3. EMBRACING GLOBAL AND LOCAL

HOW GAME INDUSTRY EXPATRIATES WORK BETWEEN GLOBAL AND LOCAL GAME DEVELOPMENT PRACTICES

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ABSTRACT

The paper explores cases of immigrant/expatriate game developers ("game expats") in Finland, focusing on the influence of global platforms and local game development practices. Results from qualitatively analyzing longitudinal interview transcripts (n=64) collected from 2020 to 2023 indicate that the migration of game expats is inherently bound to globally shared and fast-changing game development tools and platforms (e.g., shared game engines, publishing channels). Thus, an individual's digital compatibility with global technical practices positively affects the motivation to migrate. Meanwhile, countries and companies each have different

ways of implementing game development practices into work (e.g., different terminology, prioritization). The individuals' ability to adapt to such local interpretations of practices positively affects settlement and motivation to stay. However, despite the pluralistic nature of game development — of both global and local factor's influence — the incidents of cultural encounters and tryouts were often perceived as a risk amongst game developers. This negative perception leads to game expats' assimilation and self-exploitative work attitudes. Therefore, the paper calls for a joint effort of industrial and societal game ecosystem stakeholders to encourage cultural competence and tolerance in the ecosystem to nurture sustainable talent pools and inclusive game work environments.

KEYWORDS

game expats, migration, game work, game production, game development, platforms

INTRODUCTION

The video game industry has become one of the influential cultural industries in the 21st century, and has seen a rise of regional game development hotspots worldwide (Kerr 2017; Lehtonen, Ainamo, and Harviainen 2020; Šisler, Švelch, and Šlerka 2017). Following the industry's global growth, the number of migrant/expatriate workers developing games has also increased. In Finland, nearly one-third of game workers are from abroad (30%, including 15% from non-EU/EEA regions) (Neogames Finland 2023). Similar trends were also reported in the UK (Taylor 2022), Czech Republic (GDACZ 2022), and other parts of the world (Weststar et al. 2021), indicating the significance of work-based migration for the industry. Game development is also a creative team effort influenced by various individual and social factors (Kerr 2011; Kultima 2018; Whitson, Simon, and Parker 2018) and the region's culture of making games (Šisler, Švelch, and Šlerka 2017; Sotamaa 2021).

This research paper explores how migrating from one region to another influences the work of game development practitioners, based on longitudinal interviews collected from 2020 to 2023. In this paper I will use the term *game expatriates* (henceforth, "game expats") (Park 2021, 2023) to describe game developers that migrated primarily due to their game profession (Al Ariss and Özbilgin 2010; Andresen, Ariss, and Walther 2012). Game expats may or may not have concrete long-term settlement plans, due to precarious job contracts and the unpredictability of the game work (Kücklich 2005; Kerr and Kelleher 2015; Creus, Clares-Gavilán, and Sánchez-Navarro 2020; Keogh 2023).

Among the many analytical points to be discovered, in this paper, I report the interplay between the global game development practices enforced by multinational corporations (e.g., game development platforms) (Chia et al. 2020; Jin 2015; Nieborg and Poell 2018) versus the regional game development cluster's local interpretation of practices (e.g., teaming, design values, workspace norms) (Kultima 2018; Šisler, Švelch, and Šlerka 2017; Parker and Jenson 2017), and how it affects the game expats' work adjustment in the context of the *acculturation model* (Berry 2005; Berry et al. 1989; Dyal and Dyal 1981). The acculturation model categorizes individual adaptation strategies after migration based on whether they choose to retain or reject their own original cultural practices, while at the same time deciding to either adopt or reject the host country's cultural practices. By referencing the acculturation model, this paper explores how migration from one country to another – in this case, to Finland – affects the game expat's choice to retain, reject, or adapt their precedent practices from their former location of work, and thus the games that they may subsequently produce, by asking:

> RQ: *How do global and local factors each affect a game developer's settlement intention and work practices after migration?*

To answer this research question, I have conducted semi-structured interviews with two different game expat groups in Finland. The first was a longitudinal participant group consisting of nine

South Koreans, which I interviewed regularly twice per year from 2020 until 2023, resulting in 44 rounds of interviews (n=44). Second, I conducted one-time interviews between 2020 to 2022 from game expats with various national and cultural backgrounds (n=20), to explore migration and work experiences from various viewpoints. In total, 64 interview transcripts were collected and analyzed.

In the following, I first review previous studies on game developers' work conditions and details about migrant's four acculturation strategies. After laying out the details about the participants and this analysis process, this paper will delve into the findings from the data. This will be followed by reflection on the previous studies and the potential implications stemming from the research outcomes. Knowledge built from this research contributes to both practices and research: In practice it will benefit game companies and policymakers for developing inclusive hiring and human resource principles. In the academic landscape I hope to inspire further research on game expats and the regional diversities of making games, which could help us broaden our knowledge of the diversity and inclusion in this highly creative and collaborative work.

CONTEXT

Work conditions and practices of game development

Game development work is often creative, immaterial, multitudinous, and interdisciplinary (Deuze, Martin, and Allen 2007; De Peuter and Dyer-Witheford 2005; Keogh 2023). On one hand, working conditions are similar to those in other cultural industries (e.g., films) in the sense that game workers' professional identity and work satisfaction tends to be inseparable from the unique creative contributions to the products that they work on (Banks 2017; Dubois and Weststar 2022; Wimmer and Sitnikova 2011). On the other hand, the game industry also has a substantial connection with the software industry (McKenzie, Trujillo, and Hoermann 2019), such as as the Agile methodology

and specialized digital skill sets (Lopez and Wright 2002). Game development is also a team-based collaborative process, involving tens of or thousands of individuals (Dyer-Witheford and De Peuter 2009, 2021). Game development also often happens simultaneously in multiple geographical locations, for example, regional subsidiaries and an outsourced supply chain for work (Ozimek 2019; Schwartz 2018) that includes asset creation, source code development, quality assurance, customer service, localization, etc. But studies have also reported the game industry's concerning norms of flexibility and continuous up/re-skilling (Consalvo and Paul 2018; Creus, Clares-Gavilán, and Sánchez-Navarro 2020), normalization of a self-exploitative environment blurred between work and leisure (Cote and Harris 2021a, 2021b; Dyer-Witheford and De Peuter 2006; Edholm et al. 2017), the individualized and competitive nature of the work (O'Donnell 2014; Ruffino 2022), and class stratification within the workers' group (Chia 2022; Ozimek 2021; Park et al. 2022).

