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Assembling a game development scene?

Uncovering Finland's largest demo party

ABSTRACT

The study takes look at Assembly, a large-scale LAN and demo party founded in 1992 and organized annually in Helsinki, Finland. Assembly is used as a case study to explore the relationship between computer hobbyism – including gaming, demoscene and other related activities – and professional game development. Drawing from expert interviews, a visitor query and news coverage we ask what kind of functions Assembly has played for the scene in general, and on the formation and fostering of the Finnish game industry in particular. The conceptual contribution of the paper is constructed around the interrelated concepts of scene, technicity and gaming capital.

KEYWORDS: *Assembly, Demoscene, Finland, Industry, Scene, Technicity, Capital.*

INTRODUCTION

For someone interested in computer games and related hobbyist culture, LAN and demo parties were often the only way to meet like-minded individuals in the early 1990s. Twenty years later, the ubiquity of networked communication has significantly changed both digital gaming and the cultures around it. Nevertheless, the continued existence of local gaming parties indicates that they still hold a particular significance for a notable audience. This article looks at Assembly, a large-scale annual LAN and demo party founded in 1992 and organized annually in Helsinki, Finland. The two decades of Assembly allow us to explicate the appeal of a long-standing gaming event and to explore the larger narratives of continuity and change in the history of Finnish computer game culture.

While previous studies have addressed Finnish demoscene (Saarikoski, 2004; Reunanen, 2010), the role of Assembly as one of its corner stones might benefit from a closer scrutiny, giving us additional information on the cultural significance of the event in Finnish computer entertainment landscape. Furthermore, it is a widely held belief that the Finnish demoscene acted as the seed bed for the game industry to come (Saarikoski & Suominen, 2009) and that Assembly as an internationally significant competition ground has a special place in this development. Drawing from expert interviews, a visitor query and news coverage we ask how Assembly and its role has changed over the years and what kind of functions Assembly has played on the formation and fostering of the Finnish game industry.

For a generation of Finnish programmers, demos – showcase "videos" incorporating sound with computer generated imagery rendered in real-time – acted as the highest demonstration of programming talent. Whereas typical demoparties of the late 1980s and early 1990s were fairly small scale affairs, Assembly gathered all the smaller groups together for a unified event. Both the rising popularity of the demo hobby and the growing public interest led to rapid growth of the event: from 700 attendees in 1992 to 4500 in 1995. These days the event is held at Hartwall ice hockey arena and lasts four days. Most visitors – roughly 5000 per event – bring their own computers and purchase a table spot with a very fast Internet/LAN connection and a power socket. The event consists of the festival, competition categories in the field of digital arts (demos, graphics, music, etc.), various gaming competitions, live concerts, expert seminars, game industry recruitment desks and other attractions.

All in all, for over twenty years Assembly has brought together gaming hobbyists, notable programming talent and an atmosphere that fosters competition and creativity in a unique way. Although the Finnish context is surely unique, we feel that analyzing the dynamics that define the ideal subject within the described scene and how they change over time can have larger significance for the study of game cultures. At the same time, the study contributes to the growing body of comparative research on cross-sectoral skill transfer and the origins of national game industries (see Izushi & Aoyama, 2006).

ASSEMBLY AS A SCENE OF TECHNICITIES

Game cultures have been studied from a variety of perspectives in the past years (Shaw, 2010). Although many scholars have used 'subculture' to describe gamers and gaming activities, according to Gosling & Crawford (2011, p.141) the use of the term has rarely been critically reflected. Some of the recognized problems with the idea of subculture are related to underestimating the fluidity of social groupings, seeing them as clearly distinguished from wider society, committing to relatively static

conception of class distinctions and underemphasizing the economic perspective (Weinzierl & Muggleton, 2003; Gosling & Crawford, 2011). More specifically, the usefulness of the concept of subculture has also been challenged within explaining the connections between gameplay, emerging cultures and game industry dynamics (Consalvo, 2007, p.3-4). To work towards an alternative, the conceptual contribution of the paper is constructed around the interrelated concepts of scene, technicity and gaming capital.

Gosling & Crawford (2011) suggest that 'scene' helps us better understand "how gaming and game-related narratives are located within the ordinary and everyday lives of gamers but take on greater significance within certain physical locations" (p.135). As such it provides an adequate starting point for studying Assembly participants, who for most of the year remain part of this scene only through a sense of identity, but at certain times and in certain places – especially once the annual event is happening – openly celebrate the particular scene.

