Studying Game Development Cultures

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Abstract

By analyzing and contextualizing different aspects of the Finnish game development scene, this article provides concrete examples of why we need cultural studies of game development and how game development cultures can be studied. The article follows a three-layer approach, first exploring some of the historical and political developments that have shaped forms of local game production. Second, a focus is placed on working cultures within the industry and attitudes toward crunch time, work–life balance, and workplace regulation. Third, everyday strategies of organizing creative work are analyzed to better understand game studio cultures. The lessons from this empirical study directly contribute to the larger scholarly discussions around game production and creative labor.

Keywords

game culture, game development, game development culture, game industry, contextual analysis

Introduction

When I started to interview Finnish game industry professionals several years ago, one of the things I always asked about was their weekly working hours. This was just a routine "warm-up" question, but I remember being somewhat surprised when the first three interviewees all told me that they worked 37.5 hours per week. Based on informal discussions in local game developer meetings and other industry events, I knew that many game makers had a passionate relationship with their work and many

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of them seemed to really enjoy hanging out at the studio. I was also aware that year after year, international game industry surveys reported long hours and unpaid overtime as persistent issues for the video game industry. When I interviewed more developers, the answers started to vary. Some people surely worked longer hours, but quite often I found myself talking about a 37.5 hour work week. In a way, this article is a very long answer to my confusion around this issue. By analyzing and contextualizing different aspects of local game maker practices, this article tries to tease out the complexities and layers of what I call "game development cultures."

In Global Games, Aphra Kerr claims that scholarship focusing on the digital game industry is urgently needed due to "the relative lack of attention in media and cultural studies to the digital games industry, and the lack of attention in game studies to production and circulation issues" (Kerr, 2017, p. 199–200). While nuanced empirical studies of the game industry are still scarce, scholars like O'Donnell (2014) and Whitson (2020) have highlighted how in-depth accounts of game development practices can make crucial contributions to the field of game studies. In addition, as Brendan Keogh (2019, p. 3) has importantly argued, our conceptions of game development and other related activities can have "tangible ramifications on government funding models, game development education curriculums, and the canonization or marginalization of different genres and communities."

The digital game industry has actively internationalized its production networks in the past decade. This does not, however, mean that local characteristics would fade away in any simple manner. Instead, networks of production and distribution get shaped and territorialized by regional factors (Kerr & Cawley, 2012). Accordingly, both Kerr (2017) and Parker and Jenson (2017) argue that examining local and regional contexts of game production is often revealing, and perhaps our best way to begin to untangle the complexities of the global game industry.

Returning to the issue of working hours, it is useful to understand that a parliament-approved Working Hours Act provides the general framework for the hours used to perform work in Finnish workplaces. The exact working hours are agreed in an employment contract, and the most common office working hours are 7.5 hours a day, resulting in 37.5 hours a week. One can assume that this is the source of the widespread awareness of required working hours. At the same time, given how common overtime is in creative industries, this does not explain why the developers I interviewed kept on repeating the same figures.

In order to avoid simplifications when exploring the local game production scene, this article will argue for a contextualizing approach to game development cultures. It turns our attention to meanings, identities, and framings within game development and underlines the importance of exploring the traditions, regulations, practices, and environments of game making. A contextualizing approach aims at building a midrange analysis falling somewhere between organizational ethnography and political economy and integrating observations from both the studio floor and from critical readings of the dynamics of the global game industry. Drawing from in-depth interviews conducted between 2011 and 20, observations in game studios and game

industry events, industry reports, and popular media articles, this article explores the characteristics of a specific North European game development environment. While our previous contributions (e.g., Jørgensen, Sandqvist, & Sotamaa, 2017; Sotamaa, Tyni, Toivonen, Malinen, & Rautio, 2011; Tyni & Sotamaa, 2014) have explored particular aspects of this scene, this article aims at synthesizing some of the lessons learned from this project. While Finland is arguably a small node in the global circuits of game production, with over 200 studios and around 3000 employees, the Finnish game industry has produced several internationally recognized titles such as Rovio's *Angry Birds* or Supercell's *Clash of Clans* and has become a key node of the vibrant local start-up scene in the past decade. In this respect, the lessons taken from the Finnish game development culture are timely and will contribute to the larger scholarly discussions around game cultures and creative work.

This article begins by explaining what can be achieved with a cultural approach to game production. After this, the different layers of game development cultures are unwrapped. First, we discuss the local and regional aspects of game making, and how, for example, historical and political developments can shape game development cultures. Second, we take a look at the working cultures within the industry by discussing issues such as crunch time, precariousness, and work–life balance. Third, we move on to explore studio cultures, placing a focus on individual companies and developers, and the circumstances in which they contribute to creating everyday game development cultures.

A Contextualizing Approach to Game Development Cultures

When discussing the core definitional areas of game studies, the cultures of game making have been mostly absent. In the unifying models describing the key research subjects of the field, the role reserved for the creation and production of games has been fairly limited, mostly highlighting either the importance of "game design" (Björk, 2008) or discussing the modes of game production only among other contextual factors (Mäyrä, 2009). While a long list of practical game development manuals and reports from prototype-based projects exists, there are still significant gaps in our understanding of everyday game development and the different contextual layers that shape these environments and activities.