The growth of the global game industry in recent years has also been boosted by rapidly advancing digital technologies (e.g., computational power, internet connection), which are now also deeply inherent in platform economy (Srnicek 2016) that institutes how to create, distribute and monetize games (Chia et al. 2020; Nieborg and Poell 2018). A few digital platforms dominate the global game industry, in the form of various conventions of gaming peripheral interfaces and related operating systems (e.g., Android, Windows, PlayStation), engines (e.g., Unity, Unreal), and publishing channels (e.g., Google Play, Valve Steam), etc. More and more game developers – mainstream or indies alike, are now dependent on the same platforms and tools to access broader audiences (Thorhauge 2022; Young 2021). But it is also worth mentioning the grass-root efforts seeking alternative channels and modes for the creation of games (Parker and Jenson 2017; Lai et al. 2021; Švelch 2018). There are also connections between local communities' sharing of knowledge through game-related events (e.g., multi-city game jams) and organizational mediators (Kankainen, Kultima, and Meriläinen 2019; Perks et al. 2019). Cases like these exemplify the pluralistic nature of the game develop-

ment culture that cannot be understood in isolation, but is instead intertwined with both industrial, societal, and cultural contexts (Šisler, Švelch, and Šlerka 2017; Sotamaa and Švelch 2021).

Therefore, there are also efforts to acknowledge the actions of game-making, not merely as an occupational profession, but as a form of expression and self-making (Kultima 2018; Chia 2021). Such a view allows scholars to account for multiple identities of game developers — not just as producers of cultural commodities, but also as game players, fans, and hobbyists. Here, the expertise in making games is seen as not just a matter of getting proficient in a process or performing accurate tasks, but a process of discovering ways of doing things: starting from the acquisition of precedent practices, all the way to building their own methods and tricks – known as *design gambits* (Lawson 2004; Lawson and Dorst 2009; Kultima 2018). Ethnographical studies also reported that game development involves various "soft" human-to-human aspects such as communication style and aesthetical preferences in the day-to-day life of game developers (Whitson 2018; Pelletier 2022).

Migration and acculturation

The UN Migration Agency (IOM) defines a migrant as any person who is moving or has moved across an international border or place of residence, regardless of legal status, voluntary or involuntary intention, the reason behind the relocation, and duration of stay (UN 2023). Among various forms of migration motivation, those individuals who migrated on their own initiative based on occupation (e.g., taking a job in a foreign country) are called "self-initiated expatriates (SIE)" (Andresen, Ariss, and Walther 2012). These individuals migrate to seek new opportunities and an improvement in life (Doherty, Dickmann, and Mills 2011; Froese 2012; Richardson and McKenna 2003), and are thus likely to have higher expectations related to career and life improvement upon migration. They are seen in many specialized industrial sectors such as IT (Picot and Hou 2018; Hyrynsalmi, Rantanen, and Hyrynsalmi 2021), academia (Froese 2012; Richardson and

McKenna 2003), and, of course, the game industry (Park 2021). There are also game developers who actively seek a career abroad because there are no local game companies available in their home country (Park et al. 2022). From there, we can identify migrants' motivation and settlement intentions in three categories: (i) *Push* – the desire and perceived benefits of leaving the current country, (ii) *Pull* – the desire and perceived benefit departuring to the chosen country or to remain in the current country, (iii) *Shock* – unexpected encounters such as cultural differences that cause workers to re-evaluate their desire to expatriate or re-expatriate (Shaffer et al. 2012; Tharenou and Caulfield 2010).

The growing demands for digitized solutions in developed countries in recent years have increased demands for SIE technical workers (e.g., software engineers, data analysts) (Bjerregaard 2014; Koskela 2014; Hyrynsalmi, Rantanen, and Hyrynsalmi 2021), and contested hiring between game companies (Harvey 2019; Wimmer and Sitnikova 2011). For instance, digital talents are acknowledged as valuable human resources by Finnish state initiatives sparked by industry demands (YLE 2019). However, not all game workers are treated equally (Koskela 2014; Myöhänen 2023; Neogames Finland 2020; Game Makers Finland 2021), and Finland's immigration policy do not always benefit game expats who have limited work experience (i.e., juniors), instead, favor those who hold a certified educational degree with higher income (see Appendix 1).

What then happens when individuals, who already have their own culture, attempt to re-establish their employment and livelihood in another country? Scholars have tried to identify the long-term consequences "when groups of individuals having different cultures come into continuous first-hand contact, with subsequent changes in the original cultural patterns of either or both groups," a phenomenon called *acculturation* (Berry 1997; Redfield, Linton, and Herskovits 1936; Yijälä and Luoma 2019). There are two layers of acculturation, one on how acculturation make changes to the more dominant social groups in the host country (e.g., inhabitants), and another on how it changes the psychology and behaviors of the indi-

vidual who moved (e.g., migrants) (Graves 1967). This leads to four acculturation strategies, depending on the contact and participation (i.e., to what extent the migrant is involved with dominant groups) and the cultural maintenance (i.e., to what extent the cultural identities of migrants are considered to be important enough to be maintained) (Berry 2005, 1997; Berry et al. 1989) (See Figure 1).

ISSUE 1

Is it considered to be of value to maintain cultural identity and characteristics?

"YES"   "NO"

ISSUE 2

Is it considered to be "YES" of value to maintain relationships "NO" with other groups?
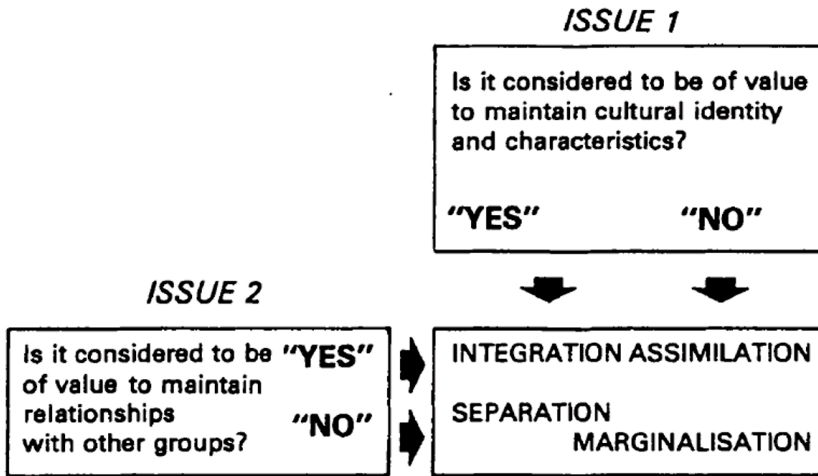
INTEGRATION ASSIMILATION