According to Dovey & Kennedy (2006) 'technicity' encapsulates "the connections between an identity based on certain types of attitude, practices, preferences and so on and the importance of technology as a critical aspect of the construction of that identity" (p.17). The authors further describe a 'dominant technicity' typical of game development that foregrounds technical virtuosity and a deeply gendered desire to create imaginary, controllable worlds. The discussion here sides with the hacker ethos (Levy, 1984), of which demoscene too is a clear progeny with its sheltered community of whiz-kids constantly striving to outperform technological boundaries. The case of Assembly allows us to observe the different and constantly changing technicities at work.

Furthermore, Assembly crowd actively resists easy generalizations. As pointed out by Reunanen & Silvast (2009), demoscene members may not actually be the most enthusiastic early adopters of technology. Instead, many of the Assembly participants actively negotiate and play with their scener identities by adopting a particular retro sensibility, or by mixing together ingredients from digital games, scene history, popular culture, internet memes and various other sources. All this is connected to Consalvo's (2007) idea of gaming capital, a dynamic social currency that is accumulated through playing and being knowledgeable about games. The case of Assembly nicely highlights how the sources and ways of acquiring gaming capital are more diverse than many assume.

UNDERSTANDING ASSEMBLY - METHOD AND DATA

To get a multi-perspectival picture of Assembly, our methodological approach is threefold. First, we conducted a series of thematic interviews.

Interviewees were handpicked to incrementally add on each other's knowledge: an Assembly organizer, a demoscene veteran, a game journalist and game developers with an Assembly background. Reaching the informants was relatively straightforward, as the key people are still alive and easily accessible. Following an oral history approach, some caution needs to be exercised here though. Instead of only seeking "real facts", we rather use the interviews on tracing the narratives and cultural values that can help explain the mentalities of Assembly participants over the years.

Second, we also conducted an online survey for the Assembly visitors. Our focus was both to gather general information on Assembly goers and to gain insight on reasons to participate the festival. The online survey (n=92) was conducted in 2011 in association with the event organizers. The average age of the respondents was 22,7 years and three quarters of the respondents were over 18. Nine out of ten respondents were male. The survey helps us better understand the reasons why entirely new generations find their way to Assembly. In addition, we can draw on participant observation and informal discussions, both carried out at Assembly over the years.

Finally, in order to contextualize both the interviews and the survey data, we examined the media coverage the event has received during the years. The analysis is based on Assembly-related newspaper stories published in *Helsingin Sanomat* (*HS* from now), the largest subscription newspaper in Finland, and covers the stories from the first published news piece in 1995 to the present day. Although the news stories often recycle a common set of stereotypes, they at the same time document the changing relationship to industrial actors in general, and professional game development in particular.

THE COMMERCIALIZED EVENT

Saarikoski & Suominen (2009) point out how demoscene has often been portrayed as a movement of "altruistic multimedia hackers fighting their way through the harsh realities of the entertainment business" (p. 30). Following this line of thought, our analysis begins by exploring the commercial aspects of Assembly. Interestingly, the interviews effectively debunk the romanticized accounts by highlighting how already the initial rapid growth led to readjustments toward more commercialized event. This was mostly visible through Assembly attracting sponsors already in its first year, 1992. The sponsors were mainly hardware manufacturers, some of which were offering free devices (for example sound cards) to demo builders, most likely to advertise their products.

The sudden emergence of a community of potent programmers, graphics artists, and sound designers meant also that companies, even from as far as the US, started to view Assembly as potential venue for hiring work force. Graphically more impressive than the digital games of the day, demos were seen as perfectly suitable CV for a variety of positions.

During the late 1990s when the "IT bubble" started to form and practically any IT related experience was a guarantee for employment, this development grew only stronger (Aakko, 2011). Not confined to demoparties, the most celebrated demo builders were often contacted by domestic and foreign companies directly by phone or email to discuss job opportunities (Pasula, 2011). Already in 1996, *HS* reported how the game industry recruiters actively scout the demoscene gatherings. According to the news story, the motive of many young demo makers is to find employment in game development or computer graphics (Backström, 1996). In 1999 HS highlights how the "hunting season for codemasters" is underway. The local software company Data Fellows was reported to lure potential recruitments by arranging a special screening of the latest *Star Wars* episode (Rainisto, 1999). Another popular strategy of gaining attention was (and still is) through the sponsored competitions.