There are good reasons to argue that most of the descriptions of "culture" employed in early 2000s game scholarship were limited to mainly symbolic or semiotic accounts (Boellstorff, 2006, p. 30–32). Alongside the formal exploration of games as texts and systems, culture was also connected to the playing situation and player cultures around games (Salen & Zimmerman, 2004; Taylor, 2006). If, however, we believe that a useful definition of culture for game studies would include at least "the production of symbolic meanings as well as material production and processes of development" (Crawford & Rutter, 2006, p. 148), we need to consider the different contexts in which games have meaning placed on them. As I have previously

suggested (Sotamaa, 2009, p. 55), "it is not only the player's cultures that shape games but it is at least equally important to examine the influence of different industrial cultures of design, production, and distribution."

Some early examples of exploring the connection between game production and the study of culture do, however, exist. Kline, Dyer-Witheford and de Peuter (2003) discussed the interactions between the circuit of culture and the other two circuits of technology and marketing in the context of the global game industry. Kerr (2006) showed how the connections between business and the culture of games can be studied by analyzing digital games as a cultural industry, and also the cultures of production within the industry. However, it is clear that while the video game industry has received increasing scholarly attention in the past decade, the book-length academic volumes (e.g., Bulut, 2020; Conway & deWinter 2015; Fung, 2016; Kerr, 2017; O'Donnell, 2014; Ruggill et al., 2017; Zackariasson & Wilson, 2012) have still given limited attention to cultural aspects.

If we agree that game making can and needs to be studied as "culture," we then need to employ a specific understanding of culture. But instead of seeing culture as a distinct field, we should rather consider culture as an aspect that is attached to various kinds of activities and practices. Shaw (2010, p. 416) has importantly shown how instead of focusing on video games "as culture," there are good reasons to look at games "in culture." Thus, instead of analyzing games as something distinct from a constructed mainstream culture, we should put emphasis on understanding how the different contextual frames shape our understanding of games. Extending this idea to industrial production cultures, Johnson (2014, p. 84) has argued that exploring design and development activities "might be conceived less as study of a bounded subculture and more in terms of forces outside of the industry that respond to deep texts, and in that way contribute to the process of framing the culture of production."

Accordingly, a contextualizing approach aims at placing the studied phenomenon within its larger setting, and instead of looking at games or their design "as such," we explore the traditions, conventions, and practices around them and the cultural, social, and historical environments in which they originate. A contextualized reading of game development cultures would then necessitate connecting individual developer experiences to larger trends within global game production networks, taking into account recent conditions of creative labor and any regional particularities of game development scenes. As Banks, Conor, and Mayer (2015, p. x) point out, a cultural approach to production can take into account "this tension between individuals' agency and the social conditions within which agency is embedded. Rather than reify the binary of singular creativity against structural constraints, the idea of production cultures allows for a more coherent examination of producers as they work, live, and organize together." We will begin to build this contextual framework by briefly discussing selected historical aspects of the Finnish game industry.

Formation of the Finnish Game Industry

If the academic study of game industry was once mostly focused on the key international hubs of game development (Kerr & Cawley, 2012), carefully crafted studies of regional game development cultures have appeared during the past few years. Studies of national game development histories (Banks & Cunningham, 2016; Sandqvist, 2012; Švelch, 2018) and regional specificities associated with game production (Parker & Jenson, 2017) have shown how contextual factors always affect the evolution of local game industries. Since the European game industry "constitutes of highly diverse regions, each differing in market size, demographics, local development communities, and national creative industries–related policy development" (Nieborg & de Kloet, 2016), more detailed situated studies are urgently needed (Meda-Calvet, 2016; Ozimek, 2019).

While the history of Finnish computer games can be traced back to the very first computers in the country, commercial video games started to appear in the 1980s, and the first game development firms were formed in the 1990s (Saarikoski & Suominen, 2010). Most of the early games were designed by young "bedroom coders" and many of the first game companies had their connections to the demoscene, a computing subculture of the time (Jørgensen et al., 2017). On the global scale, Finland is a small country and a significant domestic market for video games has never existed. In 2018, over 98% of the combined game industry revenue was gained from outside the domestic market (Neogames, 2019). While other cultural industries in Finland still address local audiences, most game companies have been forced to design their products for international markets. Since local companies do not operate in the same tiny market, it has been documented that they do not primarily see each other as competitors, but instead actively collaborate and share information with each other (Komulainen & Sotamaa, 2020; Lappalainen, 2014; Lehtonen, Ainamo & Harviainen, 2019).

Although *Max Payne*, developed by Remedy Entertainment for PC and quickly ported to consoles, was the first major international hit coming out from the country, Finland has never hosted a strong AAA industry. The majority of the studios have always been small, and due to limited resources, alternative routes and emerging platforms have been actively explored (Sotamaa, 2020). While the new paradigm of a global game industry based on mobile platforms and digital distribution services started to emerge around a decade ago, many Finnish developers had already been working on mobile games for years. The traditional game publishing model favored established companies with a certain turnover and relied on proprietary development tools, but new venues offered more opportunities for smaller games and encouraged developers to move from creating "fire and forget" commodities to nurturing long-lasting services (Sotamaa & Karppi, 2010).

The reasons for the early mobile focus can be tracked back at least to the late 1990s. With the rise of the mobile phone giant Nokia, Finland quickly grew into one of the leading producers of information and communication technologies. According to

WIRED, "by 2000, Nokia accounted for a mind-boggling 4% of Finnish GDP, 70% of Helsinki's stock exchange market capital, 43% of corporate R&D, 21% of total exports, and 14% of corporate tax revenues" (Kelly, 2013). Nokia's success was facilitated by significant state investments in R&D, telecommunication infrastructure, and tailored education. The company acted as a global forerunner for other Finnish firms, helped to develop the country's innovation system, provided significant tax revenue, and created a steady demand for highly skilled workers (Moen & Lilja, 2005; Ali-Yrkkö & Hermans, 2004; Oinas, 2005).