SEPARATION

MARGINALISATION

Figure 1: Four modes of acculturation based on orientation towards issues of cultural maintenance and intergroup contact (retrieved from (Berry et al. 1989, 187))

These four acculturation strategies are: (a) *Integration*, when some degree of cultural integrity of migrants is maintained while the migrants also perceive it as valuable to maintain relationships with the dominant group. (b) *Assimilation,* when individuals do not maintain their own cultural identity (e.g., due to oppression), while pursuing active interaction to merge with the dominant group. (c) *Segregation*, in contrast to assimilation, is when the individual wishes to maintain their original culture while avoiding interaction with the dominant group, (d) *Marginalization*, refers to the situation where there are limited opportunities to interact with other migrants or dominant groups, and thus neither maintain cultural identity nor engage with another culture — often due to forms of discrimination. As such, *integration* can be successfully achieved when migrants can

choose to pursue it in an environment that is open and inclusive of cultural diversity. Thus, a *mutual accommodation* (Berry 1997; Berry et al. 1989) that enables the migrants' social connectedness in the new environment (Dyal and Dyal 1981; Yijälä and Luoma 2019).

METHOD

Data

I have used a multimodal longitudinal research design based on two sets of interview data collected from 2020 to 2023 (see Appendix 2).

Firstly, the longitudinal interviews of nine South Korean game expats in Finland, held regularly twice each year from 2020 to 2023, for a total of 44 sessions of interviews (n=44), while also observing their activities and social engagements at gatherings of Korean developers in the Helsinki region. My nationality and cultural background — also being a South Korean migrant in Finland — allowed me to engage with the participants, and acknowledge their native language, cultural background, and the exact immigration procedures that they faced. My previous work experience in the Korean game industry also provided knowledge and understanding of the participant's description of their day-to-day work. In the first interview, each longitudinal participant was asked about their migration story, work practices, and short-term and long-term prospects of living in Finland. In follow-up interviews, participants were asked about the changes in their life and work. Visual representations of the initial analytic direction (Sale 2022) in a web-comic form using comic-based research methods (Haughney 2008; Kuttner, Weaver-Hightower, and Sousanis 2020; Weaver-Hightower, Sousanis, and Kuttner 2017), illustrated by myself, were presented to the participants to help them remember their previous interviews. The interview was conducted in Korean following a semi-structured format, with a guideline that also included phenomenological questions that inquired about perceptions of games, gaming experience, and game career prior to migra-

tion. Forty-five hours of interviews were collected over the course of three years, which were transcribed in Korean, but then coded in English during the analysis. Direct quotes were translated into English for this report.

Secondly, I also gathered one-time interviews of game expats (n=20) in Finland from a range of nationalities, which offered a broader sense of game work migration in Finland. These one-time interviews were collected in English. In total, roughly twenty-two hours of interviews were collected and then transcribed into English. A significant portion of these interviews were conducted remotely using Zoom (https://zoom.us/) to comply with the social distancing measures during the global COVID-19 pandemic of 2020-2022. For the report, the original home countries of one-time participants were anonymized to approximate regions (e.g., North America, Asia-Pacific) to ensure the participant's privacy, considering the small size of Finland's game expat community. Meanwhile, all longitudinal participants generously permitted their home country (South Korea) to be revealed in the report. Research consent was collected both through the online pre-survey and verbally at the beginning of the interview. In accordance with the Finnish National Board on Research Integrity (TENK) guidelines at the time of the research, as adopted by Aalto University, the research did not require an ethical review statement from a human sciences ethics committee because all participants were adults, and no sensitive personal data were involved.

With both groups' participants (n=29) combined, there were more who identified as male (n=25, 86.2%), and a significant portion of senior game developers had more than seven years of game work experience (n=22, 75.8%) — including six (20.6%) who had more than 16 years of game work experience at the time of the interview. 75.8% (n=22) of the participants said they had worked in countries other than their country of origin and the current host country, Finland. Out of nine longitudinal participants, seven remained in Finland during the time of the research. One returned to home country during the research period, and, in the last interview session, another

expressed the intention to relocate to another country. Both were then also asked what motivated them to exit Finland.

Analysis

I have used grounded theory starting from the coding process with an inductive and open-ended approach (Saldaña 2003; Salisbury and Cole 2016). Coding was conducted in English using the ATLAS.ti 23 software. I focused on coherent patterns that emerged from the data (Carmin and Balser 2002; Grigoreanu et al. 2009) while referencing previous ethnographic case studies of game developers and their work behaviors (Kultima 2018; O'Donnell 2009; Whitson 2018). Then I conducted an analytical abstraction and produced a set of four analytical directions (Sale 2022), while again trying to interpret the participants' intentions in the quotes and how the identified codes correspond to each other. Those directions were: (a) *Global industry factors;* the condition of local game work in Finland in the context of the global game value chain (Sotamaa and Švelch 2021; Dyer-Witheford and De Peuter 2009), (b) *Local industry factors;* the surrounding local context within the Finnish game development ecosystem (Jørgensen, Sandqvist, and Sotamaa 2017; Kultima and Peltokangas 2019; Lehtonen, Ainamo, and Harviainen 2020; Sotamaa et al. 2011), (c) *Societal factors;* institutional and societal framework (e.g., HR, immigration policies) (Cadin, Guérin, and DeFillippi 2006; Casper and Storz 2017), and (d) *Individual factors;* work values and motivations (Creus, Clares-Gavilán, and Sánchez-Navarro 2020; Deuze, Martin, and Allen 2007; Kultima 2018). Furthermore, transcripts from longitudinal interviews were again reviewed focusing on changes in views over the course of time, as personal narratives provide a broader view on the societal spectrum that affects their lives (Crowley-Henry and Weir 2007). If the participants claimed that they had changed their views or practices since the previous interview, it was then marked as "change." Otherwise, it was marked as neutral or "maintained." In total, 185 codes were identified.

FINDINGS

The findings show that game expats generally perceive game development processes as homogeneous across the world, as their day-to-day work relies heavily on using globally shared tools and platforms. The competency with these tools and their shared technical principles positively affects the migration intentions of game expats in the short-term. But at the same time, game expats frequently witness various new interpretations of work practices upon migration. This includes different ways to combine and interpret tools, styles of communication and decision-making, difference in task prioritization, terminological differences, work attitudes, preferences, and many more. The ability to adapt to these local interpretations affects job status stability and thus long-term settlement of game expats.