Overall, Assembly competitions highlight and celebrate extraordinary technical virtuosity and define a particularly skillful ideal subject within the scene. The general aim is to create something fascinating "from the scratch" and to see how much one can "get out of the given devices" (Korhonen & Alanen, 1996). It is also highlighted how "the gurus" for example use no graphical interface in order to optimize the performance of their hardware (Kaihovaara, 2001). This particular connection between technology and identity, technicity, then becomes the basis for affiliations with like-minded peers (Dovey & Kennedy 2006, p.64). The quest for succeeding in competitions and thereby getting your work to the big screen of the Assembly main hall, highlighted both by Korhonen & Alanen (1996) and Kaihovaara (2001), makes visible the dynamics of how fame and subcultural capital operates in the Assembly framework. Altogether, these discourses work to naturalize and legitimize a hegemonic technicity that is competitive, often gendered and not available to everyone.

The stories that connect the sometimes marginal and obscure forms of virtuosity to commercial entities and foreground the potential of getting recruited actively produce a particular kind of 'truth'. It is worth noticing that while the news stories of the recent years appear to take the interconnectedness of demo parties and game industry as given (Mäkinen, 2007; Lappalainen, 2009; Koskinen, 2010), Assembly may not anymore be the most obvious channel to game companies. The exhilarating and electrifying spirit of Assembly supports creativity, collaboration and competition in a unique fashion. At the same time, transforming subcultural capital to economic capital appears seldom as straightforward as suggested by the news stories.

GAMES CRASHING THE PARTY?

Over the twenty years of Assembly, game playing has gradually outgrown demo building. Playing, however, has always been a visible part of demo parties, as games were played already at the first recognized demoparty in 1987. According to Kauppinen there have always been sceners who strongly oppose game playing, those who eventually abandon games for demo building hobby, and those who like to play and carry on doing it (Kauppinen, 2011). These days few attend for demos only – visitors come to spend time on their computers and do a lot of the same things they would normally do with them, including playing and surfing the net, only in a massive local area network with the company of 5000 like-minded people (Aakko, 2011).

Still, gaming in particular has a history of clashing with demo building at Assembly. Nowadays this history is mostly present when the competition demos are screened in the main hall of the venue. As majority of the players play their games here, only stopping for a moment to watch the competition demos, it is common for the audience to complain about the blinking screen lights distracting the show. During one of the 1990s competitions an unknown person yelled "Guaket vittuun!" (Shut your fucking Quakes!), referring to the iD Software LAN game *Quake*, popular among gaming crowd at the time, and famously mispronouncing the first letter of the game, consequently epitomizing the Assembly "feud" between games and demos. Now, every time when somebody lets their screen lights shine during demo competitions – and this happens often – crowd starts to get audibly irritated, somebody eventually barking out the infamous shout.

Here we see how playing games, a part of these people's everyday life also outside this particular event, becomes contested because of the particular location and setting. Certainly the meanings of these physical spaces are not set – remember that Assembly is organized in an ice hockey arena – but it is the social performances within them, that eventually produce their significance and meaning (Gosling & Crawford, 2011). As the idea of "scene" suggests, entering Assembly does not represent a break from one's everyday identity. Still the particular setting can foreground particular behaviors that might feel foreign in other situations. The example also nicely accentuates how the event gives birth to behaviors and traditions that are over the years communicated to new generations of Assembly goers.

In recent years various e-sports tournaments with famous guilds and notable prizes have strengthened gaming as the most immediately visible aspect of Assembly. The development mirrors that of the other major Nordic demoparties, such as DreamHack in Sweden and The Gathering in Norway.

Responding to this, the organizers have updated the event program with game development competitions and seminar talks by game industry and programming professionals. In addition, to accompany the Summer Assembly, there is now also Winter Assembly, dedicated entirely to gaming. When asked about the reasons for participating the event, the two most commonly chosen answer in our survey were 'I was there mainly to watch' and 'I came to play'. As respondents could choose multiple answers, many attended probably for both reasons. However, when asked in a free-form question 'What does Assembly mean to you', only six respondents brought up game playing. Instead, majority of the answers highlighted the social aspects (friends, meeting people etc.) (51 mentions) and the festival program (seeing the demos, the competitions) (33 mentions).

