

# Inevitable or Exploitative? A Case Study of Consumers' Divergent Attitudes toward Video Game Crunch

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## **Abstract**

*As with many media industries, poor labor practices such as crunch—excessive, often unpaid overtime—are common within video game production. Researchers have addressed how industry structures normalize crunch, but game consumers' integration in this process is less understood. This case study of comments (n = 1,080) on articles about crunch develops an overall perspective on consumer attitudes by coding whether comments support or critique crunch and then evaluating the comments' main ideas. More comments supported crunch than critiqued it, often treating it as inevitable, justifying paid/short-term crunch, or comparing game development crunch to commenters' experiences. Conversely, critical comments considered crunch's negative consequences, blamed its persistence on executives, and advocated for better work practices across industries. While this piece focuses on games, the conclusions potentially speak across media industries by addressing the pervasive nature of “Do What You Love” ideologies and asking: Do consumers care about the conditions under which media is produced?*

**Keywords:** video game industry, media industry studies, labor practices, crunch, consumer-producer relationship, inductive thematic analysis

As with many media industries, poor labor practices such as crunch—excessive, often unpaid overtime—are common within video game production. Researchers have addressed how industry structures, such as games’ high-risk nature, companies’ use of non-disclosure agreements (NDAs), and overall cultures of secrecy, can normalize these practices and inhibit solutions.<sup>1</sup> Gameworkers can also contribute, as they learn to accept crunch as “inevitable.”<sup>2</sup> Less understood, however, is the role that consumers play in crunch’s ongoing acceptance. Developers often suggest that players support crunch practices, as when Rockstar co-founder Dan Houser stated that *Red Dead Redemption 2* employees worked “100-hour weeks” to provide consumers with the best possible game.<sup>3</sup> On the other hand, Houser faced intense criticism for his comments, implying that players reject crunch.<sup>4</sup> Evidence is thus both divided and anecdotal, necessitating more systematic investigation. Moreover, some developers have called for players to protest crunch, in the hopes that they could exert pressure on development companies to change.<sup>5</sup> Understanding the extent to which players care about developers’ working conditions is a necessary foundation for determining if or how they could leverage soft coercive power to alter games’ systems of production.

This article begins to address players’ attitudes toward game development crunch through a case study. We selected five articles from popular online game news sites that allow comments, purposively sampling articles about two recent game releases where developers either crunched (*Cyberpunk 2077*: CD Projekt Red, 2020) or promoted their lack of crunch (*Ratchet & Clank: Rift Apart*: Insomniac Games, 2021). We collected all comments on each article ( $n = 1,080$ ) and coded them into three categories—supportive of crunch, critical of crunch, and neutral/off topic—to develop an overall perspective on consumer attitudes. We also coded supportive or critical comments for their main idea; *why* did the commenter think crunch was good or bad? This illuminates how crunch persists or is resisted from a consumer perspective.

Overall, we found that comments supporting crunch justified it as inevitable or focused on paid, short-term forms of crunch. Commenters also normalized excessive overtime through comparison to their own experiences. Conversely, comments that critiqued crunch often highlighted the negative consequences for developers and advocated for better work practices across industries, rather than just in games. The article concludes by comparing player-based findings to existing work on the industry to clarify the tensions at play in video game labor. While this piece focuses on games, the conclusions—how consumers discursively support or undermine better working conditions for media producers—potentially speak to broader issues of creative and productive labor throughout the cultural industries and aim to make a timely contribution to the ongoing labor organizing efforts that have followed the Covid-19 pandemic.

## Literature Review

### *Games’ History of Crunch*

Both academic and industry research have critiqued the video game industry’s pervasive, exploitative labor practices. For instance, the International Game Developer Association’s 2019 Developers Satisfaction Survey found that about 19 percent of game industry employees

regularly worked over 45 hours per week, 41 percent reported working crunch time, and an additional 35 percent worked “long or extended hours that they do not refer to as crunch.”<sup>6</sup> Although the survey showed lower reported rates of crunch in 2019 compared to previous years, the percentage of employees regularly experiencing overtime remains high.<sup>7</sup> Crunch also has well-documented negative impacts on workers, as famously captured by the controversy surrounding the “EA Spouse” incident.<sup>8</sup>

There are several reasons why crunch remains common despite its costs. Many studies have highlighted the role of the “iron triangle,” or how the industry’s flexible, project-based nature lends itself to crunch as producers struggle to manage the competing pressures of budget, production schedule, and game scope.<sup>9</sup> Further work has critiqued NDAs’ role in constructing a “culture of secrecy” within the industry.<sup>10</sup> Fearful of violating their NDAs, developers often hesitate to share even general work processes, limiting the extent to which they can build strategies for avoiding crunch. Crunch may be exacerbated by changing industry frameworks; the rise of “games-as-a-service,” where companies maintain servers for online play and provide regular game updates, could generate further patterns of overwork as developers deal with an “indeterminate and ‘always on’ workflow.”<sup>11</sup> Collectively, these forces build a system where crunch is normalized as a solution to several issues.

Game developers’ passion for their work and appreciation of having a “cool” job present additional challenges.<sup>12</sup> Developers often start as players who love gaming enough to pursue it as a career. This passion frequently leads to exploitation by creating a greater supply of workers than there is a demand, coercing developers into silence and overwork as they fear being replaced.<sup>13</sup> As Chia writes, “The desire to ‘do what you love’ energizes employment and engagement in creative industries such as digital gaming yet drains hobbyists and aspirants by normalizing expectations to sacrifice job security for passionate work.”<sup>14</sup> Passion and “doing what you love” (DWYL) are a pervasive problem across creative industries, not just games,<sup>15</sup> but “the rhetoric of DWYL [hails] the power of passion as salvation from unfulfilling and exploited labour.”<sup>16</sup> These structures normalize an industry habitus in which crunch is taken for granted as part of the job and where developers aim for “good” (limited or internally motivated) over “bad” (excessive or external) crunch.<sup>17</sup>

While developers often frame crunch as a “necessary evil,”<sup>18</sup> work/life balance issues have led to increasingly frequent conversations about solutions in both the industry and academic research.<sup>19</sup> The global Covid-19 pandemic accelerated the need to find alternatives to crunch as employees faced additional workplace challenges and frequent burnout.<sup>20</sup> Proposed solutions range from individual strategies such as shifting careers, to company-wide practices such as better scheduling, to industry-wide changes such as unionization. Thus far, however, research has not addressed how players understand crunch practices, as well as the role they could play (as consumers and supporters of the industry) in advocating for—or against—better quality of life in game development.

### *Players’ Role in the Games Industry*

This is not to say that players have been entirely left out of games industry research and conversations. Most game developers begin as players. Many projects have therefore focused on how players become formally or informally imbricated into industry structures.

Players often initiate development careers by providing the industry with various forms of free labor: for example, community moderation and management, tournament organization, and modding game content.<sup>21</sup> Industry members advise aspiring professionals toward these practices,<sup>22</sup> creating what theorists from Marx to Miège have called “the large pool of ‘reserve workers,’ many of whom are unpaid but who are creating and sharing their work” and normalizing free labor to gain a foothold in the games industry.<sup>23</sup> Players also become embedded in the industry’s existing norms through formal game education, which is often “the grounds for aggressive and conservative performances of labor bravado, foreclosing collective action, moral arguments about addressing inequalities, and creativity.”<sup>24</sup> Players who become professionals often do so via problematic labor practices and assumptions.

But what about players without game development aspirations? Less research focuses on how they can support or undermine developers’ efforts to improve working conditions. As consumers, players not only choose where they want to spend their money but also which games they recommend to others, in both personal and social media networks. Platforms like Twitter, Reddit, and Twitch bring consumers and developers into closer proximity than ever before, meaning there is more potential for consumers to inform the game development cycle. In a high-risk industry like games (or other media), where budgets are large and success is uncertain, a large audience of passionate advocates can be key to success. Barroso describes this as the “developer-superfan feedback cycle,” where, in exchange for fan’s active evangelization of a product, developers draw on player feedback to shape future offerings.<sup>25</sup> Researchers have even suggested that players may further influence the industry as the “games-as-a-service” model expands and makes developers more directly accountable to their player base;<sup>26</sup> as developers produce and release new content regularly, there are significantly more opportunities for players to express their dis/satisfaction.

Fan studies research has long explored how consumers express their thoughts and desires to media producers. For instance, Scott and Dittman analyze how female audiences push back against comic book writers’ focus on male audiences, while writers like Thomas illustrate how TV creators and fans are increasingly interconnected via social media exchanges.<sup>27</sup> Navar-Gill further highlights fans’ industrial role through her analysis of how TV producers leverage fan audiences against media executives.<sup>28</sup> Production companies traditionally maintain ownership rights—and thus extensive power—over TV shows and other media. Showrunners, however, increasingly use social media to build a devoted fandom, with which they pressure executives into allowing them greater creative control. These works and others suggest that audiences exert soft coercive power in media production spaces, compelling media creators to account for their expressed desires.<sup>29</sup>

Given recent labor disputes across many industries, understanding the consumer–creator relationship in terms of work practices becomes increasingly pressing. Game developers have long accepted and normalized crunch. This project asks: To what extent have players also been inculcated into these practices and beliefs? Player feedback already informally (as described earlier) and formally affects development practices and material industry conditions, as when developers receive bonuses based on their games’ review scores.<sup>30</sup> Therefore, player attitudes can contribute to an environment in which labor practices are reaffirmed or changed. Do players accept exploitative labor practices? Or are fans critical of these

processes, potentially supporting movements that fight for more equitable, sustainable workplaces? Through this case study, we start to address these broader questions by assessing players' basic reactions to news of crunch. In turn, we hope that these targeted findings motivate further research on consumers and labor across media industries, many of which face similar challenges.