At the turn of the millennium, there were already a handful of independent Finnish studios developing mobile games. Nokia had introduced Snake to their phones in 1997, and started to invest on gaming over the mobile networks. While WAP (Wireless Application Protocol) was far from ideal platform for game development and distribution channels hardly existed, the early mobile phone games still expanded the notion of digital gaming (Kuorikoski, 2014, p. 125–129). The burst of the dot-com bubble brought the short-lived WAP hype to an end, and lavishly handed out venture capital practically vanished overnight. At the same time, Nokia kept investing in mobile games as they already had their N-Gage gaming phone in the pipeline. This situation had an impact on the direction of the regional game development scene as a whole. In the words of Kuorikoski (2014, p. 141):

> "The investment drought meant that mobile game development and smaller companies were more likely to survive. The bar to develop was low, largely thanks to mobile phones' modest processing performance and the small overhead required to create games for such devices. Nokia's role with the N-Gage was a clear advantage to studios whose projects were well-resourced and financed."

Nokia wanted to quickly generate a large portfolio of games for their new platform, and several local studios were hired to fulfill that objective. In the end, Nokia's N-Gage console, launched in 2003, was not exactly a success story. Although Nokia spent significant resources on marketing, the device mostly failed to find its audience. Still, Nokia's involvement in the game industry created an environment in which mobile games were seen as a viable alternative. For many small companies and individual developers, this period provided an opportunity to learn new skills and find a new orientation.

Encouraged by the success of Nokia, the national R&D funding organization *Tekes* (*Teknologian kehittämiskeskus*) invested more funds into information and communication technologies, and some of the pioneering game studios like Housemarque and Remedy were able to acquire funding for their early technology-oriented projects (Kuorikoski, 2014, p. 397). The role of state funding for game development started to increase in the new millennium, and for many small game studios, both Tekes-funded projects and collaborations with Nokia served as important cooperation platforms that not only provided a chance to learn new skills but also promoted a more professional and inherently international way of working. In recent years, state funding has also

been increasingly utilized to leverage venture capital investments (Sotamaa, Jørgensen, & Sandqvist, 2019).

The path from early mobile games to the globally recognized success stories of the 2010 is obviously far from straightforward. However, it is worth noticing that many of the key people were exploring the possibilities of mobile games years before the launch of the iPhone and App Store. This is nicely illustrated in a *Pelit* magazine article from 2005 (Figure 1) that tells the story of Sumea, a mobile game company launched in 1999 and later sold to Trip Hawkins' Digital Chocolate. In the pictures introducing the key members of the team, we can find: (1) Ilkka Paananen, currently the CEO of Supercell; (2) Jami Laes, who later served as the executive vice president of Rovio; and (3) Petri Ikonen, the creative director of EA's mobile studio in Helsinki.

Altogether, this example highlights how mobile game production networks had already become territorialized before the rise of the current mobile publishing and distribution ecosystems. According to Latorre (2013), the European video game industry has never been supported by significant local hardware platforms or major

Figure 1. The Sumea mobile game studio introduced in Pelit magazine (2005:6-7, pp. 38-39).

publishers. In the early 2000s, small Finnish developers often found it difficult and time-consuming to access the publishing and distributing channels ruled by the major industry players from physically far away locations. However, in Nokia, Finnish development studios actually had a global publisher next door, and while only selected studios worked directly for Nokia, one can see how the regional development culture became tied to particular technological and economical platforms.

So far, we can see that the modes of game development adopted in Finland have been shaped, for example, by the small size of the domestic market, the active networking within hobbyist cultures, and positive attitudes toward information technology. The nonexistence of large-scale AAA "factories" has contributed to the overall atmosphere of the national development scene. While Finland surely hosts quite a few game development programs (Albiin & Casén, 2017), they do not provide a constant oversupply of young developers, meaning that companies actually need to take good care of their existing employees.

Working Culture within the Game Industry

As mentioned at the beginning of the article, there are particular concerns raised related to the quality of life in the game industry. Overall, creative work environments simultaneously include elements of privilege and struggle (Banks et al., 2015). As already Kline et al. (2003, p. 199) argued, the game industry can be seen as "a central arena for experimentation in teamwork, charismatic leadership, ultraflexible schedules, open-space work areas, flattened hierarchies, stock options, and participative management." At the same time, professional game development is oftentimes seen an industry of passion that necessitates sacrifices from its employees. According to Kirkpatrick (2013, p. 108), "workers often come to realize that their collective investment in, even love of, games and gaming, places them at a disadvantage when it comes to negotiating terms and conditions."

The Developer Satisfaction Survey of the International Game Developers Association (IGDA) indicates that long hours, crunch time, and unpaid overtime are persistent issues for the global video game industry (Weststar, Kwan & Kumar, 2019). While just over half of the employees (54%) who answered the survey worked 40–44 hours per week, 19% reported working more hours on a regular basis. In addition, over three quarters of the participants reported that their job sometimes either involved crunch time or other periods of long or extended hours. During structural overtime periods, over 70% of the respondents reported working 50 hours or more per week. When employees worked beyond normal office hours, 34% received no additional compensation at all, and only 8% received fully paid overtime.