Compatibility to globally standardized (digital) technicalities

Global tools and common technical skill set of game expats

The participants' migration process was inherently bound to the job demands of game development. Most participants claimed that they had migrated to Finland, not because they knew about Finland, but because they were offered a job that brought them to Finland. According to the participants, the game job hiring first involves validating the candidates' capability with the desired technical skill sets, such as familiarity with specific gaming platforms (e.g., mobile, console) set by the game company's leadership. Participants claimed that once these gaming platforms and target audiences (e.g., casual, core gamers) are specified, the required technical skills are generally similar across the world, such as fluency with game engines (e.g., Unity, Unreal), graphic software (e.g., Maya, Illustrator), distribution platforms (e.g., Google Play, Valve Steam), and business models (e.g., free-to-play, pay-to-play). Therefore, most participants described their day-to-day work as "similar," "same," or "not changed" after migration. There were also similar technical principles shared among the tools (e.g., computer language, user interface). While there were

some established game studios with their own set of tools customized for the company's internal use, participants claimed that even those tools follow these principles and were thus not difficult for experienced game expats to adapt to. Such globally shared digital technicalities give game expats some sort of assurance that, no matter where they go, there should be something that they can recognize — which contributes positively to expatriation motivation (i.e., encourages to relocation).

Furthermore, game expats are generally expected to perform their work with high productivity upon migration to Finland. Individuals were often given a specific goal and immediately put to work to increase productivity. For example, participant R stated that her new Finnish employer immediately put her to work soon after joining the company without much training or onboarding, leaving R to figure out the company's processes on her own. Despite being somewhat baffled at first, participant R said she eventually concluded it reflected the company's high regard for her extensive experience in working on similar projects, and thus her high digital competences.

> *"I just joined, and I was surprised by how fast they* [the Finnish game company (anonymized)] *were to assign me tasks. It's not challenging for me, but if I had just started working as a game* (developer)*, I would have no idea what to do. Fortunately, I've worked with several tools like this. So, all the technical stuff was quite familiar* (R)*."*

The dominance of mobile games in the Finnish game industry (at least at the time of the research), meant that there were more job opportunities for those fluent with certain types of game engines (e.g., Unity), publishing platforms (e.g., App Store, Google Play), cloud service (e.g., Amazon Web Service), and business models (e.g., free-to-play) in Finland. It was also crucial to be knowledgeable about certain industry-wide terminologies and references (e.g., Match 3 Puzzle, battle passes). Overall, the participants generally associated universally shared mainstream (market-dominant) game

development tools and skill sets with their successful hiring, career enhancement, and immigration status.

Perceiving uncommonness and niche as a risk

Conversely, niche tools or unconventional skill sets were regarded as a risk. Participant E for example, who is specialized in console game development, which is somewhat niche in the Finnish game industry, claimed that he would rather migrate to another country when the current work contract expires, as there are only a few alternative job opportunities for him in Finland. Game artist Kor-C was worried that his current work with company-specific internal tools – which are somewhat niche from a global standpoint – might negatively affect his overall competences with mainstream 3rd party tools and could hurt his game career in the long run. The use of niche tools also had the potential risk of losing access to target audiences, higher production costs, and tougher access to cheaper labor (i.e., outsourcing). As such, manager Kor-E saw niche tools as a risk in the highly competitive mobile games market, as shown in the excerpt below:

> *"I personally think self-development, as in, making games with their internal tool, like their own game engine, is not a good thing in mobile games. (...) For example, if your company is not using Unity* (game engine)*, but something else, then there should be a very good reason for it* (Kor-E, 2021-b)*."*

Technological advancement and market disruption also force game developers to alter their skill sets. Longitudinal data indicate that more and more participants were working (or at least trying to work) on data-driven tasks as the year went by (e.g., monitoring user retention, introduced to new bots, sales data tracking tools), as Finnish game companies were adopting user data-centric live game operations (i.e., Live Ops) into their business. Furthermore, the current mainstream skill set could turn into niche at any time, to quote, "something will certainly change drastically in the game industry (in a few years) (Kor-G, 2021-b)," indicating the volatile

condition of the game industry and its work. All participants with 16+ years of work had at least once converted their primary game development skill sets at some point in their game career to mobile games (e.g., iOS, Android). This is not surprising, as smartphones and mobile game publishing platforms (e.g., App Store, Google Play) did not exist early in their careers (1990s to early 2000s). This unstable condition of the game market negatively affects game expats' intention to settle, and rather retain a nomadic lifestyle attitude (i.e., maintaining intention to expatriate). For instance, upon being asked their long-term settlement intentions ("Will you be in Finland after 3-5 years?"), many participants were still unsure. This was not just about whether they would stay long-term in Finland, but whether they would settle in any country. This also included participants already with permanent residency in Finland, and also longitudinal participants who eventually remained in Finland throughout the three-year interview process.

Adaptability to local interpretations and social norms

Regional game development culture

Participants also spent a significant amount of their time in the interview asserting the significance of non-technical, human-to-human aspects at game work. Many also perceived that learning 'the Finnish ways' of developing games as a key factor for staying longer in the country, as it relates to their job and career stability. Participants with multiple relocation experiences also reflected on their experiences and claimed that what is deemed fit in game development work differs from country to country and from company to company. For instance, Kor-C was surprised by the striking difference in the size and structure of development teams, and differences in how parts of the production were prioritized to ensure the game's success, considering that his former (overseas) and current (Finnish) employers were producing games for similar platforms (e.g., mobile) and target audiences (e.g., free-to-play, casual game). Other participants reported varying scheduling techniques, even with the same

management tools (e.g., Scrum, Kanban), for example, how companies determine their year-to-year production milestones, and how frequent they do stand-ups (i.e., team updates). There were also different preferences in art style, game mechanics and in-game products, roles and responsibilities, and job titles. Kor-D said he never heard of the job title "product owner" before migrating to Finland. Instead, different job titles were used in his previous country of work, such as "game business planner" or "business manager," with a subtle difference in role and responsibility compared to a product owner in Finland. Kor-G also said there are different terminologies between countries or companies, and game expats have to adjust to those differences on their own:

> "Some would say 'gacha'. Some say 'loot box.' Some say 'random box'. (...) Catching up with those subtle differences in nuance (between jobs) does take some time. And you're on your own. Nobody will tell you what is what. So, I'd say I'm still in the learning process at this new job. I'm slowly catching up (Kor-G, 2021-b)."