## Methods

Crunch has historically been underreported, and the game industry's culture of secrecy discourages developers from speaking freely about the topic.<sup>31</sup> Articles about crunch are therefore important to analyze, as they provide players with insight into how games are made. Players are also used to expressing themselves on game news and review sites; for example, players can engage in "review bombing" to communicate their support for or criticism of a product to developers.<sup>32</sup> Finally, comments are public-facing; we do not have equal access to letters or emails sent to a company. For these reasons, we purposively selected a set of articles about crunch published in popular online game news sites to consider comments as representative of "social phenomenon of interest," that is, player attitudes toward labor conditions.<sup>33</sup>

We chose articles about the production of two recent games: *Cyberpunk 2077*, where the studio used crunch to complete the game, and *Ratchet & Clank*, which was allegedly crunchless.<sup>34</sup> To provide consistency across readership and commenting formats, we searched several news sites to determine (1) which had published articles on both *Cyberpunk* and *Ratchet & Clank* and (2) which allowed comments. These criteria led us to the publications IGN and Kotaku; while many sources covered one of the relevant games, only these sites covered both games with a focus on crunch (and allowed comments.) Given these limitations, we opted to conduct a comparative case study, analyzing the set of articles that could be matched.<sup>35</sup> We also included one article from Polygon that focused on player reactions to the *Cyberpunk* crunch; as this article critiqued players for not supporting developers, its comment section provides a more "meta" perspective on player-creator relations. The full list of analyzed articles is in Table 1.

We collected all comments on each article, uploaded them to the qualitative analysis program Dedoose, and coded them into three categories: supportive of crunch, critical of crunch, and neutral/unrelated. This allowed us to determine how frequently consumers supported or resisted crunch ideologies. We were conservative in our coding to avoid misrepresenting commenters. For instance, we coded this comment from the IGN *Cyberpunk* article as neutral/unrelated: "I would definitely not have blamed them to hold it off but I'm guessing that holiday release date was too tasty for them to pass up." This comment could be read as "supportive" because it justifies crunch to meet the deadline, but the commenter is simultaneously willing to wait to spare developers. Because of this split perspective, we considered it neutral. We recognize that one cannot truly be "neutral" about overwork and exploitation and that ambivalence often perpetuates structural inequality, but as the comments' text-based nature inhibited additional clarification, it was necessary to limit our analysis in some ways.

**Table 1.** List of Articles Analyzed

Publication venue	Game	Article title	Author	Date	Link
IGN	Ratchet & Clank	Ratchet and Clank Devs Take to Twitter to Praise What They Say is Lack of Crunch at Insomniac	Kat Bailey	6/8/2021	<a href="https://www.ign.com/articles/ratchet-and-clank-insomniac-no-crunch-ps5-news">https://www.ign.com/articles/ratchet-and-clank-insomniac-no-crunch-ps5-news</a>
IGN	Cyberpunk	Cyberpunk 2077 Devs Reportedly Required to Crunch to Meet November Release Date	Matt Kim	9/29/2020	<a href="https://www.ign.com/articles/cyberpunk-2077-crunch-cd-projekt-red-report">https://www.ign.com/articles/cyberpunk-2077-crunch-cd-projekt-red-report</a>
Kotaku	Cyberpunk	Report: Cyberpunk 2077 Developers Will Be Crunching, Despite Promises They Wouldn't	Luke Plunkett	9/29/2020	<a href="https://kotaku.com/report-cyberpunk-2077-developers-will-be-crunching-de-1845220746">https://kotaku.com/report-cyberpunk-2077-developers-will-be-crunching-de-1845220746</a>
Kotaku	Ratchet & Clank	Ratchet & Clank: Rift Apart Devs Say It Was Created Without Crunch	John Walker	6/9/2021	<a href="https://kotaku.com/ratchet-clank-rift-apart-devs-say-it-was-created-wit-1847061180">https://kotaku.com/ratchet-clank-rift-apart-devs-say-it-was-created-wit-1847061180</a>
Polygon	Cyberpunk	The Cyberpunk 2077 crunch backlash	Patricia Hernandez	10/7/2020	<a href="https://www.polygon.com/2020/10/7/21505804/cyberpunk-2077-cd-projekt-red-crunch-youtube-jason-schreier-labor-the-witcher-3">https://www.polygon.com/2020/10/7/21505804/cyberpunk-2077-cd-projekt-red-crunch-youtube-jason-schreier-labor-the-witcher-3</a>

We also coded several threads on game pricing, labor laws, and inside jokes among commenters in the neutral/unrelated category, provided they did not take a clear stance on crunch. This resulted in a high number of “neutral/unrelated” codes but also more carefully grounded conclusions.

We then conducted an inductive thematic analysis to evaluate supportive or critical comments' main ideas.<sup>36</sup> Each coauthor familiarized themselves with the full dataset, and then we divided the sample roughly in half. We carefully read and coded each comment. Multiple codes could be applied to one answer. For instance, a comment like “Seems fine to me. A single day extra per week? Paid extra? Only have to do that a few times? Seems like a very normal process for any company with a deadline” (Kotaku, 2020) was coded first as “supportive of crunch,” then as “crunch is inevitable,” “comparison to other jobs/industries,” “limited crunch,” and “paid crunch.” Allowing multiple codes per comment helped reveal thematic overlaps and permitted more nuanced analysis. Dedoose's cloud-based structure ensured that our shared codebook updated throughout this process, and coding was iterative; we returned to previously analyzed comments to apply new codes as needed. Coders regularly engaged in peer debriefing and triangulation. If a coder was uncertain how a comment should be coded, we employed an “unknown” tag to mark the excerpt, then discussed collectively to choose an appropriate coding scheme.

Following open coding, we assessed how often codes appeared and how they co-occurred to generate broader themes.<sup>37</sup> Generating, defining, and naming themes were also inductive, “coding the data without trying to fit it into a preexisting coding frame or the researcher’s analytic preconceptions.”<sup>38</sup> Although both authors have previously researched crunch within the industry, players’ attitudes are less understood. We therefore wanted to ensure that we accounted for the full range of their perspectives.

## Results

### Overall Stance Distributions

Our analysis revealed that slightly more comments supported crunch (369) than were critical of it (306). Likely due to our conservative coding strategy, there were more neutral/unrelated comments (405) than either other category. While players’ stances toward crunch were roughly even numerically, their opinions occurred unevenly across articles. The two *Ratchet & Clank* articles, which praised the developers for avoiding crunch, both had more comments that criticized crunch than supported it (see Table 2). The Polygon article, which explicitly criticized players who did not support better working conditions for developers, followed this pattern too. The two articles on *Cyberpunk*, however, showed the reverse. In the case of the IGN *Cyberpunk* article, supportive comments occurred almost twice as often as critical ones.

These distributions suggest that while many players support using crunch, there is also a large contingent of players who do not. Readers may also choose to comment on articles that confirm their beliefs more frequently than those that challenge them, as articles that framed crunch as detrimental also had more comments taking this stance. Moreover, the games themselves may have affected these patterns. *Cyberpunk 2077* was promoted as one of the most innovative role-playing games of the decade and was already delayed at the time of the studio’s crunch announcement. Conversely, *Ratchet & Clank: A Rift Apart* is a cartoonish, family-friendly title that was likely not as highly anticipated as *Cyberpunk*. Players may have been more willing to support crunch to get *Cyberpunk* than to get a game like *Ratchet & Clank*.

**Table 2.** Comment Distributions (Critical, Neutral, or Supportive)

Publication Venue	Game	Critical of Crunch	Neutral/ Unrelated	Supportive of Crunch	Total Comments/ Article
IGN	Ratchet & Clank	32	27	10	69
IGN	Cyberpunk	135	238	248	621
Kotaku	Cyberpunk	59	62	62	183
Kotaku	Ratchet & Clank	10	9	2	21
Polygon	Cyberpunk	70	69	47	186
Total Comments/ Stance		306	405	369	1080

Having established these broader patterns, we proceeded to evaluate *how* players supported or critiqued crunch. Overall, we found that comments supporting crunch frequently framed it as inevitable. This code commonly overlapped with two other prominent codes: “comparison to other jobs/industries” and “crunch is effective.” Collectively, these form a theme suggesting that crunch is a standard part of games and other industries. Another theme combined the codes “paid crunch” and “limited crunch”—that is, commenters promoted the idea that crunch was acceptable if it came with extra compensation and/or only occurred for a short time. Following previous research, we called this theme “‘good’ crunch.”<sup>39</sup> While there were other “supportive” themes, such as the idea that a successful end product justifies crunch, these five codes were by far most prominent both in number and in their tendency to co-occur.

In contrast, comments that criticized crunch overwhelmingly focused on its negative effects on workers. They also tended to view crunch as a management failure or a coercive choice on the part of exploitative companies. Finally, often in reaction to supportive comments arguing that crunch was common to many industries, critics contended that workers in all jobs—not just games—deserved better working conditions, leading to a high co-occurrence of the codes “critical” and “comparison to other jobs.”

### *Supportive of Crunch Themes*

#### Crunch as Standard

The most prominent theme in our data set links three highly related codes: “crunch is inevitable,” “crunch is effective,” and “comparisons to other jobs.” “Crunch is inevitable” comments were most common. These implied that crunch is unavoidable in game production and that developers should expect to crunch as part of their routine duties. For example, one commenter claimed, “when they signed up to be a designer they knew that came with deadline.” These comments appeared most in the *Cyberpunk* articles but were also present in the *Ratchet & Clank* pieces. Similarly, there was a pervasive belief that workers should quit if they were unhappy: “Not a single employee in the gaming industry wasn’t aware that there would be a lot of crunch in that industry. It was their own choice to work in that industry” (IGN, 2020). There is a palpable sense of hostility embedded in these comments, addressed further below.

Multiple commenters argued that crunch was an effective strategy for meeting deadlines, creating better products, or even showing a developer’s passion for their work. One commenter plainly stated, “excellence requires sacrifice” (Polygon, 2020), while another enthusiastically claimed: “You want games? You want them to be good? You want them to be done? You want them to come out on time? Let them do what they do to get it there” (IGN, 2020). These comments shared the same critical tone as the “inevitable” comments; many commenters implied that delaying a game’s release was a cardinal sin that developers should crunch to avoid.