While no similar large-scale studies about the Finnish game industry employees can be found, combining different data sources can help provide at least a preliminary picture of the situation. In a survey conducted by Game Makers of Finland, 44% of the participants reported that they do not work overtime, and over half of the respondents said that they have never crunched (Pennanen, 2019). It is clear that Finnish

developers are also well aware of the demanding nature of the game industry, although the average working hours, especially during crunch periods, appear to be more levelheaded (Roininen, 2013). This is in line with the general working culture in Finland, where in contrast to the 11% of employees reported to work very long hours (50 hours or more a week on average) in OECD countries, less than 4% of Finnish employees exceed the 50-hour mark (OECD, 2020). Overall, working hour legislation requires Finnish employers to maintain up-to-date records about employees' work time, including registering and compensating overtime. While there are surely differences in how companies carry out these duties, the culture around crunch is worth exploring in a bit more detail.

In their study of game industry working conditions, Vanderhoef and Curtin (2015, p. 203) argue that "[w]hile nobody denies crunch time is bad for the health and morale of game workers, few studios have eliminated the practice entirely." At the same time, there are many high-profile Finnish studios that actively advertise a clear no-crunch policy. While this is obviously part of their PR and a viable strategy for creating a competitive edge in recruitment, it also forces other companies to evaluate their practices.

> *"Once you have a reasonable number of tasks and they are scheduled wisely, you can easily leave the office at five, go home and spend your time doing something else. [--] In my first project [at this studio], the boys almost insisted on having crunch, but they were told [by the CEO] that there's nothing to do here–go home and have a sleep. [--] Of course I've heard all these stories–I call them Winter War stories [refers to the war between Finland and the Soviet Union in 1939-40] – about sleeping weeks on the studio floor and so on. They try to make it sound heroic, but it's really only about bad management"* (Emma, Game Designer).

Similar to probably any other place worldwide, founders often work long days in Finnish start-ups. There are also freelancers, interns, and other people on short contracts who may have little power over their working time and conditions. However, as Emma's example indicates, some of the developers can choose to have a 9-to-5 job in a game company.

The changing role of crunch is also connected to industry-wide transformations in the production networks. In an environment dominated by mobile game developers, publishers play a significantly smaller role, and thereby, the structural crunch created by publisher-set schedules and milestones is not as common as it often is in AAA productions. At the same time, many of the responsibilities traditionally associated with the publisher are now handled inside the company (Tyni, 2020). The changing organization of work can also mean that certain phases of individual game projects can be more demanding than others, and that differences in workload can appear between development team roles.

The launch of the game was rather demanding for our server-side coders. They practically had to be prepared around the clock to make sure that nothing crashes and we don't screw up the launch. [--] Naturally they took days off once the situation was over. We always try to compensate it [--] as we don't want any burn-outs here (Toni, Operations Manager).

Given the current service nature of games, they run constantly online and are frequently updated (Sotamaa & Karppi, 2010; Švelch, 2019). Therefore, developers easily accrue responsibilities that extend beyond the traditional working hours spent at the studio.

I often take the latest version of our game [--] and play half an hour late at night. Or then it just runs here on my iPad and sometimes I check out things from it. I do this also on weekends, check out that we have certain analytics in place. In fact, it is my indirect responsibility to check that the game runs as planned also during weekends (Henry, Producer).

This is a prime example of "professional presence bleed" (Gregg, 2011), which reflects the ways in which advanced online technologies allow work to increasingly invade spaces and times that were previously mostly detached from work-related activities. At the same time, the quote from Henry highlights how a simple question about working hours cannot capture the nuances of when and how game developers work, or how they perceive the very idea of "work time."

While working in the game industry is often found to be demanding and hectic, Finnish game industry representatives still report relatively high work–life balance rates (Nahkamäki, 2015). Finland follows a welfare state model in which citizens are entitled to a fairly large set of government supported services, ranging from education, health care, social security, and social care. In this respect, the work–life balance is obviously a combination of government support systems and particular company policies—for example, flexible working hours and remote working initiatives. Tero highlighted this nicely when talking about a case in which he had recently changed to a new company before spending a period on a paternity leave.

"I was a little nervous when I went to ask for the parental leave. But the reception was very positive. [--] I spent half a year at home. [--] When I went back it took some time to get back to pace. But then I got a promotion very quickly after I had returned to work. All of a sudden I had much more responsibility. I guess it went well in that sense" (Tero, QA & Deployment Specialist).

First, we need to understand that Finns are entitled to state-subsidized parental leave. At the same time, and perhaps even more importantly, it is central that the working culture also encourages people to use their leave. Issues like free education and affordable and trustworthy childcare are obviously a crucial part of the work–life

balance for workers who have children. At the same time, as often highlighted by leading game industry figures, (Savonen, 2018) things like the highly rated free educational system and the overall safety of society are some of the central selling points when recruiting foreign experts to Finnish companies. While the influences of Finnish work culture may not always be direct, it is clear that there are many interesting connections between the Nordic welfare model and the evolution of the game industry in this area (see Jørgensen et al., 2017: Sotamaa et al., 2019).

While Finnish game developers often like to keep up the image of a tight community in which tips and tricks are openly shared, similar to game workers worldwide, they have often been indifferent to unionization. Romanticized notions of creative work and the entrepreneurial rhetorics around game development have often disdained unions as remnants of an industrial past. In the US context, the lack of unionization has, for example, meant that unpaid overtime has remained largely unchallenged on a collective level, and that project-based employment contracts rarely provide health and retirement benefits (Vanderhoef & Curtin 2015, p. 199). In the Finnish work life, unions have traditionally played an important role. In 2018, over 70% of all wage and salary earners were members of a trade union, and almost another 20% belonged to an unemployment fund (Findikaattori, 2019). While no exact statistics are available for the unionization level of Finnish game industry representatives, there are good reasons to believe that it is significantly lower than the national wage earner average. One of the reasons informants mentioned in their interviews was the lack of a credible games-specific union.

