less powerful items require inexpensive components, while more powerful items require rare and expensive components. Lastly, a skilled craftsman must be located who has the requisite skill level to produce the item in question – the more powerful the item, the greater the skill level required.

In essence, crafting is formed by the conjunction of three instances of eco-scripting, each designed to function as part of a larger whole. This tripartite system not only provides credible incentives for players to complete side quests, treasure hunts and other optional activities, it also generates significant story-telling in its own right. Some of *TW3*'s best-written text narratives are the documentary records or archeological traces of past treasure hunts gone awry, while the side quests involving craftsmen are some of the best ever written for a role-playing videogame. In the “Swords and Dumplings” side quest, for example, Geralt aids a reluctant elf named Hattori to reclaim his status as a master swordsmith. In the “Master Armorers” side quest, Geralt helps Yoana to become a master armorsmith, while battling medieval-era misogyny (Yoana is a woman in a male-dominated field) and some of the most difficult opponents in the game.

Perhaps the single greatest design challenge CD Projekt Red faced in the practical implementation of this crafting system was coordinating *TW3*'s in-game price system. This was not a trivial problem, since there are literally thousands of separate weapons, pieces of armor, tools, treasure items and crafting supplies in *TW3*'s open world, and each of these items

interacted with all others in complex ways.<sup>43</sup> To preserve the overall balance between player risk and quest rewards, CD Projekt Red's senior game-play designer Christopher Steinke wrote a program which calculates in-game prices dynamically:

Instead of setting a static value, prices were calculated at run-time, making every trade unique, a living economy where each item had a different value based on the type of merchant the player was interacting with, and the state of the world around them. This rewarded most ambitious players who might travel to distant lands to trade for different items at favorable rates.<sup>44</sup>

These dynamic prices governed, in turn, everything from the price of the loot dropped by defeated enemies to the cost of crafting specific items. This price mechanism is not a mechanism of player accumulation, but a means of enhancing the experience of digital place, increasing the impact of interactive dialogues, and adding to the narrative appeal of story quests.

Perhaps the single most counterintuitive effect of CD Projekt Red's strategy of eco-scripting was its reciprocal effect on *TW3*'s open world. By transforming all player actions into a set of dynamic choices rather than a selection of predetermined conditions, eco-scripting transformed the foundational premise of the open world as a form, namely its mandate to maximize player choice. This mandate makes sense only in the context of that which cannot be chosen, namely the field of necessity against which players must struggle. To paraphrase Sartre, no matter how free our individual choices may seem to be, we are never free to *not* make a choice. The tens of thousands of choices players are called upon to make during any given play-through of *TW3* recoil into the largest conceivable antipode of all choice, namely that closure otherwise called history. In the next chapter, we will explore how CD Projekt Red's mandate of maximizing player choice while also maximizing the meaningfulness of those choices drove *TW3*'s open world towards the thinking of transnational history.