Comments that defend crunch as both inevitable and effective resemble discourses that circulate within the industry itself,<sup>40</sup> suggesting these may permeate out to players. Emphasizing how “excellence requires sacrifice,” for instance, resonates with the industry’s

technomascuine ethos, which emphasizes knowledge and control over technology as well as an attitude of “working in the trenches.”<sup>41</sup> This normalization of crunch, and expressed hostility toward its critics, may establish a foundation for players to pressure developers into accepting detrimental working conditions. If developers and players both feel that crunch is normal, and necessary to produce the best games, it is likely more difficult for labor activists to encourage alternative work practices.

The perception of crunch as inevitable was reemphasized in many comments where writers compared developers’ experiences with crunch to their own work. “Comparisons to other jobs” comments referred to other game companies as well as careers outside of the game industry. For example, multiple comments on the *Cyberpunk* articles compared CD Projekt Red to other studios known for crunching, such as Rockstar Games or EA, arguing, “This isn’t Naughty Dog doing 70 hour weeks for months straight without pay kind of bullshit” (Kotaku, 2020). More interesting, however, were the myriad comparisons to both blue- and white-collar jobs, ranging from construction workers laboring in the hot sun to highly trained physicians enduring the same hours as game developers; “good thing doctors never complain about this stuff” (IGN, 2021).

Once again these comments maintained a hostile tone toward anyone speaking out against crunch, perhaps using these articles as a way to voice commenters’ frustrations with their own careers. As one commenter put it, “I work under the same conditions but it’s not in the entertainment industry so nobody cares I guess” (Kotaku, 2020). An IGN (2020) commenter similarly stated, “awe boo hoo. Nobody was crying for me when I was working 80 hours a week in the heat and rain, they’re getting over time and MORE money!! Sometimes you gotta grind it. They’ll get through it.” These responses highlight ingrained ideologies around workaholism or labor exploitation; commenters *expected* overwork as a normal part of their jobs. Exposure to crunch articles resulted in them doubling down on this normalization, rather than reevaluating their perspectives.

At the root of this anger was the implication that developing games was not taxing on the laborer, with commenters ridiculing game developers as “sensitive office workers” (IGN, 2020). Many “comparison to other jobs” comments framed game development as preferable to the commenter’s job because “these guys get to work at a computer in air-conditioning” (IGN, 2020). Although game production requires various forms of creative, technological, and immaterial labor, and is often precarious, outside commenters did not necessarily recognize these struggles. Instead, comments tended to deride the value of office or desk work. Moreover, many comments mentioned the writers’ lack of a college degree, for example, “Man it must suck to have a career where you get paid to work 6 days a week . . . and work in the air conditioning behind a computer screen I didnt go to college . . . ive worked hard before. I dont feel sorry for these programmers” (IGN, 2020). While these comments do reflect the reality that 96 percent of game developers possess a college degree or at least some formal training,<sup>42</sup> the comparisons between degreed and non-degreed work also advance several class-based divisions.

Comments that claim that crunch is inevitable or effective, or that compare game development to other jobs, all normalize crunch while critiquing the workers who complain. Such comments are in many ways unsurprising, neatly fitting into neoliberal ideologies that frame

work as an individual choice and that resist labor organizing, unionization, and strong workplace protections.<sup>43</sup> Commenters also effectively challenge the validity of the technological and creative labor needed to produce digital games. The frequent use of hostile language suggests that developers should be thankful to have a job that many perceive to be easy or fulfilling. Comments like these may reaffirm separations between blue-collar and white-collar work while simultaneously downplaying game developers' precarity. Similarly, this degradation of technological and creative labor potentially prevents blue-collar *player-laborers* from expressing solidarity with white-collar *developer-laborers* against overall systems of exploitation.

### “Good” Crunch

Following this first theme of crunch as inevitable, effective, and common across industries, comments that supported crunch also frequently advanced beliefs regarding “good crunch.”<sup>44</sup> Comments suggested crunch was permissible if employees were earning overtime wages or if the crunch was short term (e.g., only crunching at the final stage of development). Many commenters expected a crunch to meet deadlines and strongly asserted that working one extra day a week, or earning overtime wages, was acceptable:

There being told to work 6 days a week instead of 5 for a little under 2 months max with no expectation to work more than scheduled hours each day. I know they went back on there word but the work itself doesn't sound unreasonable. Are we condemning any game dev overtime always from this point forward?”

(Kotaku, 2020)

Another commenter remarked, “I don't know why this would be a big deal as long as they're treated with respect, get proper breaks and rest periods, and don't have to do it every single quarter” (IGN, 2020). However, games journalists reported that CDPR employees had allegedly been crunching to some extent since 2018; crunch was *not* truly limited.<sup>45</sup> Further, as *Cyberpunk* started development in 2013, the fact that commenters still expected a limited crunch in the final months of 2020 indicates how normalized this practice is. The concept of “good crunch” helps downplay instances in which crunch has endured for months or even years, as with games like *Red Dead Redemption 2*, *Stardew Valley*, or *The Last of Us 2*.<sup>46</sup> It thus serves as a form of cruel optimism, presenting an ideal of improvement while in practice reaffirming continued exploitation and overwork; there is actually no such thing as a “good” crunch.<sup>47</sup>

### *Critical of Crunch Themes*

#### Crunch's Negative Impacts

In contrast to supportive comments, which split between a few key themes, comments that were critical of crunch practices overwhelmingly discussed crunch's negative effects on workers. Comments in this category included statements such as “people's lives are more important than sales forecasts. Unfortunately the people in charge don't see it that way” (IGN, 2020). More specifically, comments pointed to crunch's negative impacts on

employee health and their work/life balance, and to the game industry's high rate of employee burnout.

Within discussions of health, commenters on the IGN Cyberpunk article stated things like “i mean i want cyberpunk but i dont want anyone dropping dead from exhaustion.” Others compared the *Cyberpunk* developers' crunch to their own personal experience: “I've worked in those sort of environments and (no joke) they do permanent damage to people's health. Inexcusable” (Polygon, 2020). One commenter on the IGN piece about *Ratchet & Clank* stated, “It's a crazy world we live in now where employees feel the need to broadcast it to the world that they DIDN'T get worked almost to death/insomnia/depression/high stress etc.” Overall, critical commenters recognized that—even though game development is a desk job—working long hours could have both short- and long-term effects on employees' health.

Other commenters felt that crunch was not justified due to its impacts on those around them. One forceful comment stated, “'Passion' doesn't mean shit. I like what I do but I also have a family I like to spend time with. If I'm working overtime for free it means I'm losing time with my family to benefit a company with nothing in return” (Kotaku, 2020). While comments like this were less prominent across the other articles in the dataset, their inclusion in at least a few locations shows commenters' wider critiques of crunch, beyond health impacts.

Finally, critical comments pointed to how crunch negatively impacts the industry overall. As one longer comment framed it:

The average span of an engineer in the gaming industry is 5 years. Imagine all that time spent going to school and learning your craft only to make it 5 years in the industry. Most of these guys burn out because of the hours they are putting in. [ . . . ] While I don't usually endorse unionizing, there's almost no argument that can possibly be made in favor of not doing so. I for one want developers in general to be compensated fairly and treated humanely for their efforts. I want them to stay in the industry longer and continue to contribute to their craft that we, as consumers, vastly enjoy.  
(IGN, 2020)

Comments in this vein highlight how losing experienced developers to crunch affects game fans and players, as well as industry members. With this stance, they posit that gamers who truly want the best games should support sustainable work practices.

The negative impacts that commenters identified have been previously reported in both industry and research spaces. Bulut, for instance, found that game developers' ability to crunch often required their having a (usually female) partner who picked up the extra burden of domestic labor.<sup>48</sup> Work on employee burnout has also highlighted how it differentially affects older and female employees,<sup>49</sup> leading to a loss of experienced creators and of diverse perspectives. Some comments even recognized that crunch is ineffective, as overworked employees are less productive and more likely to make mistakes.<sup>50</sup> One Polygon comment, for instance, stated, “It's well known at this point that extended work hours decrease productivity so the person you're responding to is factually incorrect. Crunch is not a viable competitive strategy outside the short term.” Thus, commenters who critiqued crunch's negative effects on workers also highlighted its costs for workers' families, players, companies, and the industry overall.

## Company or Management Failure

After establishing why they viewed crunch as bad, critical comments tended to focus on who to blame. The next most prominent critical codes— “management failure” and “company choice/culture”—both suggested that crunch occurred when management failed to schedule effectively, planned for crunch to occur, or built a company culture where employees were pressured into working overtime.

“Management failure” comments included statements like “The fact they have to do crunch proves that management isn’t very good at setting proper deadlines” (Polygon, 2020) or “get better management and crunch won’t happen” (IGN, 2021). Some comments critiqued how the industry lacked specific managerial training, leading to poor scheduling that was often solved with crunch. Additionally, comments frequently railed against the fact that management could institute crunch but was less likely to be negatively affected by it. One such comment, from the IGN *Cyberpunk* article, stated, “Every time this happens, it’s a failure of the management but the workers pay the price of their incompetence by crunching!” Commenters consistently blamed crunch on management decisions, investor greed, and inefficient scheduling.

Company choice/culture comments were similar but blamed crunch on company structures as a whole rather than just management. For instance, a Polygon comment said, “Companies that aren’t concerned about burning out and churning through employees use crunch. Companies that view their employees as long term investments that pay off over many years absolutely do not do this.” Statements like this framed crunch as something companies chose to do, rather than as an inevitable part of development. Commenters who critiqued *Cyberpunk* studio CD Projekt Red for instituting crunch argued this was a sign they did not care about their workers; those who complimented *Ratchet & Clank* developer Insomniac Games for avoiding crunch argued that this proved quality games could be produced in sustainable ways. Players also felt that studios could encourage crunch even if/when they did not mandate overtime; “They can create a culture of peer pressure without having to force crunch and deal with the bad publicity” (Kotaku, 2021). Readers were highly attentive to structures of power within media industries, particularly how companies or managers could institute crunch, normalize its use, and even pressure employees into unhealthy work patterns without explicitly forcing these. Simultaneously, commenters’ support of developers who produced games without crunch helped highlight alternatives.