> I belong to an employment fund. I haven't found it necessary to join a trade union as it is difficult to specify which union would suit me. I don't feel like giving a percentage of my wages since I don't really trust that they represent me. It's simpler to just join an employment fund. If I get fired I still get a proper compensation (Paula, game designer).

As Woodcock (2020) has pointed out, established trade unions have traditionally shown little interest in game workers. Game developers seldom have a long history of trade unionism, and existing trade unions may struggle to relate to the forms of cultural production they represent. Although Game Makers of Finland (an interest group operating under the Union of Professional Engineers) was founded in 2017, the need for a radical local labor movement seems relatively small, and recent bottom-up unionization initiatives like Game Workers Unite have not gathered momentum in Finland. One way to interpret this is to argue that general workplace regulation including one of the strongest employment protection legislations in the world seems to promise enough protection for many game industry employees. One can also speculate that the absence of an obvious enemy—for example, a local large-scale studio with a history of systematic malpractice—has had an impact on the overall attitudes toward unionization.

Altogether, strong employment regulation seems to shape the Finnish game industry working culture. But at the same time, individual companies next door to each

other can have very different cultures. In the following section, we will examine some of the material and organizational aspects of game studios more closely.

Cultures In and Out of the Studio

As Ashton and Giddings (2018) have pointed out, play and place often become inseparable in the discourses of the new economy that raise play as a central aspect of entrepreneurship and innovation. When "culture" is discussed in major international game developer events like the annual Game Developers Conference (GDC), the speeches often focus on creating and nurturing "studio cultures." Accordingly, scholars like O'Donnell (2014) and Whitson (2020) have argued for "studio studies" as ethnographic approaches that can capture the situated contexts of game development and the messy realities from the studio floor. While it is clear that not all developers work in game companies, studios offer fruitful hubs for the study of development cultures.

When game companies are covered in popular media, journalists often highlight the relaxed elements visible in the studios. These can range from football tables and board games to free drinks and pizzas, and they all participate in creating an alluring and cool image of the game industry. While this playfulness tends to be quite superficial, playing games together often has an important role as it can help in team building, creating mutual trust, and learning from each other (Sotamaa, 2021). Accumulating a shared vocabulary or "game talk" (O'Donnell, 2009) can help team members with different backgrounds bond and communicate more efficiently. At the same time, relying on specific ways of understanding games that require extensive personal experience can also serve to exclude. This is also connected to the gendered division of labor within game studios, where traditional development positions like programming and game design are usually dominated by men, whereas other roles like marketing, community management, or HR often have a more equal gender division (Deuze, Martin, & Allen, 2007; Kerr & Kelleher, 2015). In 2018, the share of female employees in the Finnish game companies was reported to be around 20% (Neogames, 2019).

As the Finnish game industry consists mostly of small- and medium-sized studios, flat organizational structures are commonplace. This is in line with the overall workplace culture, as Finland has repeatedly ranked among the top 10 nations when measuring a "willingness to delegate authority" at work (Schwab, 2019). There seemed to be a wide consensus that while workplace cultures can and need to be consciously shaped, they cannot be dictated, but instead need to be created collectively. Often this process can begin from simple mundane activities.

> *One of the studio manager tasks is to organize the everyday processes. If there's, for example, some cleaning to do, and not everyone takes care of it, you need to show example. Then people learn that they can do it as well. And you can do simple things, load a dishwasher and so on. [--] This is the way culture is created, people begin to do*

things. You don't need to ask every time or make it someone's responsibility. [--] But these are not things you can define in a meeting, it's about doing it, every day (Otto, Studio head).

All in all, making digital games is a complex combination of creative crafting, cultural production, and software development. When talking to people responsible for running studios, it often came up that they did not perceive their job to be only about optimizing processes and efficiency, but more about creating a favorable atmosphere and managing messy social entanglements.

If we talk about the work environment [--], it's not only about work. [--] Team work is not only about creating a task list and then executing the tasks. [--] It is not only about me paying your wages and you implementing these plans. You need to meet the individuals differently. Maybe it is the organicity that I'm looking for. If people find similar kinds of things from each other and can teach new things to each other, it strengthens the bonds that are always needed in creative work (Toni, Operations manager).

Nurturing an environment in which experts of different fields can get along and collaborate requires active engagement. Finding the right balance can take time, and therefore, working conditions are also often connected to the lifecycle of the company. For example, in the early phases of a company, the combination of excitement and limited experience can easily overrun good intentions.

We had a couple of projects in which we worked overtime. Early phase growing pains, when we did not have our act together. Since then, it's been a long time and we haven't worked overtime. Some people do it on a voluntary basis [--], work until nine on Monday and then leave early on Friday. But I don't feel that we have a culture that is based on working overtime (Otto, Studio Head).

There can also be differences between generations—if developers grew up with different kinds of games, they may not only have a different version of "game talk" but also different ideas about the optimal organization of work. One of the informants was recruited from Finland to a UK studio to bring some structure and composure to a development team that was used to rather grueling working methods.

In this company we have quite a few old school devs who have been working on games for a long time. And they are clearly used to crunching. And then again, for example at [names his previous studio] we had a clear policy that we don't crunch but we pay attention to planning things well. And it worked out. Worked out pretty well. [--] So one mandate from the company leadership to me has been to slow down the pace [--]. And this is something I've now tried to do. To show how to do things calmly, to do them properly (Henry, Producer).