Encountering such varying cultural interpretations of game development was not always a seamless process, but rather involved a series of negotiations and compromises between the game developers. Participant D was hoping to find ways to streamline his company's communication after witnessing a significant cultural gap between his multicultural colleagues. According to D, his teams – one located in Finland and another abroad, but under the same entity – were surprised after recently becoming aware of their different views regarding work and life – what was deemed as a correct communication method at work while developing games, to what was perceived as motivating factors at work. These subtle differences, stemming from the local culture, were prominent factors in their productivity, even if the teams were operating with the same tools, a single pipeline, similar company principles, and the same office language (English). He added that gathering people from different cultural backgrounds does not automatically lead to innovation. Rather it

requires a delicate process of encounters and resolutions, which takes time, and is, to quote, a "grind(ing)" process:

> *"It's not about language. It is not hard to find people who speak English. The problem is that the culture is different. (...) So it's difficult at the beginning. I think it will take a long time for each other. I would call it the "grind" (D)."*

There were also differences among the participants regarding their roles; those working in more technical roles (e.g., programmers) generally had fewer concerns about the cultural differences in game development, compared to game expats working in production (e.g., game designers, product managers) and management roles (e.g., project managers), which were more likely to focus sharp attention on local contexts while interacting with diverse stakeholders. There were also differences between seniors and juniors. Participant A and Kor-C, both senior game artists, said that they frequently talked with other team members, such as game designers, and were involved in managing outsourced artists and freelancers working remotely outside Finland. Therefore, their experiences were similar to those in managerial roles, with a daily routine that involved regularly communicating with different stakeholders. In contrast, junior game artist Q mainly interacted with other game artists while spending most of his time honing his own technical graphics skills (e.g., fluency with graphics software) and had a relatively firm view that the game development process itself is supposed to be identical regardless of its geographical location.

Unexpected encounters and the notion of "cultural fit"

Different cultural interpretations in game work practices were not always obvious at first to many of our game expats, and many reported that it took months, and even years, to adapt to their new environment. For instance, participants generally agreed that while most Finnish game companies used Agile methods – which game expats were generally familiar with – this involved lengthy meetings accompanied by a series of behind-the-wall conversations between

the team members, as the local game studios valued full consensus within the team when making decisions. Many participants speculated that this was perhaps related to Finland's "trust" oriented and "flat" management culture, but they generally agreed that such factors were not always obvious at first. And it was often up to the expats themselves to reach an understanding and to compromise, without much interaction with their native colleagues. For example, participant L said it took him several years to realize the intention behind his Finnish colleagues' work practices. Until then, he found himself constantly struggling to identify and compromise with the new Finnish workplace norms, which frequently clashed with those he had seen in other countries. One of those clashes was indeed about the long meetings, which L first regarded as hesitancy, evasion of responsibility, and a delaying tactic – and thus a potential business risk.

> *"There were clashes in my* [previous country's (anonymized)] *way of doing things, and* [Finnish game studio (anonymized)] *the Finnish way of doing things. I suspect this played a major role in how a lot of things did not go well. (...) I'm perfectly happy ending a meeting by saying: 'Okay, these two people don't like the decision, but the majority have reached a decision. We are ready to move forward.' But that didn't work out here in Finland. Until we're all pretty happy with the decision, the meeting is not over* (L)."

Similarly, Kor-I was confused by the new Finnish employer's autonomous leadership style, which was substantially different to companies that she had worked for prior to migration. She also remarked that autonomy was quite normal among Finnish colleagues, and was not mentioned at any stage during the onboarding process. This confusion, along with isolation due to the COVID-19 pandemic, led to Kor-I's negative assessment of her Finnish employer in the early phase of the longitudinal interview, as shown below. She eventually joined another game company that promised a more assertive style of leadership:

"I think the leader's job is supposed to be navigating and leading the team. Whereas at [Finnish game company (anonymized)]*, they just let people on their own. No one is taking actions to set things right.* (Kor-I, 2021-b)*"*

Participants also frequently talked about the term "cultural fit," which is widely used in the Finnish game development job market, and which vaguely describes the types of idealized or favored work behaviors and social norms shared by the dominant social groups in the game company. They also stated that being able to adapt to these norms (i.e., to become a "fitting" worker) as seamlessly and promptly as possible was regarded as essential for building the feeling of belonging, contract extensions, potential promotions, and compensation (e.g., salary raise). However, when asked to explain the meaning of "fit" in their new workplace in Finland, participants responded with varying answers, often contextualized and contradictory, even between game expats working (or having worked) for the same game company. Some participants claimed fitting work behavior in the Finnish game workspace meant being able to be productive while engaging in an atmosphere where people can express their ideas and passion for games. On the contrary, others said it meant an ability to work independently, showing initiative and being able to execute the given tasks without disturbing other colleagues. Enjoying a similar type of games (e.g., genre), gameplay background (e.g., childhood gaming experiences), hobby and leisure activities, the level of passion towards game development, and being active in the industry or company networking events were also mentioned. However, none of these minor factors revealed consistent patterns; instead, it remained contextual and varied individually.

DISCUSSION

Pluralistic game development practices

The findings suggest a significant influence of global game platforms on local game development, which influences the expatriation intentions of game expats, and the motivation to move abroad and relocate to the new host country (i.e., short-term settlement) (Tharenou and Caulfield 2010). In Finland, game development tools and thus technical proficiency in making mobile games positively influences the decision of game expats to relocate to Finland – and to depart Finland yet again, depending on job conditions. Meanwhile, niche game development tools and skill set outside of this mainstream were regarded as a risk. The fast-changing condition of the game industry, with rapidly enhancing digital technologies (e.g., AI) meant that the job market's desirable skill set might soon change. To accommodate such fluctuating technical demands and to catch up with mainstream skill sets, game expats constantly need to re-/upskill (Bergstrom 2022; Kücklich 2005) and become a stateless nomadic resource (Chia et al. 2020; Nieborg and Poell 2018) ready to move abroad again.

In contrast, local practices played a significant role in the pull to the current host country – decreasing the motivation to leave while increase the motivation to settle (Tharenou and Caulfield 2010). Game expats go through lengthy cultural adjustments upon migration, as countries and companies tend to have different ways of integrating (e.g., which tools to use for particular tasks, and design choices) and interpreting (e.g., terminology, prioritization) the company's game development practices. This may not always be a seamless process, but rather a series of cultural encounters, surprises, and even conflicts. This supports ethnographic case studies on the experience of game developers, which reported various human-to-human interactions (so-called "soft" skills) necessary in the game development process (Kultima 2018; Pelletier 2022; Whitson 2018). While the process may be messy – to quote "grinding" by one of the