## Comparison to Other Industries

Finally, it is worth noting that the code “comparison to other industries,” which was commonly applied to comments supporting crunch (123 co-occurrences), frequently applied to comments critical of crunch as well (56 co-occurrences). These comments often emerged in response to other writers arguing that crunch was a normal part of any industry; critics contended that *no* industry should rely on crunch to succeed. They also called out other commenters for internalizing ideologies of overwork, encouraging them to rethink their beliefs. For example, a comment from the IGN *Cyberpunk* article stated, “If your take on this story is ‘But I work 60 hour weeks across several days too’ then you ought to be asking serious

questions about your job. That’s unhealthy. That wrong doesn’t make this right.” These commenters advocated for all workers to consider the costs of their current labor practices and push for improvement across industries, not just games. Labor activists should aim to find and amplify these voices if they seek to draw further attention to the costs of crunch and promote overall reforms.

## Discussion

Although commenters both supported and criticized crunch practices, many seem to have internalized game industry ideologies about crunch. Players’ belief that crunch is “inevitable,” for instance, is unsurprising given how pervasive crunch logics are in the game environment, from workplaces,<sup>51</sup> to video game and trade press,<sup>52</sup> to game design education,<sup>53</sup> to conventions and hobbyist spaces.<sup>54</sup> Players who are involved enough in gaming to seek out and comment on articles about game production have likely been exposed to many of these beliefs. Further, many comments positioned gamework as desirable, a “cool” job that grants significant cultural capital, reflecting many of the reasons why developers themselves value their careers.<sup>55</sup> In both cases, however, this belief can mask the labor issues that permeate game design, with developers’ passion driving them to overwork and exploitation while players focus on the glamour of gamework rather than its costs. Indeed, some comments seemed to resent any suggestion that gamework was a less-than-ideal career.

Support for crunch is further unsurprising when viewed through the lens of “Do What You Love” discourse and the ideal of the enterprising self.<sup>56</sup> DWYL posits that individuals who *truly* care about what they do will not only offer their labor for free but even be grateful for the chance to do so.<sup>57</sup> DWYL is held up as inherently better than laboring in a job you don’t care about, due to its presumed emotional payoffs. These constructions are evident in many “comparison to other jobs” comments, where writers displayed hostility toward game developers who complain about their work conditions. Comments framed crunch as something developers should expect and accept, especially if they care about their work. As Chia points out, however, this “moralizing of passionate work as compensation for job insecurity and workaholism” masks significant labor issues and can trap passionate employees in a cycle of overwork.<sup>58</sup>

Finally, commenters who supported crunch also often fell into the practice of assuming desk work was not “real” work, perceiving it as easier than careers such as construction or medicine. This speaks to broader issues with the rise of immaterial labor. As Brophy and de Peuter describe, the figure of the “knowledge worker” emerges from post-Fordist economic and labor transformations that prioritize technological, service, and white-collar work over more traditional blue-collar careers.<sup>59</sup> Commenters’ critiques of game developers tacitly reflect a form of occupational push-back, where their hostility toward office workers may emerge from the displacement of traditional workplaces and the skilled trades in the Global North.

Such divisions hinder cross-industry solidarity. When gameworkers outline the challenges they face, many commenters, instead of seeing an opportunity to advocate for better work practices across fields, argue that developers should not complain because others have it

worse. This ignores how precarity, overwork, and even the global economy's increased reliance on "freelancers, contract hires, and interns" span a variety of fields.<sup>60</sup> Addressing these collectively, rather than individually, could be empowering to workers able to overcome disagreement about how various forms of labor "count."

Many commenters have already advanced along this path, pointing out how exploitative labor practices like crunch negatively affect workers, come to be built into company culture, and should be addressed across industries. Further, the fact that many comments critiqued crunch as exploitative suggests the need for further attention to these counter-hegemonic discourses among both players and gameworkers. Our cross-sectional data cannot indicate whether anti-crunch attitudes are rising among consumers, but we expect they are given how conversations about crunch, labor, and unionization are becoming more prominent in the industry.<sup>61</sup> The articles/comments under analysis were also published in late 2020 and early/mid-2021, in the early stages of the global Covid-19 pandemic and largely in advance of 2021's massive labor movements. Thus, it's unclear how things changed as employees adjusted to working from home, or what effect (if any) events like the International Alliance of Theatrical Stage Employees (IASTE) protests or the Great Resignation<sup>62</sup> may have played in building support or criticism of crunch among consumers. Future research should engage in a longitudinal comparison to explore these factors.

## Limitations

This project has several limitations. The text-based, case-study methodology is narrow in focus, and it can only speak to what discourses circulate among players; it cannot speak to how developers engage with this consumer pressure. Given industry conventions like bonuses based on review scores, we expect that players can affect production decisions, but further research should interview developers to determine if/how this happens. We also struggled to find articles about studios that do not employ crunch, limiting our scope and requiring us to assess two very different games. *Cyberpunk 2077* and *Ratchet & Clank* fall into different genres with different target audiences. *Cyberpunk* also follows the "games-as-a-service" model, where developers release additional content after the game's initial publication, while *Ratchet & Clank* is a "games-as-a-product" creation, meaning development ends upon release.<sup>63</sup> Thus, it may have been easier for the *Ratchet* team to avoid crunch than the *Cyberpunk* team. Furthermore, *Cyberpunk* was produced in Poland while *Ratchet & Clank* was developed in the United States. These countries have distinct labor laws and production contexts,<sup>64</sup> a fact many commenters in our dataset recognized. We did not have the space to address this theme in the current article, but future work should explore how players view different game production contexts through the lens of crunch and labor. Moving forward, we plan to broaden our analysis historically to provide more examples for comparison and to overcome several of these challenges.

Another limitation emerges from our highly-specialized, pseudonymous dataset. Comments are likely left by people who are passionate about video games and motivated to seek out journalistic coverage regarding their production. These individuals' opinions may not resemble

those held by more casual players. Commenters' pseudonymity also means we cannot assess *who* is speaking. Further work should follow up with interviews or surveys to explore which players are more likely to support or critique crunch practices. However, our initial results speak to the highly contested nature of crunch and indicate why this topic is worthy of further study.

Finally, because we specifically examined articles about crunch, we cannot evaluate how commenters' hostility toward developers might play out in other parts of the production process. We suspect that hostile comments may be leveled more often against female, BIPOC, and LGBTQ+ developers who are significantly more likely to experience online harassment.<sup>65</sup> Similarly, indie developers, who are often more entangled with potential players than their AAA counterparts, may face a larger burden of consumer pressure with fewer resources for managing this. Adding coverage of indie games, as well as those produced by non-traditional gamers, would add further nuance to this research, as would studying labor practices beyond crunch.

## Conclusions

With recent protests occurring in industries from auto making, to food production, to entertainment, questions about labor are at the top of the news cycle.<sup>66</sup> In particular, the 2021 IATSE negotiations, where members of the union voted to strike prior to reaching a tentative agreement with the producers' guild, and the recent unionization efforts at video game studios like Vodeo and Raven Software highlight ongoing labor conversations within media and entertainment industries.<sup>67</sup> The process by which labor practices get reinforced or change merits further analysis, especially as industry frameworks such as the "games-as-a-service" model become increasingly common.<sup>68</sup> In this article, we have found that, while many commenters argue against crunch, this practice still has significant support among consumer bases, at least in the case of game players who engage with articles about crunch. Thus, we contend that further change is needed to fully recognize and reject ideologies of overwork. While improved labor practices are most likely to occur through the efforts of developers and activists, these groups should consider how player-consumers can be incorporated into ongoing conversations to help construct a larger foundation and spread the burden of organizing work. We suggest encouraging workers across industries to focus on shared elements of their experience, rather than hierarchical valuations of "real work," to build solidarity and advocate more collectively. These changes could then integrate with growing interest in unionization and workplace practices within media industries themselves.

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<sup>1</sup> Casey O'Donnell, *Developer's Dilemma: The Secret World of Videogame Creators* (Cambridge, MA: MIT Press, 2014); Amanda Peticca-Harris, Johanna Weststar, and Steve Mckenna, "The Perils of Project-Based Work: Attempting Resistance to Extreme Work Practices in Video Game Development," *Organization* 22, no. 4 (2015): 570–87, <https://doi.org/10.1177/1350508415572509>.