The everyday processes of the game studio are obviously not isolated from the previously discussed levels of game development cultures. As Jørgensen (2019) elegantly shows in her study of a small Norwegian game studio, particular work practices and project management issues can have connections, for example, to national work-related legislation and policy support systems. Similarly, and as already discussed, if establishing a no-crunch policy for a game studio seems more common in Finland than in some other parts of the world, these decisions can also be connected to both formal regulation and overall working cultures.

Finally, not all game development-related work happens in game companies. As Keogh (2019) points out, quite a few game developers do not consider themselves as part of "the video game industry" at all. They may not want to make a living from their craft, but still importantly contribute to our understanding of who makes video games and how they are made. Outsourcing is another example of how game development-related activities are moving outside studios. For example, game testing often happens in external quality assurance companies that may have very different organizational principles and working cultures (Ozimek 2019). While the practices of independent developers and third-party service providers can call into question the significance of shared premises, the local aspect does not simply fade away. Instead, as Parker and Jenson (2017) highlight, independent games are often made at the intersection of the global and the local, relying on both international communities and local networks. Although many key resources can be found through online communities, local events still provide an opportunity for meeting like-minded individuals, sharing experiences, and learning from each other (Sotamaa, 2020).

Discussion and conclusion

Kerr (2017) calls for multi-scalar approaches when trying to comprehend contemporary cultural production. This article has used a three-layer approach to understand game development cultures. The quick glance at the formation of the Finnish game industry showed how the majority of the companies have always been small, and this region has never hosted massive AAA studios with hundreds of employees. Due to limited resources, emerging gaming platforms (e.g., early forms of mobile gaming) have been actively explored. When examining the working cultures within the industry more closely, it becomes obvious that national workplace regulations shape the everyday life of game developers in concrete ways. At the same time, flat hierarchies support flexible working hours that can somewhat paradoxically lead to both increased workplace satisfaction and work-related tasks that bleed into one's spare time. More detailed look into the everyday game studio practices highlights the importance of creating a favorable atmosphere and managing messy everyday social entanglements.

If we return to the 37.5-hour work week discussed at the beginning of the article, a few observations can be made. It seems that some Finnish studios have a clear no-crunch policy which means that agreed work time regulations are followed and

clearly communicated to the employees. In this kind of environment, game development can become a steady 9-to-5 job. This may not be permanent, but in the past few years, certain companies have been able to follow this kind of model. At the same time, it is clear that exhibiting comfortable working conditions and balanced working hours is part of companies' PR and recruitment plans. In some cases, it can also become a form of "virtue signaling" that can hide potentially problematic practices behind the façade of an ostensibly progressive studio culture. Interestingly, most people who reported very reasonable working hours could still name individuals or studios which had a tendency to work overtime. This reminds us about how informants may in certain situations try to provide a more favorable impression of themselves, and this "social desirability" effect is of course something that needs to be taken into account when analyzing research data. Such biases can, however, be mostly avoided by carefully contextualizing the findings with other data sources and prior studies. It seems plausible that the reported hours primarily cover the time spent on easily identifiable work tasks, while related activities also continue after the set work day. In this respect, future studies utilizing methods like participant observations and work diaries can help in verifying the results in more detail.

In this article, I have tried to show that there are good reasons to put more focus on the cultural aspects of game development. Focusing solely on profits, monthly active user stats, or employment numbers provides a particular picture of the industry that tells us very little about the contexts in which most game production work happens (Keogh, 2019). Exploring the different layers of game development cultures reveals how local factors and histories connect in complex and sometimes unpredictable ways to organizational cultures and modes of production. The relevant layers are obviously not limited to those discussed in this article, but need to be selected case by case. Future studies can benefit from both macro- and micro-level approaches, highlighting, for example, the role of wider regional and global regulations (Kerr, 2013; Nieborg & de Kloet, 2016) or focusing on individual developers and their practices in-depth.

When writing about paying corporate taxes in his recent annual missive, Supercell CEO Ilkka Paananen underlined how "[m]any of us who have benefited from our free education and health care financed by taxes feel proud that we can contribute to our society in this way" (Paananen, 2020). While one can downplay Paananen's words as a corporate PR stunt, in the current times of aggressive tax avoidance and tax evasion, this still feels refreshing. In their exploration of the Finnish information society model, Castells and Himanen (2002) reported that perhaps the most interesting feature of this system was the effort made to combine technological and economic success with equality and social justice. While the societal and economic ideals have obviously changed in two decades, the exploration of current video game industry cultures reveals that alternatives to the "Silicon Valley" ethos are still actively explored when moving toward the third decade of the new millennium.

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References

Albiin, A., & Casén, S. (2017). *Nordic game education Index*. Stockholm, Sweden: Dataspelbranchen.

Ali-Yrkkö, J., & Hermans, R. (2004). Nokia: A giant in the Finnish innovation system. In G. Schienstock (Ed), *Embracing the knowledge economy. The dynamic transformation of the Finnish innovation system* (pp. 106-127). Cheltenham: Edward Elgar.

Ashton, D., & Giddings, S. (2018). At work in the toybox. *The International Journal of Entrepreneurship and Innovation*, *19*(2), 81-89.

Banks, M., Connor, B., & Mayer, V. (2015). Preface. In M. Banks, B. Connor, & V. Mayer (Eds), *Production studies, the sequel! cultural studies of global media industries (ix-xv)*. London, UK: Taylor & Francis.