participants – it resembles the experience of other migrants in different specialized occupations (Berry 2009; Bjerregaard 2014; Yijälä and Luoma 2019), indicating that this is an essential process for immigrants to adjust to the new environment, and eventually build social connectedness in the new host country (i.e., long-term settlement) (see Figure 2).
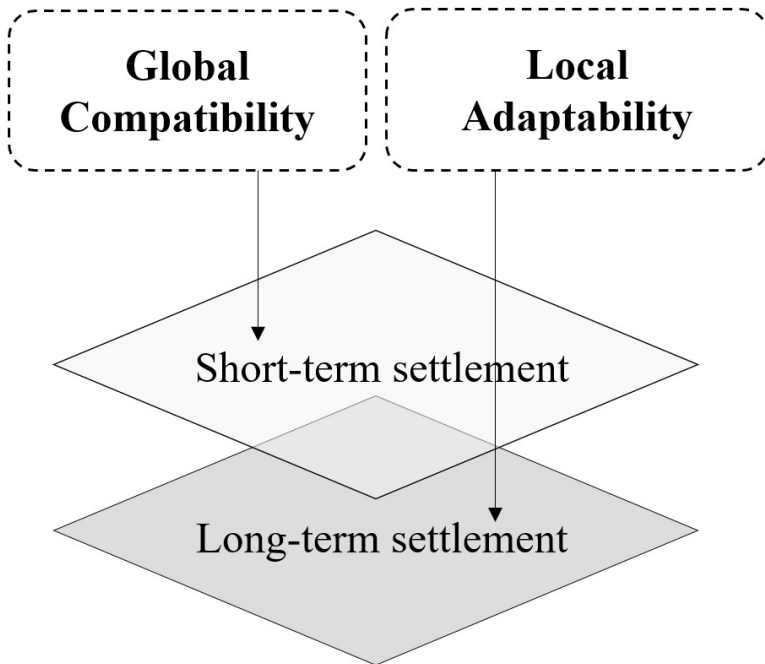

Figure 1: Four modes of acculturation based on orientation towards issues of cultural maintenance and intergroup contact (retrieved from (Berry et al. 1989, 187))

Imagined globality of game development

It is evident that game developer migration and the related adjustments are similar to other specialized migrant workers – the process is not always seamless, but rather lengthy and messy. This indicates that the idealistic myth of streamlined global game development is

far from reality, supporting the previous studies (Keogh 2023; Kultima 2018; O'Donnell 2009; Sotamaa and Švelch 2021). However, the dominance of global platforms and tools used in the day-to-day work of game developers also forms a monocultural worldview of universally compatible game development practices – a perception that idealizes seamless work adjustments to provide immediate productivity after migration.

The findings suggest alarming signals of insufficient onboarding as well as an isolated and individualized work transition process in Finnish game companies. Previous studies have also reported the common hiring tactics of Finnish game studios, favoring workers that are already experienced and compatible (Neogames Finland 2020), which aligns with Finland's recent effort to encourage more "skilled" migrants (Khan, Maury, and Ndomo 2021), but without a structured training process. This also explains the Finnish game industry's other common recruitment tactic of *closed hiring* (i.e., hiring from a closer network or personal referrals), actively trying to recruit those that are already a skilled and cultural fit – hiring those that are already familiar with desired social norms in the workspace (Park 2023; Rivera 2012), to minimize risk, as shown by the excerpt below:

> *"Game companies must act quickly because the market changes so rapidly. It could take at least 3 months to find someone, settle down, get to know, find out each other's work style and culture, etc. That's a risk. But if you hire seniors who you worked with before, you can minimize that time* (Kor-E, 2022-a)*."*

However, hiring an expert does not necessarily guarantee a complete avoidance of shock and surprises (Shaffer et al. 2012; Tharenou and Caulfield 2010) after migration, or a seamless transition without the process of cultural adjustments, encounters and some degree of acculturation stress (Dyal and Dyal 1981). More so, an experienced game developer tends to bring with them their pool of precedents, know-hows, and tricks (Kultima 2018; Lawson 2004; Lawson and Dorst 2009). Based on this, these individuals have firm

views of compelling ways to develop a game. Adjusting from such long-established cultural practices and work principles inevitably involves stress. It also requires time, especially when the social norm in the workspace is insufficiently informative or tolerant of newcomers.

It is important to note that cultural encounters are not necessarily always negative. Rather, they should be regarded as a natural process when two distinctive cultures meet, with the goal of accomplishing mutual changes (Berry 2005; Berry et al. 1989) that could perhaps turn into new interventions and innovative games. But the expectation of immediate productivity, assumed from the common usage of global game development practices (e.g., game engine, platforms) (Chia et al. 2020; Jin 2015; Nieborg and Poell 2018) without considering variables of local interpretations of practices, results in a homogeneous game work role model. Suddenly, what was perhaps the norm in other parts of the world – practices that the migrant has brought with them – are perceived as a risk. Combined with the volatile condition of the game market (Kerr 2017; Whitson 2019), this further penalizes 'other' work practices (e.g., leadership style, communication style) and game design choices (e.g., choice of tools, prioritizations) and further pushes Finnish game companies to fiercely look for the exact same talent; that are already technically compatible and already culturally adaptive.

The idealization of seamless work adjustments increases the acculturation stress (Dyal and Dyal 1981) of game expats, which pushes them towards *assimilation* (Berry 1997) – to choose to reject their previous work practices and know-how to quickly 'fit' in. I phrase this as *imagined globality* of game development; a monocultural worldview of universally compatible game development practices that depicts surprises during expats' work adjustments as risks to the process of making games. This places game developers vulnerable to new cultural encounters within work, adding social pressure to achieve the impossible goal of truly seamless work adjustments after migration – enforced either by their peers or by their own self-impulses. This solidifies the isolation of newcomers and thus

increases the likelihood of their re-expatriation (i.e., the barrier to long-term settlement). From the business standpoint, this hinders the long-term retention of talents and obstacles for fresh ideas and innovations (see Figure 3).
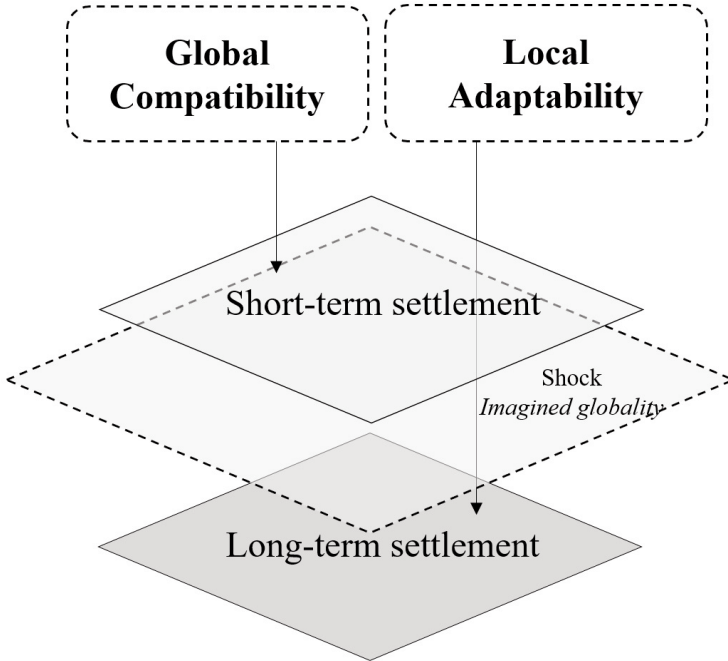

Figure 3: The affect of imagined globality to long-term settlement of game expats.