- <sup>2</sup> Amanda C. Cote and Brandon C. Harris, “‘Weekends Became Something Other People Did’: Understanding and Intervening in the Habitus of Video Game Crunch,” *Convergence* 21, no. 1 (2021): 161–76, <https://doi.org/10.1177/1354856520913865>.
- <sup>3</sup> Harold Goldberg, “The Making of Rockstar Games’ Red Dead Redemption 2,” *Vulture*, October 14, 2018, <https://www.vulture.com/2018/10/the-making-of-rockstar-games-red-dead-redemption-2.html>.
- <sup>4</sup> Allegra Frank, “Rockstar Responds to Blowback over Red Dead Redemption 2 Team’s ‘100-Hour’ Workweeks,” *Polygon*, October 15, 2018, <https://www.polygon.com/2018/10/15/17979818/red-dead-redemption-2-crunch-dan-houser-interview>.
- <sup>5</sup> Tyler Owens, “Tyler Owens 🇺🇸 on Twitter: ‘I Wish Gamers Would Get as Upset about Crunch, Layoffs, the Mistreatment of Women and POC Devs, Etc. and Rally around It Half as Well as They Do about in-Game Features Like Microtransactions or Aim Assist,’” Twitter, February 5, 2022, <https://twitter.com/heytreed/status/1490067427014504448>; Walker, Del @TheCartelDel. “AKA Bruce Leeroy on Twitter: ‘Gamers: “Gamedevs Are Lazy Nowadays. Nobody Ends Up in Hospital from Overtime” Lol Here’s Me in Hospital after Collapsing from GameDev Burnout before the Dr Explained My “Blood Is Flooded with Lactate from Prolonged Stress’. She Then Asked If I’m in the Military. A Thread! 🧵1/5 https://t.co/VtvIt6zb9F’/Twitter.” Twitter, August 23, 2022. <https://twitter.com/TheCartelDel/status/1562037522598924293>
- <sup>6</sup> Weststar, Johanna, Eva Kwan, and Shruti Kumar. “Developer Satisfaction Survey 2019: Summary Report.” November 20, 2019. [https://igda-website.s3.us-east-2.amazonaws.com/wp-content/uploads/2020/01/29093706/IGDA-DSS-2019\\_Summary-Report\\_Nov-20-2019.pdf](https://igda-website.s3.us-east-2.amazonaws.com/wp-content/uploads/2020/01/29093706/IGDA-DSS-2019_Summary-Report_Nov-20-2019.pdf).
- <sup>7</sup> The 2021 survey showed increased crunch and overtime; as these data were collected during the global Covid-19 pandemic, we employ the 2019 statistics to better reflect the industry under normal circumstances. Johanna Weststar, Shruti Kumar, Trevor Coppins, Eva Kwan, and Ezgi Inceefe, “Developer Satisfaction Survey 2021: Summary Report,” September 13, 2021, 25, <https://igda.org/resources-archive/developer-satisfaction-survey-summary-report-2021/>.
- <sup>8</sup> Miikka Kuutila et al., “Daily Questionnaire to Assess Self-Reported Well-Being during a Software Development Project,” in *SEmotion ’18: Proceedings of the 3rd International Workshop on Emotion Awareness in Software Engineering*, ed. Andrew Begel, Alexander Serebrenik, and Daniel Graziotin. Seoul, Korea: IEEE Computer Society, 2018), 39–43, <https://doi.org/10.1145/3194932.3194942>; Mariko Nishikitani et al., “Influence of Overtime Work, Sleep Duration, and Perceived Job Characteristics on the Physical and Mental Status of Software Engineers,” *Industrial Health* 43, no. 4 (2005): 623–29, <https://doi.org/10.2486/indhealth.43.623>; Coray Seifert, “Why We Can’t Afford to Crunch: The Business Sense Behind Good Quality of Life,” Game Developers Conference, 2013, <https://www.gdcvault.com/play/1017826/Why-We-Can-t-Afford>; Thomas A. Wright and Russell Cropanzano, “Psychological Well-Being and Job Satisfaction as Predictors of Job Performance,” *Journal of Occupational Health Psychology* 5, no. 1 (2000): 84–94; Nick Dyer-Witford and Greig S. de Peuter, “‘EA Spouse’ and the Crisis of Video Game Labour: Enjoyment, Exclusion,

- Exploitation, and Exodus,” *Canadian Journal of Communication* 31, no. 3 (2006), <https://doi.org/10.22230/cjc.2006v31n3a1771>; Erin Hoffman, “EA: The Human Story,” Weblog post, November 10, 2004, <https://ea-spouse.livejournal.com/274.html>.
- <sup>9</sup> Peticca-Harris, Weststar, and Mckenna, “The Perils of Project-Based Work”; Johanna Weststar and Marie-Josée Legault, “Why Might a Videogame Developer Join a Union?” *Labor Studies Journal* 42, no. 4 (2017): 295–321, <https://doi.org/10.1177/0160449X17731878>; Johanna Weststar and Marie Josée Legault, “Building Momentum for Collectivity in the Digital Game Community,” *Television and New Media* 20, no. 8 (December 1, 2019): 848–61, <https://doi.org/10.1177/1527476419851087>.
- <sup>10</sup> O’Donnell, *Developer’s Dilemma*.
- <sup>11</sup> Louis Etienne Dubois and Johanna Weststar, “Games-as-a-Service: Conflicted Identities on the New Front-Line of Video Game Development,” *New Media & Society* 24, no. 10 (2022): 2332–2353, <https://doi.org/10.1177/1461444821995815>.
- <sup>12</sup> Ergin Bulut, *A Precarious Game: The Illusion of Dream Jobs in the Video Game Industry* (Ithaca, NY: ILR Press, 2020), <https://doi.org/978-1501746536>.
- <sup>13</sup> Mia Consalvo, “Crunched by Passion: Women Game Developers and Workplace Challenges,” in *Beyond Barbie and Mortal Kombat: New Perspectives on Gender and Gaming*, ed. Yasmin B. Kafai, Carrie Heeter, Jill Denner, and Jennifer Y. Sun (Cambridge, MA: MIT Press, 2008), 117–90; Mark Deuze, Chase Bowen Martin, and Christian Allen, “The Professional Identity of Gameworkers,” *Convergence* 13, no. 4 (2007): 335–53, <https://doi.org/10.1177/1354856507081947>; Nick Dyer-Withford and de Peuter, *Games of Empire: Global Capitalism and Video Games* (Minneapolis, MN: University of Minnesota Press, 2009); Alison Harvey and Tamara Shepherd, “When Passion Isn’t Enough: Gender, Affect and Credibility in Digital Games Design,” *International Journal of Cultural Studies* 20, no. 5 (2017): 492–508, <https://doi.org/10.1177/1367877916636140>; Aphra Kerr, “The Culture of Gamework,” in *Managing Media Work*, ed. Mark Deuze (London, UK: Sage, 2011), 225–36.
- <sup>14</sup> Aleena Chia, “The Moral Calculus of Vocational Passion in Digital Gaming,” *Television & New Media* 20, no. 8 (2019): 767, <https://doi.org/10.1177/1527476419851079>.
- <sup>15</sup> Lindsay J. DePalma, “The Passion Paradigm: Professional Adherence to and Consequences of the Ideology of ‘Do What You Love.’” *Sociological Forum* 36, no. 1 (2021): 134–58, <https://doi.org/10.1111/SOCF.12665>; Brooke Erin Duffy, *(Not) Getting Paid to Do What You Love: Gender, Social Media, and Aspirational Work* (New Haven, CT: Yale University Press, 2017); Marisol Sandoval, “From Passionate Labour to Compassionate Work: Cultural Co-Ops, Do What You Love and Social Change,” *European Journal of Cultural Studies* 21, no. 2 (2018): 113–29, <https://doi.org/10.1177/1367549417719011>.
- <sup>16</sup> Sandoval, “From Passionate Labour to Compassionate Work,” 114.
- <sup>17</sup> Cote and Harris, “‘Weekends Became Something Other People Did’”; Amanda C. Cote and Brandon C. Harris, “The Cruel Optimism of ‘Good Crunch’: How Game Industry Discourses Perpetuate Unsustainable Labor Practices,” *New Media & Society* 25, no. 3 (2023): 609–627, <https://doi.org/10.1177/14614448211014213>.
- <sup>18</sup> Natalie Clayton, “Telltale Co-Founder and Former CEO Kevin Bruner Calls Crunch a Necessary Evil,” *PC Games Insider*, April 17, 2019, <https://www.pcgamesinsider.biz/news/68864/telltale-co-founder-and-former-ceo-kevin-bruner-calls-crunch-a-necessary-evil/>; Frank, “Rockstar Responds to Blowback over Red Dead Redemption

- 2 Team's '100-Hour' Workweeks"; Owen S. Good, "Cyberpunk 2077 Still Needs Crunch Time to Complete, CEO Says," *Polygon*, January 18, 2020, <https://www.polygon.com/2020/1/18/21071895/cyberpunk-2077-delay-crunch-cd-projekt-red>.
- <sup>19</sup> David Amor, "Your Shameful Secret Addiction to Crunch," Game Developers Conference, 2008, <https://www.gdcvault.com/play/330/Your-Shameful-Secret-Addiction-to>; Scott Bonds et al., "Quality of Life in the Game Industry: Challenges and Best Practices," 2004, [www.igda.org/qol](http://www.igda.org/qol); Daniel Cook et al., "IGDA: Working to Death - Game Developers and the Future of Work-Life Balance," Game Developers Conference, 2010, <https://www.gdcvault.com/play/1012695/IGDA-Working-to-Death-Game>; Hank Howie, "Making Great Games in 40 Hours Per Week," *Game Developer* 12, no. 1 (January 2005): 18–25; Seifert, "Why We Can't Afford to Crunch"; Paolo Ruffino and Jamie Woodcock, "Game Workers and the Empire: Unionisation in the UK Video Game Industry," *Games and Culture* 16, no. 3 (2021): 317–28, <https://doi.org/10.1177/1555412020947096>; Weststar and Legault, "Why Might a Videogame Developer Join a Union?"; Jamie Woodcock, "How to Beat the Boss: Game Workers Unite in Britain," *Capital & Class* 44, no. 4 (December 12, 2020): 523–29, <https://doi.org/10.1177/0309816820906349>.
- <sup>20</sup> Shannon Liao, "A Year into the Pandemic, Game Developers Reflect on Burnout, Mental Health and Avoiding Crunch," *The Washington Post*, April 15, 2021, <https://www.washingtonpost.com/video-games/2021/04/15/game-developers-burnout-crunch-pandemic/>.
- <sup>21</sup> Greig de Peuter and Chris J. Young, "Contested Formations of Digital Game Labor," *Television and New Media* 20, no. 8 (2019): 747–55, <https://doi.org/10.1177/1527476419851089>; Dyer-Witthford and de Peuter, *Games of Empire*; Kerr and Kelleher, "The Recruitment of Passion and Community in the Service of Capital"; Mel Stanfill and Megan Condis, "Fandom and/as Labor," *Transformative Works and Cultures* 15 (2014), <https://doi.org/10.3983/twc.2014.0593>; Hector Postigo, "Video Game Appropriation through Modifications: Attitudes Concerning Intellectual Property among Modders and Fans," *Convergence* 14, no. 1 (2008): 59–74, <https://doi.org/10.1177/1354856507084419>; Julian Kücklich, "Precarious Playbour: Modders and the Digital Games Industry," *The Fibreculture Journal* 5, no. 1 (2005).
- <sup>22</sup> Chia, "The Moral Calculus of Vocational Passion in Digital Gaming."
- <sup>23</sup> Aphra Kerr and John D. Kelleher, "The Recruitment of Passion and Community in the Service of Capital: Community Managers in the Digital Games Industry," *Critical Studies in Media Communication* 32, no. 3 (2015): 179, <https://doi.org/10.1080/15295036.2015.1045005>.
- <sup>24</sup> Alison Harvey, "Becoming Gamesworkers: Diversity, Higher Education, and the Future of the Game Industry," *Television and New Media* 20, no. 8 (2019): 756–66, <https://doi.org/10.1177/1527476419851080>.
- <sup>25</sup> Ivan Barroso, "The Relation between Gamers Audiences and Gaming Industry Workforce," *International Journal of Film and Media Arts* 5, no. 1 (2020): 6–12, <https://revistas.ulusofona.pt/index.php/ijfma/article/view/7149>.
- <sup>26</sup> Dubois and Weststar, "Games-as-a-Service."
- <sup>27</sup> Suzanne Scott, "Fangirls in Refrigerators: The Politics of (in)Visibility in Comic Book Culture," *Transformative Works and Cultures* 13 (2013), <https://doi.org/10.3983/>