Banks, J., & Cunningham, S. (2016). Creative destruction in the Australian videogames industry. *Media International Australia*, *160*(1), 127-139.

Björk, S. (2008). Games, gamers, and gaming: Understanding game research. In: Proceedings of the 12th Mindtrek Conference, Tampere, Finland, 7-9 October 2008 (pp. 64-68). New York, USA: ACM.

Boellstorff, T. (2006). A ludicrous discipline? Ethnography and game studies. *Games and Culture*, *1*(1), 29-35.

Bulut, E. (2020). *A precarious game: The illusion of dream jobs in the video game industry*. Ithaca, NY: Cornell University Press.

Castells, M., & Himanen, P. (2002). *The information society and the welfare state: The Finnish model*. Oxford, England: Oxford University Press.

Conway, S., & de Winter, J. (Eds.). (2015). *Video game policy: Production, distribution, and consumption*. New York, USA: Routledge.

Crawford, G., & Rutter, J. (2006). Digital games and cultural studies. In J. Rutter, & J. Bryce (Eds), *Understanding digital games* (pp. 148-165). London, Thousand Oaks, New Delhi: Sage Publications.

Deuze, M., Martin, C. B., & Allen, C. (2007). The professional identity of gameworkers. *Convergence: The International Journal of Research into New Media Technologies*, *13*(4), 335-353.

Findikaattori. (2019). *Membership in employee organisations*. Retrieved from https://findikaattori.fi/en/36

Fung, A. (Ed.). (2016). *Global game industries and cultural policy*. Cham, Switzerland: Palgrave Macmillan.

Gregg, M. (2011). *Work's intimacy*. Cambridge, London: Polity Press.

Johnson, D. (2014). Chicks with Bricks: Building creativity across industrial design cultures and gendered construction play. In M. J. P. Wolf (Ed), *LEGO studies: Examining the building blocks of a transmedial phenomenon* (pp. 81-104). New York, USA: Routledge.

Jørgensen, K. (2019). Newcomers in a global industry: Challenges of a Norwegian game company. *Games and Culture*, *14*(6), 660-679.

Jørgensen, K., Sandqvist, U., & Sotamaa, O. (2017). From hobbyists to entrepreneurs: On the formation of the Nordic game industry. *Convergence*, *23*(5), 457-476.

Kelly, G. (2013). *Finland and Nokia: An affair to remember*. Retrieved from: https://www.wired.co.uk/article/finland-and-nokia. WIRED, 4/10/2013.

Keogh, B. (2019). The cultural field of video game production in Australia. *Games and Culture*, *16*(1), 116-135.

Kerr, A. (2006). *The business and culture of digital games: Gamework and gameplay*. London, UK: Sage Publications.

Kerr, A. (2013). Space wars: The politics of games production in Europe. In N. B. Huntemann, & B. Aslinger (Eds), *Gaming globally: Production, play, and place* (pp. 215-232). New York, USA: Palgrave Macmillan.

Kerr, A. (2017). *Global games: Production, circulation and policy in the networked era*. New York, USA: Routledge.

Kerr, A., & Cawley, A. (2012). The spatialisation of the digital games industry: Lessons from Ireland. *International Journal of Cultural Policy*, *18*(4), 398-418.

Kerr, A., & Kelleher, J. D. (2015). The recruitment of passion and community in the service of capital: Community managers in the digital games industry. *Critical Studies in Media Communication*, *32*(3), 177-192.

Kirkpatrick, G. (2013). *Computer games as social imaginary*. Cambridge, Malden: Polity.

Kline, S., Dyer-Witheford, N., & de Peuter, G. (2003). *Digital play: The interaction of technology, culture, and marketing*. Montreal, Kingston: McGill-Queen's University Press.

Komulainen, L., & Sotamaa, O. (2020). IGDA Finland hubs and their role in local game development. In Proceedings of academic mindtrek 2020. (pp. 92-99). New York: ACM.

Kuorikoski, J. (2014). *Play Finland: History of the Finnish video games industry*. Helsinki, Finland: Neogames.

Lappalainen, E. (2016). *The realm of games: How a small Nordic nation became an industry giant*. Helsinki, Finland: Neogames.

Latorre, Ó. P. (2013). The European videogame: An introduction to its history and creative traits. *European Journal of Communication*, *28*(2), 136-151.

Lehtonen, M. J., Ainamo, A., & Harviainen, J. T. (2019). The four faces of creative industries: Visualising the game industry ecosystem in Helsinki and Tokyo. *Industry and Innovation*, *27*(9), 1062-1087.

Mäyrä, F. (2009). *An introduction to game studies: Games and culture*. London, Thousand Oaks & New Delhi: Sage Publications.

Meda-Calvet, I. (2016). Bugaboo: A Spanish case of circulation and co-production of video games. *Cogent Arts & Humanities*, *3*, 1.

Moen, E., & Lilja, K. (2005). Change in coordinated market economies: The case of Nokia and Finland. In G. Morgan, R. Whitley, & E. Moen (Eds), *Changing capitalisms?* (pp. 352-379). Oxford: Oxford University.

Nahkamäki, R. (2015). Work-Life Balance. In *The Finnish game industry*. Bachelor's thesis. Jyväskylä, Finland: JAMK University of Applied Sciences.

Neogames (2019). *The game industry of Finland*. Helsinki, Finland: Neogames.

Nieborg, D. B., & de Kloet, J. (2016). A patchwork of potential: A survey of the European game industry. In A. Fung (Ed), *Global game industries and cultural policy* (pp. 201-226). London, UK: Palgrave Macmillan.