1. We will define the open world videogame as a work of interactive media which allows players to explore large-scale indoor and outdoor environments in a play-style and at a pace primarily of the players' own choosing. Contemporary large-budget open world videogames typically feature near-cinematic playable environments, realistic weather effects, day-night cycles, realistic sound and musical design, sophisticated voice acting and facial animation, and realistic in-game physics and character animation. While the first true open world videogame, Yu Suzuki's *Shenmue*, was released by Sega in 1999, open worlds did not become a dominant genre of the transnational media market until Rockstar's *Grand Theft Auto 5* (2013), which sold 53 million copies between September 2013 and February 2015. Take-Two Interactive. *Take-Two 2015 Financial Report*. <http://ir.take2games.com/phoenix.zhtml?c=86428&p=irol-reportsannual>. (2).
2. This sales data is from CD Projekt's March 16, 2016 press release: [https://www.cdprojekt.com/en/Press\\_Room/Aktualnosci\\_news\\_id,2623](https://www.cdprojekt.com/en/Press_Room/Aktualnosci_news_id,2623). Awards data is compiled at: <http://gotypicks.blogspot.com/2015/09/2015-game-of-year.html>.
3. This sales data is from VGChartz. <http://www.vgchartz.com/gamedb/?name=dead+island>.
4. For a fuller analysis of the imperial legacies of American, British, Japanese and Western European imperialism and colonialism in the fantasy role-playing videogame genre, see Chapter 5 of my dissertation: Dennis Redmond (2012). *Videogame Culture as Transnational Media: One Neoliberalism, Many Resistances*. Urbana-Champaign: University of Illinois. <http://hdl.handle.net/2142/42362>.
5. This definition of mid-range personal computers is based on trade publication PC Gamer's suggested builds for gaming PCs in mid-2015, available here: <http://www.pcgamer.com/best-gaming-pc/>.
6. CD Projekt Red released versions of *TW3* for the XboxOne, PS4 and personal computer. PC Gamer has provided this list of the minimum system requirements to run *TW3* on personal computers: <http://www.pcgamer.com/the-witcher-3-system-requirements-announced/>.
7. Square Enix 2007 Annual Report. [http://www.hd.square-enix.com/eng/pdf/ar\\_20070831\\_01.pdf](http://www.hd.square-enix.com/eng/pdf/ar_20070831_01.pdf).
8. For a fuller description of *FF12*'s contributions to the role-playing fantasy videogame, see Chapter 6 of my dissertation, available online in PDF format: Dennis Redmond (2012). *Videogame Culture as Transnational Media: One Neoliberalism, Many Resistances*. Urbana-Champaign: University of Illinois. <http://hdl.handle.net/2142/42362>.
9. Playstation 2 sales data is from Sony Computer Entertainment: [https://web.archive.org/web/20131101120621/www.scei.co.jp/corporate/data/bizdataps2\\_sale\\_e.html](https://web.archive.org/web/20131101120621/www.scei.co.jp/corporate/data/bizdataps2_sale_e.html). Sales data for Final Fantasy 12 is available here: <http://www.vgchartz.com/gamedb/?name=final+fantasy+xII&publisher=&platform=&genre=&minSales=0&results=200>.
10. We use the term "informal copying" because the sale of unlicensed videogames was not illegal under Polish law during most of the 1990s. For a useful account of CD Projekt's early history, see: Robert Purchase (2013). "Seeing Red: The Story of CD Projekt." November 6, 2013, *Eurogamer*. <http://www.eurogamer.net/articles/2013-11-06-seeing-red-the-story-of-cd-projekt>.
11. For additional insight into the origins of CD Projekt, see: Russ Pitts (2014). "How the team behind The Witcher conquered Poland." July 16, 2014, *Polygon*. <http://www.polygon.com/features/2014/7/16/5884227/cd-projekt-the-witcher-3>.

12. The most famous example of this paradox is the inability of China's government, despite the best-funded agenda of censorship in the world, to do more than block a minute fraction of China's total internet traffic. For further background on this issue, see GreatFire.org: <https://en.greatfire.org/>.
13. Note that the distribution subsidiary of CD Projekt is named cdp.pl: "In 1996 CDP.pl (then known as CD Projekt) became the first Polish company to release games with Polish manuals and in localized Polish boxes. In 1999 it went a step further, releasing the Polish edition of the popular game *Baldur's Gate* with voice talent contributed by acclaimed actors, including Piotr Fronczewski and Wiktor Zborowski. The game sold over 100 thousand copies – a new company record."  
[https://www.cdprojekt.com/en/Capital\\_group/Our\\_history](https://www.cdprojekt.com/en/Capital_group/Our_history).
14. The *Witcher* literary series consists of six fantasy novels and one collection of short stories written between 1990 and 1999, and one novel and two short stories published in 2012 and 2013. Sapkowski's biography and a description of his major works are available here: <http://culture.pl/en/artist/andrzej-sapkowski>.
15. The dates of publication for the German translations of Sapkowski's *Witcher* novels begin in 2007: [http://www.amazon.de/Andrzej-Sapkowski/e/B001ICAMAW/ref=dp\\_byline\\_cont\\_book\\_1](http://www.amazon.de/Andrzej-Sapkowski/e/B001ICAMAW/ref=dp_byline_cont_book_1).
16. Sapkowski played no role in the production or development of the videogames. Robert Purchase (2012). "Ever wondered what the author of The Witcher books thinks about the games?". November 11, 2012, *Eurogamer*. <http://www.eurogamer.net/articles/2012-11-06-ever-wondered-what-the-author-of-the-witcher-books-thinks-about-the-games>.
17. *They Hunger* can be downloaded here: <http://www.moddb.com/downloads/they-hunger-1-2-and-3>.
18. The various iterations of the *Little Big Planet* franchise have sold 16.35 million copies between 2008 and 2015. VGChartz.com. <http://www.vgchartz.com/gamedb/?name=littlebigplanet>.
19. Despite its change of ownership, Mojang continues to function more like a community-maximizing museum or non-profit platform than a profit-maximizing monopoly. See my own essay: "Minecraft: The Videogame Commons Remakes The Transnational Studio." In: *Understanding Minecraft: Essays on Play, Community and Possibilities*. Edited by Nathan Garrelts. Jefferson: McFarland, 2014.
20. The CD Projekt group describes its philosophy in its 2016-2021 group strategy statement as follows:
- “What guides our business activities:
- The Company is founded upon the principle of fair play. We treat our employees, our gamers, and our business partners fairly in everything we do.
  - Our team is our greatest asset. We are always on the lookout for new solutions that can enhance our teamwork.
  - We employ people who are passionate about videogames and about delivering top-quality products and services.
  - We stand for tolerance. We combat all forms of racism, homophobia and xenophobia, as we believe tolerance is the foundation of creativity and innovation.
  - We forge strong, direct contacts with our player base. We believe that only ongoing, open and honest customer relations matter.
- How we perceive videogames:

- We believe that videogames are a form of art, rather than just an entertainment product. We want to leave a mark on the global gaming community by delivering outstanding, thoughtful digital experiences.
  - We create games we would like to play ourselves: complex, nonlinear and focused on audiences appreciating deep storylines and genuine emotions.
  - We have long ago decided to specialize in the role-playing game (RPG) genre. RPGs are among the most challenging videogame projects from the creative point of view and for many years we have been adding to our pool of knowledge and experience. Each new release gives us more ideas for future projects.
  - We believe that hard work, attention to detail, and genuine affection towards the stories we tell resonates in gamers, who, upon finishing our games, feel that they've spent their money well.”
- On page three, the statement continues:  
 “How we want to develop our business:
- We are convinced that one can remain commercially successful without sacrificing the creative vision to business calculation.
  - Quality is the foundation of our long-term strategy and development plans. We do not seek easy profit and are not interested in taking shortcuts. We focus on ambitious plans with the potential to achieve global impact, and we make no compromises in pursuing them.
  - We love breaking the mold and proving that we can achieve what many would consider unachievable. We always try to set goals which seem just out of reach.
  - In our attempts to achieve breakthroughs and innovation, we are not afraid to enter uncharted territory, undertake risks and make mistakes. Creative curiosity calls for courage if one is to go a step further than the rest of the pack.”

CD Projekt (2016). <https://www.cdprojekt.com/resources/document/strategy-en-v2.pdf>.

21. For example, a planned policy change involving regional pricing in early 2014 was heavily criticized by the community. CD Projekt not only rescinded the new policy, but issued a public apology to its users. See: [http://www.gog.com/news/getting\\_back\\_to\\_our\\_roots](http://www.gog.com/news/getting_back_to_our_roots).

22. The most important of these patches was patch 1.07, released in mid-July 2015. This patch set the weight of crafting items to zero, and also gave players a chest in their hideouts which could hold infinite amounts of goods (previously, carry weight limits forced players to sell rare crafting items and equipment, an unnecessary restriction on player freedom). Books were marked as read or unread, and given a separate menu tab. The update also gave players an optional movement style for Geralt, allowing players to change directions more quickly. See: <http://en.cdprojektred.com/news/patch-1-07-changelog/>.

23. The exceptions would be purely audio-based rhythm or touch-based interactive media experiences, organized on non-visual principles. This is a fascinating branch of interactive media which deserves careful study in its own right. For a list of audio-based games, see: <https://www.audiogames.net/list-games/>.

24. Dom Reseigh-Lincoln. “*The Witcher 3*’s world building and quest design explained by CD Projekt RED.” GamesRadar.com. June 28, 2015. <http://www.gamesradar.com/witcher-3s-world-building-and-quest-design-explained-cd-projekt-red-2/>. In a video interview with a fan, Monnier noted that visual elements as small as patches of grass were hand-crafted: “We spent a lot of time in where we put... each bit of grass is hand-placed. Each tree, each everything, there’s so much attention that goes into it so that it makes sense. We have this system actually that will simulate water falling, like rain, and it will tell you where the rain would gather, so that you know that a particular type of grass would grow

there.” Princess Castle (Youtube channel). “The Witcher 3: Wild Hunt - Intervista a Damien Monnier, Senior Gameplay Designer [ENG].” Youtube.com. April 13, 2015. Video clip from 4:31 to 4:55, [https://www.youtube.com/watch?v=E0o\\_qoTVFOW](https://www.youtube.com/watch?v=E0o_qoTVFOW). Clip lightly edited for clarity.