- twc.2013.0460; Michael Dittman, “Women in Refrigerators: The Growing Dialogue between Comic Creators and Fan Communities,” *Works and Days* 63–64, no. 1–2 (2014–15): 241–48; Emily Thomas, “Clawing through the Fourth Wall: Interactions between the Fans and Creators of MTV’s *Teen Wolf*,” *The Journal of Fandom Studies* 5, no. 1 (2017): 21–42, [https://doi.org/10.1386/JFS.5.1.21\\_1](https://doi.org/10.1386/JFS.5.1.21_1).
- <sup>28</sup> Annemarie Navar-Gill, “The Fan/Creator Alliance: Social Media, Audience Mandates, and the Rebalancing of Power in Studio–Showrunner Disputes,” *Media Industries Journal* 5, no. 2 (2018), <https://doi.org/10.3998/mij.15031809.0005.202>.
- <sup>29</sup> These citations are representative, not comprehensive, examples of fan studies’ interest in fan-creator relationships. Further, there are many limits to fan power; they cannot always influence creators, and some types of fans/behaviors are more supported than others (e.g., Suzanne Scott, *Fake Geek Girls: Fandom, Gender, and the Convergence Culture Industry* (New York, NY: New York University Press, 2019)).
- <sup>30</sup> Kyle Orland, “Why Linking Developer Bonuses to Metacritic Scores Should Come to an End,” *Ars Technica*, March 15, 2012, <https://arstechnica.com/gaming/2012/03/why-linking-developer-bonuses-to-metacritic-scores-should-come-to-an-end/>.
- <sup>31</sup> Kelly Bergstrom, “When a Door Becomes a Window: Using Glassdoor to Examine Game Industry Work Cultures,” *Information, Communication & Society* (2022): 1–16; O’Donnell, *Developer’s Dilemma*.
- <sup>32</sup> Hunter Mass, “A History of ‘Positive’ Review Bombing in Video Games,” *GameRant*, April 7, 2021, <https://gamerant.com/positive-review-bombing-history-video-games/>.
- <sup>33</sup> Caitlin Petre, Brooke Erin Duffy, and Emily Hund, “‘Gaming the System’: Platform Paternalism and the Politics of Algorithmic Visibility,” *Social Media + Society* 5, no. 4 (2019), <https://doi.org/10.1177/2056305119879995>.
- <sup>34</sup> These titles are in different genres marketed toward different audiences, an issue we address further below. However, few games are produced without crunch, limiting the potential cases we could study. Our publication matching approach tries to overcome some of these difficulties by sampling from comparable readerships, if not from similar games.
- <sup>35</sup> Alexander L. George and Andrew Bennett, *Case Studies and Theory Development in the Social Sciences* (Cambridge, MA: MIT Press, 2005).
- <sup>36</sup> Virginia Braun and Victoria Clarke, *Thematic Analysis: A Practical Guide* (London, UK: Sage Publications, 2021).
- <sup>37</sup> *Ibid.*; Lorelli S. Nowell et al., “Thematic Analysis: Striving to Meet the Trustworthiness Criteria,” *International Journal of Qualitative Methods* 16, no. 1 (2017): 1–13, <https://doi.org/10.1177/1609406917733847>.
- <sup>38</sup> *Ibid.*, 8.
- <sup>39</sup> Cote and Harris, “The Cruel Optimism of ‘Good Crunch.’”
- <sup>40</sup> Cote and Harris, “‘Weekends Became Something Other People Did.’”
- <sup>41</sup> Dan Royles, “Coin-Operated Boys: An Interview with Carly Kocurek,” *Nursing Clio*, June 13, 2017, <https://nursingclio.org/2017/06/13/coin-operated-boys-an-interview-with-carly-kocurek/>; Robin Johnson, “Hiding in Plain Sight: Reproducing Masculine Culture at a Video Game Studio,” *Communication, Culture & Critique* 7, no. 4 (2014): 578–94, <https://doi.org/10.1111/CCCR.12023>; Bulut, *A Precarious Game*, 105.
- <sup>42</sup> Weststar et al., “Developer Satisfaction Survey 2019.”

- <sup>43</sup> Dwyer Gunn, “What Caused the Decline of Unions in America?” *Pacific Standard*, April 24, 2018, <https://psmag.com/economics/what-caused-the-decline-of-unions-in-america>.
- <sup>44</sup> Cote and Harris, “The Cruel Optimism of ‘Good Crunch.’”
- <sup>45</sup> Jason Schreier, “Cyberpunk 2077 Publisher Orders 6-Day Weeks Ahead of Launch,” *Bloomberg*, September 30, 2020, <https://www.bloomberg.com/news/articles/2020-09-29/cyberpunk-2077-publisher-orders-6-day-weeks-ahead-of-game-debut>.
- <sup>46</sup> Jess Conditt, “‘Red Dead Redemption 2’: Separation of Crunch and Art,” *Engadget*, October 25, 2018, <https://www.engadget.com/2018-10-25-red-dead-redemption-2-review-crunch-rockstar.html>; Jason Schreier, *Blood, Sweat, and Pixels: The Triumphant, Turbulent Stories Behind How Video Games Are Made* (New York, NY: Harper, 2017); Schreier, “Cyberpunk 2077 Publisher Orders 6-Day Weeks Ahead of Launch.”
- <sup>47</sup> Cote and Harris, “The Cruel Optimism of ‘Good Crunch.’”
- <sup>48</sup> Bulut, *A Precarious Game*.
- <sup>49</sup> Peticca-Harris, Weststar, and Mckenna, “The Perils of Project-Based Work.”
- <sup>50</sup> Seifert, “Why We Can’t Afford to Crunch.”
- <sup>51</sup> Bulut, *A Precarious Game*.
- <sup>52</sup> Cote and Harris, “‘Weekends Became Something Other People Did’”; Cote and Harris, “The Cruel Optimism of ‘Good Crunch.’”
- <sup>53</sup> Harvey, “Becoming Gamesworkers.”
- <sup>54</sup> Chia, “The Moral Calculus of Vocational Passion in Digital Gaming.”
- <sup>55</sup> Bulut, *A Precarious Game*.
- <sup>56</sup> Duffy, (Not) *Getting Paid to Do What You Love*.
- <sup>57</sup> Chia, “The Moral Calculus of Vocational Passion in Digital Gaming”; Duffy, (Not) *Getting Paid to Do What You Love*.
- <sup>58</sup> Chia, “The Moral Calculus of Vocational Passion in Digital Gaming,” 768.
- <sup>59</sup> Enda Brophy and Grieg de Peuter, “Immaterial Labor, Precarity and Recomposition,” in *Knowledge Workers in the Information Society*, ed. Catherine McKercher and Vincent Mosco (Lanham, MD: Lexington, 2007), 177–92.
- <sup>60</sup> Duffy, (Not) *Getting Paid to Do What You Love*, 10.
- <sup>61</sup> Paul Hyman, “Unionize Now?” *Game Developer* 12, no. 3 (March 2005): 14–18; David Milner, “Game Workers Unite: The Fight to Unionize the Video Game Industry,” *Game Informer*, December 21, 2018, <https://www.gameinformer.com/2018/12/21/game-workers-unite-the-fight-to-unionize-the-video-game-industry>; Ruffino and Woodcock, “Game Workers and the Empire”; Jason Schreier, “Activision (ATVI) Union Formed by Raven Software QA Testers,” *Bloomberg*, January 21, 2022, <https://www.bloomberg.com/news/articles/2022-01-21/activision-employee-group-forms-union-a-first-in-video-games>; Weststar and Legault, “Building Momentum for Collectivity in the Digital Game Community.”
- <sup>62</sup> Kim Parker and Juliana Menasce Horowitz, “The Great Resignation: Why Workers Say They Quit Jobs in 2021,” Washington, DC, March 9, 2022, <https://www.pewresearch.org/fact-tank/2022/03/09/majority-of-workers-who-quit-a-job-in-2021-cite-low-pay-no-opportunities-for-advancement-feeling-disrespected/>.
- <sup>63</sup> Dubois and Weststar, “Games-as-a-Service.”