Towards embracing global and local

Dependency on immediately compatible expat workers in this competitive terrain of talent recruitment adds yet another challenge to reach sustainable game work conditions. Game expats, similar to self-initiated expatriates in other sectors (Al Ariss and Özbilgin 2010; Froese 2012), have a keen interest in career and lifestyle improvements upon migration. Thus, a shortage of human resources and a mounting workload can easily escalate into their long work hours and self-exploitation (Cote and Harris 2021b, 2021a; Creus, Clares-

Gavilán, and Sánchez-Navarro 2020; Edholm et al. 2017). Participant Kor-G, for example, was working extended hours on a daily basis throughout the period of longitudinal interviews. Kor-G internalized the issue by blaming himself for not being able to provide immediate productivity (to quote, "not fit(ting) quick enough") and taking too long to adjust to his new employer's "amazing" and "passionate" approach to game development.

While the industry fiercely competes to hire already compatible and adaptable workers to reach immediate productivity, efforts to train new talent — expanding the talent pool — are being overlooked. This supports the previous report on the alarmingly small margin of junior game expats in Finland (Neogames Finland 2020). In this research, there were four participants who initially migrated to Finland for study. Despite their relatively short period of work adjustment — thanks to several years of living in Finland as a student —three out of the four shared a struggling experience of getting their first game job in Finland, except one who started their career in a non-gaming sector, and then moved to the game industry. Those from non-EU/EEA countries further struggled with their immigration status as Finland's permit policy did not favor junior game developers earning a lower income. This caused negative consequences for their mental and physical health. Furthermore, game expats with multiple migration experiences or with long work experience prior to migrating to Finland shared similar sentiments that there seemed to be fewer junior game opportunities in the Finnish game industry (e.g., traineeship programs) compared to other mobile game-centric regional hotspots. One of the longitudinal participants, Kor-D, a senior game developer, for example, worked extensively long hours throughout the year 2022 because the company constantly failed to find suitable senior level candidates, despite being one of the most successful game companies in Finland. Kor-D tried convincing the executives to hire junior or mid-career staff, and then train them to become a fitting team member. However, his attempt to change the company's long-established hiring policy was not successful, which contributed to his long working hours:

"There are not enough people. (...) There's always a gray area. Nobody asks me to overwork. The company never pressures me on anything. But in the end, we all end up working overtime. (...) Because they fail to hire in time. (Kor-D, 2022-a)."

Therefore, the finding suggests collective societal and industrial efforts for the acculturation of a pluralistic society (Berry 1997; Berry et al. 1989) should be further emphasized in the game workspace. Perhaps now is the time for Finnish game studios, especially the established industry leaders, to solidify their new talent-building strategies as a corporate social responsibility and build access to alternative talent pools. Furthermore, local game ecosystem stakeholders — the industry, institutions, organizations, and academia — should collectively work together to alter the negative depiction of cultural encounters in game work. Here, emphasizing "soft skills" in the workspace to help embrace new practices, new talent, as added insights and interventions should be encouraged. This could be implemented in the form of campaigns, education, and subsidies for risk management and *stress-inoculation* (Dyal and Dyal 1981): Building the industry's tolerance of risk, and assisting its workers to cope more effectively with the acculturation stress. Trans-local collaborations that could safely expose potential game expats to various local game development practices prior to migration (e.g., cross-cultural events, game jams) could also be a way to help game developers to be prepared. Here, the message should be catered carefully to offer comfort and assurance regarding cultural encounters, that *it is okay to be surprised*.

LIMITATIONS

The study was conducted primarily relying on self-reported cases in the form of interviews, which only offer a snapshot of the phenomenon of game workers' migration. Perhaps further ethnographical approaches, for instance, observation and diaries, may benefit future studies to acquire a deeper understanding of game

development work cultures. Another limitation worth mentioning is the over-represented gender aspect in the data, with a significantly higher number of male (n=25) than female participants (n=4), even more so than the industry's gender ratio, despite the interviewees being all recruited voluntarily. It could be that the male-dominant atmosphere in the game industry might have discouraged people who identify with other genders from participating in this study, which could be worth further critical inquiry.

CONCLUSION

The findings show that game expats perceive the technical practicalities of developing games as being generally homogeneous across the world due to the common usage of game development tools (e.g., game engines, platforms, software). Therefore, on the one hand, one's *compatibility* to mainstream digital technical practice positively affects game expats' hiring, career, and motivation to expatriate for newer opportunities – whereas, having niche technicalities are regarded as a risk. The game industry's fast-changing trends also increases the motivations of game expats to retain a nomadic lifestyle (i.e., positive to expatriate, and re-expatriate). But on the other hand, game expats frequently witness various non-technical interpretations of practices upon migration. This includes different interpretations of practices previously believed to be uniform, such as communication, leadership style, implementation techniques, and social norms of communication and decision-making that are different from country to country (and company to company). As such, *adaptability* to those local interpretations of practices bring social connectedness with the host country and the motivation to stay (i.e., positive to settlement).

Dealing with both global and local factors, game expats' work adjustment after migration naturally takes time – several months or years. However, the data indicate there are expectations for immediate productivity within the industry that result in expectations of seamless adjustment, and thus, a hegemonic myth of *imagined globality* – expecting a homogeneous way of making games. This situates

cultural encounters and surprises as something that should be avoided – instead of the natural process of tryouts when two distinct cultures meet. This leads game expats towards the pathway of *assimilation,* rejecting their prior practices while internalizing their migration stress to adapt to the new workplace quickly. Furthermore, the industry's competition to recruit an already compatible and adaptable workforce to reduce business risk leads to concerning work conditions (e.g., overwork) and further stratification of its workers (e.g., juniors vs seniors).