25. Fred Pearson (personal blog). “Interview with the CD Projekt Red Audio Team on The Witcher III: The Wild Hunt.” February 17, 2016. <https://fredpearson.wordpress.com/2016/02/17/interview-with-the-cd-projekt-red-audio-team-on-the-witcher-iii-the-wild-hunt/>.

26. The full playlist of *TW3* is available here: [https://www.youtube.com/playlist?list=PLgJZQv8L8x5nl1J0gvkIc5EKIaL\\_eaF0p](https://www.youtube.com/playlist?list=PLgJZQv8L8x5nl1J0gvkIc5EKIaL_eaF0p).

27. Cameron Koch. “Interview: 'The Witcher 3' Composer Mikolai Stroinski Talks About How Music Helps Bring The Game To Life”. Tech Times. May 18, 2015. <http://www.techtimes.com/articles/53814/20150518/the-witcher-3-wild-hunt-composer-mikolai-stroinski.htm>.

28. The numbers for *Final Fantasy 12* were computed by electronic word counts of the transcripts of all spoken dialogue, plus all available in-game textual dialogue. For the original methodology, see Chapter 5, page 207 of my 2012 dissertation, *Videogame Culture as Transnational Media*, available from the University of Illinois in PDF format: <http://hdl.handle.net/2142/42362>. The numbers for *TW3* are from Side, the British voice acting firm which handled voice production for the videogame. See: Zack Stein (2015). “This Is How Big the Script Was for *The Witcher 3: Wild Hunt*.” May 29, 2015, IGN. <http://www.ign.com/articles/2015/05/29/this-is-how-big-the-script-was-for-the-witcher-3-wild-hunt>. Note that the two pieces of downloadable content for *The Witcher 3*, *Heart of Stone* (2016) and *Blood and Wine* (2016), feature 6,000 and 14,000 lines of dialogue respectively, or an additional 50,000-75,000 words. Matt Purslow (2016). “We know you aren't stupid' – a quest design masterclass from CD Projekt Red.” <http://www.pcgamesn.com/the-witcher-3-wild-hunt/the-witcher-quest-design-cd-projekt-masterclass>. PC Games N.

29. Other examples include digital popular music and the comic strip, genres where the barriers to entry are low, and where digital networks of production, distribution and reception give artists the freedom to innovate outside of the control of corporate media monopolies. As a general rule of thumb, the greater the capacity of videogame artists to access transnational audiences, the more creativity they enjoy and the more innovative their art-works have become.

30. Euroliberalism is best defined as the project of transnational financial speculation and national austerity exemplified by the eurozone. As of 2016, the eurozone is a European monetary union without a corresponding European fiscal union. The currency union thus functions like a deflationary gold standard, wherein weaker economies such as those of Greece and Spain are forced to compete head-on against Germany and Finland. Since these weaker economies can no longer rely on currency devaluation or run government deficits to grow their economies, they are trapped in a permanent recession. By contrast, the currency union of the fifty states which comprise the United States of America works precisely because the Federal government taxes richer states such as Massachusetts and California to subsidize less wealthy states such as Mississippi and Alabama.

31. “There are two teams who work closely together to develop quests for *The Witcher 3*: writers and quest designers. First, a writer prepares an overview of what happens in the quest. Next, the document is handed over to a quest designer, who comes up with a more detailed description of what the player will actually do. From there, the two work in tandem to finalize everything.” Patrick Klepek. “The

Personal Story Behind The Witcher 3's Bloody Baron Quest.” Kotaku.com. October 12, 2015. <http://kotaku.com/the-story-behind-the-witcher-3s-bloody-baron-quest-1736090893>.

32. CD Projekt Red hired a number of other firms to ensure that *TW3* was released with seven voice over languages and fourteen subtitled languages. The voice over languages in *TW3*'s original 2015 release include English, French, German, Japanese, Polish, Portuguese and Russian, while the original subtitled languages include Arabic, Czech, Chinese, English, French, German, Hungarian, Italian, Japanese, Korean, Polish, Portuguese, Russian and Spanish.