- <sup>64</sup> Olli Sotamaa, “Studying Game Development Cultures,” *Games and Culture* 16, no. 7 (2021): 835–54, <https://doi.org/10.1177/155554120211005242>; Anna M. Ozimek, “Outsourcing Digital Game Production: The Case of Polish Testers,” *Television & New Media* 20, no. 8 (2019): 824–35, <https://doi.org/10.1177/1527476419851088>; John Vanderhoef and Michael Curtin, “The Crunch Heard ‘Round the World: The Global Era of Digital Game Labor,” in *Production Studies: The Sequel*, ed. Miranda Banks, Bridget Conor, and Vicki Mayer (New York, NY: Routledge, 2015), 196–209.
- <sup>65</sup> Alice E. Marwick and Robyn Caplan, “Drinking Male Tears: Language, the Manosphere, and Networked Harassment,” *Feminist Media Studies* 18, no. 4 (2018): 543–59, <https://doi.org/10.1080/14680777.2018.1450568>.
- <sup>66</sup> Michael Sainato, “They Are Fed Up: US Labor on the March in 2021 after Years of Decline,” *The Guardian*, December 21, 2021, <https://www.theguardian.com/us-news/2021/dec/21/labor-organizing-pandemic-decline>.
- <sup>67</sup> Schreier, “Activision (ATVI) Union Formed by Raven Software QA Testers.”
- <sup>68</sup> Dubois and Weststar, “Games-as-a-Service.”

## Bibliography

- Amor, David. “Your Shameful Secret Addiction to Crunch.” Game Developers Conference, 2008. <https://www.gdcvault.com/play/330/Your-Shameful-Secret-Addiction-to>.
- Barroso, Ivan. “The Relation between Gamers Audiences and Gaming Industry Workforce.” *International Journal of Film and Media Arts* 5, no. 1 (2020): 6–12. <https://revistas.ulusofoa.pt/index.php/ijfma/article/view/7149>.
- Bergstrom, Kelly. “What Is Behind the (Glass)Door? Examining Toxic Workplace Cultures via an Employment Review Site.” *AoIR Selected Papers of Internet Research*, 2021. <https://doi.org/10.5210/SPIR.V2021I0.11871>.
- Bonds, Scott, Jamie Briant, Dustin Clingman, Hank Howie, Francois Dominic Laramee, Greg LoPiccolo, Andy Luckey, and Mike McShaffry. “Quality of Life in the Game Industry: Challenges and Best Practices.” 2004. [www.igda.org/qol](http://www.igda.org/qol).
- Braun, Virginia, and Victoria Clarke. *Thematic Analysis: A Practical Guide*. London, UK: Sage Publications, 2021.
- Brophy, Enda, and Grieg de Peuter. “Immaterial Labor, Precarity and Recomposition.” In *Knowledge Workers in the Information Society*, edited by Catherine McKercher and Vincent Mosco, 177–92. Lanham, MD: Lexington, 2007.
- Bulut, Ergin. *A Precarious Game: The Illusion of Dream Jobs in the Video Game Industry*. Ithaca, NY: ILR Press, 2020.
- Chia, Aleena. “The Moral Calculus of Vocational Passion in Digital Gaming.” *Television & New Media* 20, no. 8 (2019): 767–77. <https://doi.org/10.1177/1527476419851079>.

- Clayton, Natalie. "Telltale Co-Founder and Former CEO Kevin Bruner Calls Crunch a Necessary Evil." *PC Games Insider*, April 17, 2019. <https://www.pcgamesinsider.biz/news/68864/telltale-co-founder-and-former-ceo-kevin-bruner-calls-crunch-a-necessary-evil/>.
- Conditt, Jess. "'Red Dead Redemption 2': Separation of Crunch and Art." *Engadget*, October 25, 2018. <https://www.engadget.com/2018-10-25-red-dead-redemption-2-review-crunch-rockstar.html>.
- Consalvo, Mia. "Crunched by Passion: Women Game Developers and Workplace Challenges." In *Beyond Barbie and Mortal Kombat: New Perspectives on Gender and Gaming*, edited by Yasmin B. Kafai, Carrie Heeter, Jill Denner, and Jennifer Y. Sun, 117–90. Cambridge, MA: MIT Press, 2008.
- Cook, Daniel, Erin Hoffman, Hank Howie, and Peter Rukin. "IGDA: Working to Death - Game Developers and the Future of Work-Life Balance." Game Developers Conference, 2010. <https://www.gdcvault.com/play/1012695/IGDA-Working-to-Death-Game>.
- Cote, Amanda C., and Brandon C. Harris. "The Cruel Optimism of 'Good Crunch': How Game Industry Discourses Perpetuate Unsustainable Labor Practices." *New Media & Society* 25, no. 3 (2023): 609–627. <https://doi.org/10.1177/14614448211014213>.
- \_\_\_\_\_. "'Weekends Became Something Other People Did': Understanding and Intervening in the Habitus of Video Game Crunch." *Convergence* 21, no. 1 (2021): 161–76. <https://doi.org/10.1177/1354856520913865>.
- DePalma, Lindsay J. "The Passion Paradigm: Professional Adherence to and Consequences of the Ideology of 'Do What You Love.'" *Sociological Forum* 36, no. 1 (2021): 134–58. <https://doi.org/10.1111/SOCF.12665>.
- Deuze, Mark, Chase Bowen Martin, and Christian Allen. "The Professional Identity of Gameworkers." *Convergence* 13, no. 4 (2007): 335–53. <https://doi.org/10.1177/1354856507081947>.
- Dittman, Michael. "Women in Refrigerators: The Growing Dialogue Between Comic Creators and Fan Communities." *Works and Days* 63–64, no. 1–2 (2014–15): 241–48.
- Dubois, Louis Etienne, and Johanna Weststar. "Games-as-a-Service: Conflicted Identities on the New Front-Line of Video Game Development." *New Media & Society* 24, no. 10 (2022): 2332–2353. <https://doi.org/10.1177/1461444821995815>.
- Duffy, Brooke Erin. (Not) *Getting Paid to Do What You Love: Gender, Social Media, and Aspirational Work*. New Haven, CT: Yale University Press, 2017.
- Dyer-Witheford, Nick, and Greig S. de Peuter. "'EA Spouse' and the Crisis of Video Game Labour: Enjoyment, Exclusion, Exploitation, and Exodus." *Canadian Journal of Communication* 31, no. 3 (2006). <https://doi.org/10.22230/cjc.2006v31n3a1771>.
- \_\_\_\_\_. *Games of Empire: Global Capitalism and Video Games*. Minneapolis, MN: University of Minnesota Press, 2009.
- Frank, Allegra. "Rockstar Responds to Blowback over Red Dead Redemption 2 Team's '100-Hour' Workweeks." *Polygon*, October 15, 2018. <https://www.polygon.com/2018/10/15/17979818/red-dead-redemption-2-crunch-dan-houser-interview>.

- George, Alexander L., and Andrew Bennett. *Case Studies and Theory Development in the Social Sciences*. Cambridge, MA: MIT Press, 2005.
- Goldberg, Harold. "The Making of Rockstar Games' Red Dead Redemption 2." *Vulture*, October 14, 2018. <https://www.vulture.com/2018/10/the-making-of-rockstar-games-red-dead-redemption-2.html>.
- Good, Owen S. "Cyberpunk 2077 Still Needs Crunch Time to Complete, CEO Says." *Polygon*, January 18, 2020. <https://www.polygon.com/2020/1/18/21071895/cyberpunk-2077-delay-crunch-cd-projekt-red>.
- Gunn, Dwyer. "What Caused the Decline of Unions in America?" *Pacific Standard*, April 24, 2018. <https://psmag.com/economics/what-caused-the-decline-of-unions-in-america>.
- Harvey, Alison. "Becoming Gamesworkers: Diversity, Higher Education, and the Future of the Game Industry." *Television and New Media* 20, no. 8 (2019): 756–66. <https://doi.org/10.1177/1527476419851080>.
- Harvey, Alison, and Tamara Shepherd. "When Passion Isn't Enough: Gender, Affect and Credibility in Digital Games Design." *International Journal of Cultural Studies* 20, no. 5 (2017): 492–508. <https://doi.org/10.1177/1367877916636140>.
- Hoffman, Erin. "EA: The Human Story." Weblog post, November 10, 2004. <https://ea-spouse.livejournal.com/274.html>.
- Howie, Hank. "Making Great Games in 40 Hours Per Week." *Game Developer* 12, no. 1 (January 2005): 18–25.
- Hyman, Paul. "Unionize Now?" *Game Developer* 12, no. 3 (March 2005): 14–18.
- Johnson, Robin. "Hiding in Plain Sight: Reproducing Masculine Culture at a Video Game Studio." *Communication, Culture & Critique* 7, no. 4 (2014): 578–94. <https://doi.org/10.1111/CCCR.12023>.
- Kerr, Aphra. "The Culture of Gamework." In *Managing Media Work*, edited by Mark Deuze, 225–36. London, UK: Sage, 2011.
- Kerr, Aphra, and John D. Kelleher. "The Recruitment of Passion and Community in the Service of Capital: Community Managers in the Digital Games Industry." *Critical Studies in Media Communication* 32, no. 3 (2015): 177–92. <https://doi.org/10.1080/15295036.2015.1045005>.
- Kücklich, Julian. "Precarious Playbour: Modders and the Digital Games Industry." *The Fibre-culture Journal* 5, no. 1 (2005).
- Kuuttila, Miikka, Mika V. Mäntylä, Maëlick Claes, and Marko Elovainio. "Daily Questionnaire to Assess Self-Reported Well-Being during a Software Development Project." In *SEmotion '18: Proceedings of the 3rd International Workshop on Emotion Awareness in Software Engineering*, edited by Andrew Begel, Alexander Serebrenik, and Daniel Graziotin, 39–43. Seoul, Korea: IEEE Computer Society, 2018. <https://doi.org/10.1145/3194932.3194942>.