This calls for joint actions from stakeholders in the Finnish game ecosystem to de-stigmatize cultural encounters, away from imagined globality and build tolerance – that *it is okay to be surprised*. Traineeship programs, community efforts and events, and onboarding programs with trans-local components (e.g., local-to-local exchanges) to help game developers to build their cultural tolerance could be further emphasized. Such efforts to educate, train, coach, and consult current and future game developers in a multicultural work environment — both natives and non-natives alike, will equip individuals to compromise their differences rather than fear the potential immediate consequences. This in turn will benefit the overall game industry with a diverse and further inclusive game work culture and new and larger talent pools to draw from.

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APPENDIX 1 – Immigration policy in Finland

Below is the immigration status of game expats and the procedures that the employer must comply with to import their talents to Finland, which is important as a basis for understanding the work-based migration in the Finnish game industry. The information is

retrieved from the Finnish Immigration Service (https://migri.fi/, retrieved from June 2023), and further supplemented from the participants' and my personal experience as non-EU/EEA migrants in Finland.

Non-EU/EEA citizens	**Work Permit ("residence permit on the basis of work")** is required to start working in Finland. The permit application requires proof of a work contract that specifies the income per month, that meets the minimum income requirements specified in the collective agreement that applies to the expats' employment relationship. If there is no collective agreement applied or if working part-time, the salary must be at least 1,331 EUR per month as of 2023. The employer must provide a valid reason for hiring a foreigner, to the Finnish Employment and Economic Development Office (TE Office), and the employment conditions must comply with current provisions of the law. This includes labor market testing, which means the employer must demonstrate to the TE Office that there is currently no available labor force within a reasonable time in Finland or within the EU/EEA for the work in question (henceforth, whether the work can be prioritized first to the job seekers that are already in Finland/EU/EEA). Depending on this review process, the permit processing time could take 2-6 months. The longest processing time among the participants in this paper was two years, due to an incorrect decision by the Finnish Immigration Service, which led to a court case.
	Specialist Permit ("residence permit for specialist") can be granted for those expecting a higher income. This requires proof of a full-time work contract with a minimum salary of 3,473 EUR per month and a university degree, or equivalent expertise. If the applicant for a Specialist Permit is already in Finland, they are able to work a maximum of 90 days prior to the permit being granted. This permit does require screening by local authorities, which eases the bureaucratic burden for Finnish companies recruiting their foreign talent. The monthly salary of 3,473 EUR per month is equivalent to that of a mid-level game developer with at least 3-5 years of work experience (Game Makers Finland 2021) . According to the participants in this study, the Specialist Permit processing time is generally about a month — the fastest case only took about a week.
	Permanent Residence Permit can be granted to those who have maintained their Work or Specialist Permit status for at least four years, and who currently still have a valid Work or Specialist Permit that has not yet expired.
EU/EEA citizens	Based on the European Union concept of "free movement of workers," EU, EEA, and Swiss citizens can move freely and seek employment without a Residence Permit or an invitation from an employer. They are not required to provide proof of a full-time work contract before or after relocating to Finland. However, in certain circumstances (e.g., they have a non-EU/EEA family member that needs a residence permit) they may still have to provide their proof of income and tax payment in Finland to verify that they are not placing a burden to the Finnish social security.

Table 1: Overview of immigration in Finland that affect game expats.

APPENDIX 2 – Participant list

ID	Role	Current country	Home country	Years in Finland at the beginning of the interview	Years of game work experience at the beginning of the interview	Gender	Worked in game other than home country and Finland
Kor-A	Manager	Finland	South Korea	1-3 years	16+ years	M	Yes
Kor-B	Progra mmer	Finland	South Korea	1-3 years	16+ years	M	Yes
Kor-C	Artist	Finland	South Korea	1-3 years	7-9 years	M	Yes
Kor-D	Designer	Finland	South Korea	4-6 years	4-6 years	M	No
Kor-E	Manager	Finland	South Korea	7-9 years	16+ years	M	Yes
Kor-F	Communica tion	Finland	South Korea	1-3 years	1-3 years	F	No
Kor-G	Programmer	Finland	South Korea	4-6 years	16+ years	M	No
Kor-H	Manager	Finland	South Korea	1-3 years	4-6 years	M	No
Kor-I	Marketing	Finland	South Korea	1-3 years	4-6 years	F	No

Table 2: The list of longitudinal participants.

ID	2020	2021		2022		2023
Kor-A	Y	Y	Y	Y	Y	Y
Kor-B	Y	Y	Y	Y	Y	Y
Kor-C	Y	Y (Exit)				
Kor-D	Y	Y	Y	Y	Y	Y
Kor-E	Y	Y	Y	Y	Y	Y
Kor-F		Y	Y	Y	Y	Y
Kor-G		Y	Y	Y	Y	Y
Kor-H			Y	Y	Y	Y (Exit)
Kor-I			Y	Y	Y	Y

Table 3: Timeline of longitudinal participants.

ID	Role	Current country	Home country	Years in the current country at the beginning of the interview	Years of game work experience at the beginning of the interview	Gender	Worked in game other than home country and Finland
A	Artist	West Europe (exited FI)	West Europe	7-9 years	10-12 years	M	Yes
B	Manager	Finland	North America	7-9 years	13-15 years	M	Yes
C	Sound	Finland	West Europe	1-3 years	13-15 years	M	Yes
D	Manager	Finland	Asia-Pacific	10-12 years	7-9 years	M	No
E	Manager	Finland	East Europe	4-6 years	13-15 years	M	Yes
F	Manager	Finland	Middle-East	Less than 1 year	13-15 years	M	Yes
G	Programmer	Finland	West Europe	7-9 years	7-9 years	M	No
H	Programmer	Finland	Latin America	1-3 years	7-9 years	M	Yes
I	Communication	Finland	Asia-Pacific	1-3 years	13-15 years	M	Yes
J	Designer	Finland	West Europe	4-6 years	16+ years	M	Yes
K	Designer	Finland	Middle-East	7-9 years	10-12 years	M	Yes
L	Designer	Finland	North America	1-3 years	10-12 years	M	Yes
M	Designer	Finland	North America	4-6 years	16+ years	M	Yes
N	Designer	Finland	Asia-Pacific	1-3 years	13-15 years	M	Yes
O	Operation	Finland	North America	1-3 years	4-6 years	M	Yes
P	Programmer	West Europe (exited FI)	West Europe	10-12 years	4-6 years	F	Yes
Q	Artist	Finland	East Europe	1-3 years	Less than 1 year	M	No
R	Artist	Finland	North America	Less than 1 year	14-16 years	F	No
S	Designer	Finland	Latin America	10-12 years	10-12 years	M	No
T	Manager	Finland	Middle-East	1-3 years	7-9 years	M	No

Table 4: The list of one-time participants.