Combined together, these results lead us to conclude that the 'festival' identity of the event has only grown stronger over the years. Already in the pre-broadband years, Assembly not only provided an opportunity to get a lightning-fast Internet connection for one weekend but it was also a unique chance to meet online connections and other like-minded people. These days one could possibly compare the event to a rock festival, in which visitors first and foremost participate for the social aspects of the event, to meet people and especially to feel the connection to the scene.

Traditionally, demoscene has often been portrayed through the distinction between "elites" and "lamers", a clear-cut line between those who have the skills and those who don't (Reunanen & Silvast, 2009, p.298-299). Assembly competitions – not only demo compos but increasingly also game tournaments – still foreground this particular technicity, based importantly on skill and virtuosity. At the same time it appears increasingly acceptable to enjoy the party without taking part in the more demanding activities. Shared activities like playing are instrumental to the feeling of connection, though it would seem that already taking part by watching would give participants some sense of identity. In this respect, the ways of entering the scene are not limited to being competitive and playing well, but the sources of gaming capital appear more diverse than thought.

THE INTENSIFYING RELATIONSHIP TO GAME INDUSTRY

In their study of cross-sectoral skill transfer, Izushi and Aoyama (2006) point out how each national game development scene draws on a different set of creative resources, based on the prior high-skill industries. Whereas the Japanese game industry drew skills from the comic book and animation industries, the US industry evolved from arcades and personal computers and the UK grew bottom-up, largely based on computer hobbyists and self-taught programmers. In this respect, the demoscene-based origins of the Finnish industry result in a rather unique trajectory.

The particular background, including some insider arrogance, is visible in the early approaches towards game development. Already in the first years of the event, game studios from as far as USA sent talent scouts to Assembly. Based on the interviews, demosceners responded in varied ways to these courtings. Syvähuoko (2011) describes how the CFO of Epic, Mark Rein, visited their demo group, Future Crew, trying to persuade them to get into game development. According to Syvähuoko, the members were so "hippie" that they instantly turned Rein down, dismissing his claims of money and stardom. In fact, most early sceners saw demos as a more interesting challenge compared to games, due to the technical superiority of demo graphics.

It is fair to say that most of the early day participants never consciously thought of Assembly as a means to get employed by the game industry – rather, the various careers launched by the demoscene were simply a byproduct of a passionate hobby (Saarikoski, 2004, p.205; Reunanen in Demoscene documentary 2010). Whereas there was no game specific education available (Backström, 1997), the skills needed for demo building, however, mirrored closely those needed for game development. As the demoscene developed during the 1990s, more groups grew interested in making games and even created some game demos.

Having already specialized roles in the development process, demo groups could fairly easily transform into game development teams. Particular skill sets like coding and graphic design transferred easily, whereas others like project management and game design required more training (Petri Järvilehto in Niipola, 2012, p.54). Often, largely related to lacking the appropriate contacts and the required negotiation skills, the groups still found it hard to get their games published from Finland (Renqvist, 2011). Altogether, the hobbyist based background can partly explain the relatively slow start of the industry. Demoscene actively reproduced the outsider hacker ethos and also produced its own esoteric technicities. While some of this cultural capital was relatively easily transferred to game development, the scene mentally remained far from the world of publishers and potential investors.

Later on, the short development span of demo building seemed to translate relatively well to smaller handheld games, popular in Finnish game development especially during the early 2000s. At this point, demoscene and Assembly were already going through a second or perhaps the third generation of demo builders. Because of the growing significance of the digital games culture and the first recognized successes within the Finnish game development scene, this new generation appeared to have a more optimistic view about game industry job opportunities. The mobile games companies of the day had numerous employees with demoscene background and openly hired old friends and demoscene contacts based only on demo resumes (Pasula, 2011). Due to specialized graphics cards and large development teams, games had by now surpassed demos as the leading edge in graphics coding.

Coming into this day, the most visible aspect of the game industry hiring practices in Assembly are the game industry stands. While a lively buzz surrounded the stands of companies such as Rovio and Supercell, some of the older generation developers – despite their own background in demoscene – answered that they would not hire sceners of today, suspecting them having too little patience for the long project times of game development (Syvähuoko, 2011). Or, should they require new work force they would rather utilize their personal connections within the industry, with no need to publicly seek for employees (Kalliokoski, 2011; Syvähuoko, 2011). Overall, the significance of demoscene as the key source for new game industry recruitments has decreased over time (Ilari Kuittinen in Niipola, 2012, p.54). One reason for this is the emergence of formal game development education since the early 2000s. Accordingly, in the present day Assembly the game industry headhunters are accompanied by booths advertising the game development degree programmes (Piirainen, 2011).