- Liao, Shannon. "A Year into the Pandemic, Game Developers Reflect on Burnout, Mental Health and Avoiding Crunch." *The Washington Post*, April 15, 2021. <https://www.washingtonpost.com/video-games/2021/04/15/game-developers-burnout-crunch-pandemic/>.
- Marwick, Alice E., and Robyn Caplan. "Drinking Male Tears: Language, the Manosphere, and Networked Harassment." *Feminist Media Studies* 18, no. 4 (2018): 543–59. <https://doi.org/10.1080/14680777.2018.1450568>.
- Mass, Hunter. "A History of 'Positive' Review Bombing in Video Games." *GameRant*, April 7, 2021. <https://gamerant.com/positive-review-bombing-history-video-games/>.
- Milner, David. "Game Workers Unite: The Fight to Unionize the Video Game Industry." *Game Informer*, December 21, 2018. <https://www.gameinformer.com/2018/12/21/game-workers-unite-the-fight-to-unionize-the-video-game-industry>.
- Navar-Gill, Annemarie. "The Fan/Creator Alliance: Social Media, Audience Mandates, and the Rebalancing of Power in Studio–Showrunner Disputes." *Media Industries Journal* 5, no. 2 (2018). <https://doi.org/10.3998/mij.15031809.0005.202>.
- Nishikitani, Mariko, Mutsuhiro Nakao, Kanae Karita, Kyoko Nomura, and Eiji Yano. "Influence of Overtime Work, Sleep Duration, and Perceived Job Characteristics on the Physical and Mental Status of Software Engineers." *Industrial Health* 43, no. 4 (2005): 623–29. <https://doi.org/10.2486/indhealth.43.623>.
- Nowell, Lorelli S., Jill M. Norris, Deborah E. White, and Nancy J. Moules. "Thematic Analysis: Striving to Meet the Trustworthiness Criteria." *International Journal of Qualitative Methods* 16, no. 1 (2017): 1–13. <https://doi.org/10.1177/1609406917733847>.
- O'Donnell, Casey. *Developer's Dilemma: The Secret World of Videogame Creators*. Cambridge, MA: MIT Press, 2014.
- Orland, Kyle. "Why Linking Developer Bonuses to Metacritic Scores Should Come to an End." *Ars Technica*, March 15, 2012. <https://arstechnica.com/gaming/2012/03/why-linking-developer-bonuses-to-metacritic-scores-should-come-to-an-end/>.
- Owens, Tyler @heytredd. "Tyler Owens 🗣️ 📶 on Twitter: 'I Wish Gamers Would Get as Upset about Crunch, Layoffs, the Mistreatment of Women and POC Devs, Etc. and Rally around It Half as Well as They Do about in-Game Features like Microtransactions or Aim Assist.'" Twitter, February 5, 2022. <https://twitter.com/heytredd/status/1490067427014504448>.
- Ozimek, Anna M. "Outsourcing Digital Game Production: The Case of Polish Testers." *Television & New Media* 20, no. 8 (2019): 824–35. <https://doi.org/10.1177/1527476419851088>.
- Parker, Kim, and Juliana Menasce Horowitz. "The Great Resignation: Why Workers Say They Quit Jobs in 2021." Washington, DC, March 9, 2022. <https://www.pewresearch.org/fact-tank/2022/03/09/majority-of-workers-who-quit-a-job-in-2021-cite-low-pay-no-opportunities-for-advancement-feeling-disrespected/>.
- Peticca-Harris, Amanda, Johanna Weststar, and Steve Mckenna. "The Perils of Project-Based Work: Attempting Resistance to Extreme Work Practices in Video Game Development." *Organization* 22, no. 4 (2015): 570–87. <https://doi.org/10.1177/1350508415572509>.

- Petre, Caitlin, Brooke Erin Duffy, and Emily Hund. “‘Gaming the System’: Platform Paternalism and the Politics of Algorithmic Visibility.” *Social Media + Society* 5, no. 4 (2019). <https://doi.org/10.1177/2056305119879995>.
- Peuter, Greig de, and Chris J. Young. “Contested Formations of Digital Game Labor.” *Television and New Media* 20, no. 8 (2019): 747–55. <https://doi.org/10.1177/1527476419851089>.
- Postigo, Hector. “Video Game Appropriation through Modifications: Attitudes Concerning Intellectual Property among Modders and Fans.” *Convergence* 14, no. 1 (2008): 59–74. <https://doi.org/10.1177/1354856507084419>.
- Royles, Dan. “Coin-Operated Boys: An Interview with Carly Kocurek.” *Nursing Clio*, June 13, 2017. <https://nursingclio.org/2017/06/13/coin-operated-boys-an-interview-with-carly-kocurek/>.
- Ruffino, Paolo, and Jamie Woodcock. “Game Workers and the Empire: Unionisation in the UK Video Game Industry.” *Games and Culture* 16, no. 3 (2021): 317–28. <https://doi.org/10.1177/1555412020947096>.
- Sainato, Michael. “‘They Are Fed Up’: US Labor on the March in 2021 after Years of Decline.” *The Guardian*, December 21, 2021. <https://www.theguardian.com/us-news/2021/dec/21/labor-organizing-pandemic-decline>.
- Sandoval, Marisol. “From Passionate Labour to Compassionate Work: Cultural Co-Ops, Do What You Love and Social Change.” *European Journal of Cultural Studies* 21, no. 2 (2018): 113–29. <https://doi.org/10.1177/1367549417719011>.
- Schreier, Jason. *Blood, Sweat, and Pixels: The Triumphant, Turbulent Stories Behind How Video Games Are Made*. New York, NY: Harper, 2017.
- \_\_\_\_\_. “As Cyberpunk 2077 Development Intensifies, CD Projekt Red Pledges to Be ‘More Humane’ to Its Workers.” *Kotaku*, May 17, 2019. <https://kotaku.com/as-cyberpunk-2077-development-intensifies-cd-projekt-r-1834849725>.
- \_\_\_\_\_. “Cyberpunk 2077 Publisher Orders 6-Day Weeks Ahead of Launch.” *Bloomberg*, September 30, 2020. <https://www.bloomberg.com/news/articles/2020-09-29/cyberpunk-2077-publisher-orders-6-day-weeks-ahead-of-game-debut>.
- \_\_\_\_\_. “Activision (ATVI) Union Formed by Raven Software QA Testers.” *Bloomberg*, January 21, 2022. <https://www.bloomberg.com/news/articles/2022-01-21/activision-employee-group-forms-union-a-first-in-video-games>.
- Scott, Suzanne. “Fangirls in Refrigerators: The Politics of (in)Visibility in Comic Book Culture.” *Transformative Works and Cultures* 13 (2013). <https://doi.org/10.3983/twc.2013.0460>.
- \_\_\_\_\_. *Fake Geek Girls: Fandom, Gender, and the Convergence Culture Industry*. New York, NY: New York University Press, 2019.
- Seifert, Coray. “Why We Can’t Afford to Crunch: The Business Sense Behind Good Quality of Life.” Game Developers Conference, 2013. <https://www.gdcvault.com/play/1017826/Why-We-Can-t-Afford>.

- Sotamaa, Olli. "Studying Game Development Cultures." *Games and Culture* 16, no. 7 (2021): 835–54. <https://doi.org/10.1177/15554120211005242>.
- Stanfill, Mel, and Megan Condis. "Fandom and/as Labor." *Transformative Works and Cultures* 15 (2014). <https://doi.org/10.3983/twc.2014.0593>.
- Thomas, Emily. "Clawing through the Fourth Wall: Interactions between the Fans and Creators of MTV's Teen Wolf." *The Journal of Fandom Studies* 5, no. 1 (2017): 21–42. [https://doi.org/10.1386/JFS.5.1.21\\_1](https://doi.org/10.1386/JFS.5.1.21_1).
- Vanderhoef, John, and Michael Curtin. "The Crunch Heard 'Round the World: The Global Era of Digital Game Labor." In *Production Studies: The Sequel*, edited by Miranda Banks, Bridget Conor, and Vicki Mayer, 196–209. New York, NY: Routledge, 2015.
- Walker, Del @TheCartelDel. "AKA Bruce Leeroy on Twitter: 'Gamers: 'Gamedevs Are Lazy Nowadays. Nobody Ends Up in Hospital from Overtime' Lol Here's Me in Hospital after Collapsing from GameDev Burnout before the Dr Explained My 'Blood Is Flooded with Lactate from Prolonged Stress' She Then Asked If I'm in the Military. A Thread! 🧵1/5 Hhttps://T.Co/VtvIt6zb9F'/Twitter." Twitter, August 23, 2022. <https://twitter.com/TheCartelDel/status/1562037522598924293>.
- Weststar, Johanna, Shruti Kumar, Trevor Coppins, Eva Kwan, and Ezgi Inceefe. "Developer Satisfaction Survey 2021: Summary Report." September 13, 2021. <https://igda.org/resources-archive/developer-satisfaction-survey-summary-report-2021/>.
- Weststar, Johanna, Eva Kwan, and Shruti Kumar. "Developer Satisfaction Survey 2019: Summary Report." November 20, 2019. [https://igda-website.s3.us-east-2.amazonaws.com/wp-content/uploads/2020/01/29093706/IGDA-DSS-2019\\_Summary-Report\\_Nov-20-2019.pdf](https://igda-website.s3.us-east-2.amazonaws.com/wp-content/uploads/2020/01/29093706/IGDA-DSS-2019_Summary-Report_Nov-20-2019.pdf).
- Weststar, Johanna, and Marie-Josée Legault. "Why Might a Videogame Developer Join a Union?" *Labor Studies Journal* 42, no. 4 (2017): 295–321. <https://doi.org/10.1177/0160449X17731878>.
- \_\_\_\_\_. "Building Momentum for Collectivity in the Digital Game Community." *Television and New Media* 20, no. 8 (December 1, 2019): 848–61. <https://doi.org/10.1177/1527476419851087>.
- Woodcock, Jamie. "How to Beat the Boss: Game Workers Unite in Britain." *Capital & Class* 44, no. 4 (December 12, 2020): 523–29. <https://doi.org/10.1177/0309816820906349>.
- Wright, Thomas A., and Russell Cropanzano. "Psychological Well-Being and Job Satisfaction as Predictors of Job Performance." *Journal of Occupational Health Psychology* 5, no. 1 (2000): 84–94.