33. In a press release describing its role in the production of *TW3*, Side notes that the videogame contains over 950 characters with voice roles. Side.com (2016). <http://side.com/projects/the-witcher-3-wild-hunt/>.

34. Prime Fury (Facebook site). <https://www.facebook.com/PrimeFury>.

35. Wes Fenlon (2016). “Most of The Witcher 3's dialogue scenes were animated by an algorithm.” [http://www.pcgamer.com/most-of-the-witcher-3s-dialogue-scenes-was-animated-by-an-algorithm/?utm\\_content=buffer039bb&utm\\_medium=social&utm\\_source=twitter&utm\\_campaign=buffer-pcgamer](http://www.pcgamer.com/most-of-the-witcher-3s-dialogue-scenes-was-animated-by-an-algorithm/?utm_content=buffer039bb&utm_medium=social&utm_source=twitter&utm_campaign=buffer-pcgamer). *PC Gamer*. March 18, 2016.

36. Before assuming their directorial duties of *TW3*, all three had significant prior experience working on *The Witcher* and *The Witcher 2*, e.g. Tomaszkiwicz had previously worked as a lead quest designer, Stępień worked as a lead story and dialogue designer, and Kanik worked as a lead gameplay designer. Their deep engagement with the mechanics of crafting quests, stories and interactive dialogues is what enabled them to successfully coordinate the efforts of thirty writers and quest designers on *TW3*.

37. This is a feat matched in recent videogame history only by Bethesda's *Fallout 4*, which allowed players to role-play as either the husband or the wife of a pre-war family. These two protagonists were given separate conversational dialogues by two of the finest voice actors in the contemporary videogame industry, Brian T. Delaney and Courtenay Taylor – the equivalent of delivering two single-player experiences to fans instead of just one.

38. Additional information on Gwent is available here: <https://www.playgwent.com/en/faq>.

39. In the default setting of the game, monster levels remain fixed in order to reward players who invest significant amounts of time in leveling up their player-character. While exceptionally skilled players are free to take on even the most difficult quests, the majority of players are best served by seeking quests which are within two or three levels of their player-character's current level. CD Projekt Red provided an optional setting to turn monster levels from fixed to scalable values, boosting the difficulty of enemy encounters.

40. Player-character abilities can be upgraded through a limited number of mutagens (these can be activated or deactivated between combat encounters), and by a skill tree of unlockable abilities. These mutagens are obtained by defeating and looting rare monsters, while skills are unlocked by leveling up the player-character (i.e. completing quests) and by meditating at Places of Power scattered throughout the game-world (each of these Places and every level increase yields a one-time increase of one ability point). Since mutagens can be activated and deactivates as the player sees fit, and since skill trees can be also be reset via a custom potion (after ingesting the potion, players retain their overall stockpile of ability points and can then reuse them to build a completely different skill tree), players have

extraordinarily wide latitude to customize their playing style and character attributes.

41. Implementing this balance required the creation of a specialized visual user interface which was both respectful of the themes of Sapkowski's world, while also being transparent and accessible to players. This required the efforts of a five-person team consisting of Bartosz Bigaj, Fernando Forero, Yaroslav Getsevich, Vladimir Vilimovsky and Dan Marian Voinescu. An online archive of this visual interface is available on Fernando Forero's website: <http://fernandoforeroart.com/the-witcher-3-the-ui-visual-art>.

42. This emancipation through preclusion extends to otherwise puzzling game-play features such as mandatory wear and tear on Geralt's weapons and armor. This wear and tear reduces the power of Geralt's attacks and defenses, compelling players to have their equipment regularly repaired by expert craftspersons. What may seem to be an arbitrary constraint on players is a subtle but effective tax on excess violence, since it raises the cost of continuous combat, while rewarding players for interacting with merchants and craftspersons.

43. Many of these items are listed online: <http://gwentcards.com/armor/>

44. Matthew Steinke (2015). "Inside *The Witcher 3*'s Crafting-Based Economy". (GDC Youtube channel). September 9, 2015 (runtime 23:38 to 24:06). <https://www.youtube.com/watch?v=SdYSRkXqhyk>.