Finally, given the described development, we asked the Assembly visitors about their interest in working in the game industry. In the corresponding Likert item in our survey, over half of the respondents told that they were much or very much "interested to work in game development". However, when asked what they had done to achieve this, only a quarter of the respondents reported to have done much or very much about it. Within the free-form answers to "What Assembly means to you?", only four participants brought up some kind of professional motivation for attending the festival. This nicely once more highlights the key points we have tried to make. First, not only games but also the game industry has become an inseparable part of Assembly. Second, skill transfer between hobbyist circles and game development can be identified, but only particular forms of game capital can be converted. Third, technicities cultivated by Assembly lead to various directions, game making being only one domain that can benefit from the scene.

DISCUSSION AND CONCLUSION: THE ASSEMBLY GENERATIONS

Our analysis has revealed a variety of functions for Assembly: a meeting point, a billboard, a distribution channel, a training ground and a melting pot. At a time when there was no formal game development education, Assembly came to act as happenstance school for graphics programming, technical virtuosity, and creativity. As a condensing crossing point, Assembly provided Finnish demoscene and its most talented programmers visibility and a popular channel of circulating works. It formed a pedestal which was observed with special interest, both by the press and talent scouts. Its significance was felt especially during the early scene, before high-speed Internet, when it was the prime opportunity for serendipitous networking, cultural exchange and skill-transfer.

As we have showed, games never stood in true opposition to demos – rather, they offered a natural way to continue the culture of creative programming in a financially viable manner. The Assembly organization has certainly chosen to support this development. By fostering and accepting a certain type of culture and set of values, it has steered and influenced Finnish creative programming to set directions. Exchanging demo programming tips with peers has shifted towards organized game development seminars, while the competitive culture that has been a part of the demoparties from the beginning continues in the e-sports competitions. It would seem, then, that the dominant technicity has largely shifted from demos – previously the most impressive demonstration of programming talent and consequently the most valuable in cultural capital – to digital games, more and more culturally significant, also outside demoparties.

As discussed, these days many visitors attend Assembly to play or simply to meet friends and take a look at the event. Initially more isolated in nature – once described to be reminiscent of "a space surveillance center of the future" (YLE, 1994) – Assembly has surely lost some of its exoticism. If the vast majority of 1990s Assembly goers were young males (Korhonen & Alanen, 1996; Rainisto, 1999), the attendance has grown more heterogeneous in the recent years. Among other things, female participants have taken a more visible and sovereign role within the Assembly crowd (Lindell, 2006). One could say that the scene has grown more accessible and "normal", reflecting the overall development and increased visibility of computer culture.

In an attempt to maintain some of its original flavor, the festival now gives established demo builders the opportunity to purchase special "old skool" tickets for a cheaper price, and there is also a separate area reserved for these visitors. In this "demo ghetto" the average age is reported to be ten years higher than in the general party (Koskinen, 2010). Additionally, many sceners belonging to the "old family" have opted to meet in an unofficial event "Boozembly", arranged outside the Assembly venue. The emergence of "Assembly generations" not only denotes the increasing age range of the scene but also accentuates how an event of this size necessarily spawns a quite a variety of experiences, activities and narratives (for similar findings see also Taylor & Witkowski, 2010).

Using Assembly festival as a case study, we have explored the development of the Finnish game culture in general and its relationship to emerging game industry in particular. We feel that the selected loose framework, utilizing the concepts of scene, technicity and gaming capital has worked relatively well in exposing and clarifying some of the dynamics and potential tensions between hobbyism and professionalism, subculture and industry. Once portrayed through the distinction between "elites" and "lamers", the Assembly scene has grown more multifaceted, flexible and mature. At the same time, the competitions still celebrate extraordinary technical virtuosity.

Some parts of this technicity can be cultivated into game development skills, but transforming subcultural capital to economic capital appears seldom as straightforward as suggested by the news stories. Furthermore, technicities facilitated and idolized by Assembly have always led to various directions, game making being just one possible goal for skillful sceners.

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