OECD (2020). *OECD better life Index: Work-life balance*. Retrieved from http://www.oecdbetterlifeindex.org/topics/work-life-balance/

Oinas, P. (2005). Finland: A success story? *European Planning Studies*, *13*(8), 1227-1244.

Ozimek, A. M. (2019). Outsourcing digital game production: The case of Polish testers. *Television & New Media*, *20*(8), 824-835.

O'Donnell, C. (2009). The everyday lives of video game developers: Experimentally understanding underlying systems/structures. *Transformative Works and Cultures*, *2*(1), 1-11.

O'Donnell, C. (2014). *Developer's dilemma: The secret world of videogame Creators*. Cambridge, London: MIT Press.

Paananen, I. (2020). My take on Supercell in 2019 as we enter our second decade. Retreived from: https://supercell.com/en/news/my-take-supercell-2019-we-enter-our-second-decade/7427/.

Parker, F., & Jenson, J. (2017). Canadian indie games between the global and the local. *Canadian Journal of Communication*, *42*(5), 867-891.

Pennanen, M. (2019). *Suomen peliala suhtautuu ylitöihin kriittisesti*. Retreived from http://peliala.fi/2019/07/10/tiedote-suomen-peliala-suhtautuu-ylitoihin-kriittisesti/

Roininen, T. (2013). *The quality of life in the Finnish game industry*. Master's Thesis. Jyväskylä: University of Jyväskylä.

Ruggill, J. E., McAllister, K. S., Nichols, R., & Kaufman, R. (Eds), (2017). *Inside the video game industry: Game developers talk about the business of play*. New York, USA: Routledge, Taylor & Francis Group.

Saarikoski, P., & Suominen, J. (2009). Computer hobbyists and the gaming industry in Finland. *IEEE Annals of the History of Computing*, *31*(3), 20-33.

Salen, K., & Zimmerman, E. (2004). *Rules of play: Game design fundamentals*. Cambridge, London: MIT Press.

Sandqvist, U. (2012). The development of the Swedish game industry: A true success story? In P. Zackariasson, & T. Wilson (Eds), *The video game industry: Formation, present state, and future* (pp. 134-156). New York: Routledge.

Savonen, T. (2018). Supercell tähtää seuraavaksi kasvuun Kiinassa - toimitusjohtaja vakuuttaa yhtiön pysyvän Suomessa. *Turun Sanomat*.

Schwab, K. (Ed.). (2019), *The global competitiveness report 2019*. Geneva, Switzerland: World Economic Forum.

Shaw, A. (2010). What is video game culture? Cultural studies and game studies. *Games and Culture*, *5*(4), 403-424.

Sotamaa, O. (2009). *The player's game: Towards understanding player production among computer game cultures*. Tampere: University of Tampere.

Sotamaa, O. (2020). Modes of independence in the Finnish game development scene. In P. Ruffino (Ed.), *Independent videogames: Cultures, networks, techniques and politics*, (pp. 223-237). London & New York: Routledge.

Sotamaa, O. (2021). Playing at work: Game developers playing games: Instrumental play, game talk, and preserving the joy of play. In O. Sotamaa & J. Svelch (Eds.), *Game production studies* (pp. 103-121). Amsterdam: Amsterdam University Press.

Sotamaa, O., Jørgensen, K. & Sandqvist, U. (2019). Public game funding in the Nordic region. *International Journal of Cultural Policy*, *26*(5), 617-632.

Sotamaa, O. & Karppi, T. (Eds.) (2010). *Games as services – Final report*. TRIM Research Reports 2. Tampere: University of Tampere.

Sotamaa, O., Tyni, H., Toivonen, S., Malinen, T., & Rautio, E. (2011). *New paradigms for digital games: The finnish perspective*. TRIM Research Reports 3. Tampere: University of Tampere.

Švelch, J. (2018). *Gaming the iron curtain: How teenagers and amateurs in communist Czechoslovakia claimed the medium of computer games*. Cambridge, London: MIT Press.

Švelch, J. (2019). Resisting the perpetual update: Struggles against protocological power in video games. *New Media & Society*, *21*(7), 1594-1612.

Taylor, T. L. (2006). *Play between worlds: Exploring online game culture*. Cambridge, London: MIT Press.

Tyni, H. (2020). Double duty: Crowdfunding and the evolving game production network. *Games and Culture*, *15*(2), 114-137.

Tyni, H. & Sotamaa, O. (2014). Assembling a game development scene? Uncovering Finland's largest demo party. *Game: The Italian Journal of Game Studies*. *3*(2014), 109-119.

Vanderhoef, J., & Curtin, M. (2015). The crunch heard round the world: The global era of digital game labor. In B Conor, M Banks, & V Mayer (Eds), *Production studies: The sequel*, (pp. 196-209). New York, USA: Routledge.

Weststar, J., Kwan, E., & Kumar, S. (2019). *Developer satisfaction survey 2019: Summary report* International Game Developers Association. Retrieved from https://igda.org/resources-archive/developer-satisfaction-survey-summary-report-2019/.

Whitson, J. R. (2020). What can we learn from studio studies ethnographies?: A "messy" account of game development materiality, learning, and expertise. *Games and Culture*, *15*(3), 266-288.

Woodcock, J. (2020). Organizing in the game industry: The story of game workers unite U.KK.. *New Labor Forum*, *29*(1), 50-57.

Zackariasson, P. & Wilson, T. L. (Eds), (2012). *The video game industry: Formation, present state, and future*. New York, USA: Routledge.

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