

How Those Crackers Became Us Demosceners

Markku Reunanen

Lecturer

markku.reunanen@aalto.fi

Aalto University School of Arts and Design

Abstract

Numerous authors ranging from hobbyists to researchers have tried to explain the roots of the demoscene in their texts. Most often such histories have been brief and almost identical to each other: first appeared crackers with their crack intros, which then evolved into the demoscene during the late 1980s. In this article, I shall reiterate the canonical story and offer new perspectives to the events that led to the purported separation of the two communities. I approach the topic by looking at it from three different angles: first by dissecting the canonical story, then through the recollections of early hobbyists, and finally by comparing the two to the discussions found in contemporary texts. Based on the findings, the divergence between the two scenes was the outcome of a number of parallel developments, and was neither as clear-cut nor rapid as often portrayed.

Keywords: demoscene, crackers, home computers, software piracy

Introduction

The history of the community known as the demoscene dates back to the mid-1980s when the first groups started to appear, and the first crack intros, shown at the beginning of a cracked game, were released. Here, “cracking” refers to the removal and circumvention of copy protection schemes that game companies tried to employ in order to stop users from duplicating the game media, such as tapes and floppies. The intros were preceded by simpler static screens that served the same purpose of telling the world who was behind the release. Later on, the early scene diverged, when some of the hobbyists became increasingly interested in just the intros, leaving software piracy and related activities aside.

Above, we have an example of a story that has been repeated and canonized numerous times in

various publications ranging from disk magazines to academic papers (for example Leonard 1994; Gruetzmacher 2003; Saarikoski 2004, 191–192; Tasajärvi et al. 2004, 12–15). Most of the authors who have written on the topic were not part of the original scene themselves, so they have had to rely on second-hand sources where conflicting details have already been left out. My aim in this paper is to trace the origins of the story and offer a new perspective to the various reasons that led to the gradual separation of the two scenes.

As a matter of fact, even the too evident assumption that there ever was such a split should be brought into question, as several groups started with cracking and retained legal and illegal activities side by side for quite a while (Kauppinen 1991; Polgar 2005, 99–101). As another counterexample, during the last few years the demoscene has started coming into terms with its roots, and crack intros made by legal demo groups have started appearing again – although they should be considered more as nostalgic or ironic references to the wild past rather than to the realities of contemporary software piracy (see *The Commodore 64 Scene Database (CSDb)* for recent examples). Nowadays, one of the most active all-platform demo websites, *Pouet.net*, also features crack intros as one of its numerous production categories.

The concept of a “scene” requires some attention before moving any further. In this article, I shall use the word *scene* as an umbrella term that encompasses all the related activity and refer to specialized communities as *the demoscene* and *the cracker scene* (also known as the warez or illegal scene, among other names) for the sake of clarity. Arguably, the distinction is somewhat artificial, as the members of both have simply considered themselves to be *in the scene*. In other contexts, many other communities have been referred to as scenes, such as the graffiti scene, clubbing scene, or punk scene (for example, Straw 1991; Hitzler & Niederbacher 2010). Sociologist Michaela Pfadenhauer provides the following general definition for a scene in her article *Ethnography of Scenes* (2005):

Thus we refer to a thematically focussed cultural network of people who share certain material and/or mental forms of collective self-stylisation and who stabilise and develop these similarities at typical locations at typical times as a scene.

When applied to the demo and cracker scenes, Pfadenhauer’s definition raises some relevant

questions: for example, what are “self-stylization” and “typical locations” in the case of networks that are largely virtual by nature? There is hardly any demoscene attire that would instantly reveal the identity of its members to others, unlike in many other scenes that are outwardly more pronounced. Therefore, the self-stylization must be mostly mental – which it is. As to the typical locations, virtual spaces, such as online discussion forums, need to be considered in addition to physical spaces. The flip-side of *similarities* inside a scene is that there must also be *differences* to other scenes that ultimately set them apart.

The demoscene has, at times, been discussed in terms of a subculture (for example Roininen 1998, 69–79; Saarikoski 2001). Omitting the elusive definitions of parent, counter-, and subcultures here, it is still evident as to how subcultural studies are a valuable frame of reference when discussing scenes, since the two concepts (i.e. scene, subculture) are so clearly related and, at times, even used interchangeably (cf. Pfadenhauer 2005). As a well-known example, Dick Hebdige, in his book *Subculture: The Meaning of Style* (2010/1979), traces the genealogy of British subcultures ranging from teddy boys to punks, and shows how they have preceded and influenced each other. Even though British subcultures seem spectacular and deviant when compared to demo and cracker scenes, the idea of evolution and lineage are equally applicable – scenes, subcultures and communities do not appear out of nowhere.

David Muggleton (2004/2002) has criticized the work of Hebdige and his peers¹, stating that they fail at understanding the indigenous viewpoints of actual subculture members (3). Valuable points made by Muggleton are that a subculture should not be seen only as a response to economic and social changes, as many earlier studies tended to view them (9–10), and that the role of an individual in a subculture may be fluid and fragmented (107–128). Both Hebdige (2010/1979, 92–99) and Muggleton (2004/2002, 131–154) recognize the importance of *incorporation*, where deviant subcultures are defined, trivialized, and turned into commodities by the parent culture in order to render them harmless. In the case of the demo and cracker scenes, such trivialization has frequently occurred in, for instance, newspaper articles dealing with demo parties². However, Douglas Thomas (2002, 148–160) states that hacker culture has proven to

¹ Hebdige represents the Birmingham Centre for Contemporary Cultural Studies (CCCS). According to Ken Gelder (2005/1997, 81–85), CCCS studies were founded on Marxist theories and tended to focus especially on working-class subcultures. See Clarke (2005/1981) for more discussion on their approach.

² Demo parties are typically described by the press, somewhat condescendingly, using expressions such as

be largely resistant to incorporation due to its technical nature and existence in a highly fluid electronic medium. Neither Hebdige's nor Muggleton's case studies included digital subcultures, so they do not mention technological change as something that affects subcultures, but in this study its role, quite obviously, cannot be omitted.

When thinking of the motivation behind the scene activities, Sarah Thornton's Bourdieu-inspired concept of *subcultural capital* offers a useful theoretical frame of reference. According to her definition, subcultural capital defines an individual's status in the eyes of the other members and can be earned through different means, such as attire, ownership of valued artifacts, subcultural knowledge and "cool" behavior (Thornton 2005/1995). Similar traits have been observed in studies dealing with digital culture, for example in Alf Rehn's (2004) article, where he discusses the practices of the warez scene and refers to them as "honor economies". Meritocracy is also heavily present in the related cracker culture (Vuorinen 2007) and the demoscene (Reunanen 2010, 33–35).

In the following sections I will explore the shared history of the two scenes from three different angles. First, the focus is on the origins and forms of the canonical story, which highlights how the scene has seen itself, presented itself to outsiders, and how outsiders, in turn, have interpreted the history. The second set of source material, consisting of interviews of first-generation sceners, brings forth rich details that have been lost in the standard story. Lastly, I will look at contemporary texts of the late 1980s and the early 1990s in order to illustrate how people experienced the ongoing developments, in contrast to later recollections that can easily be colored by nostalgia or belittling³.

Reading the Story

The scene started to document its roots early on, when the first histories and personal recollections were published on diskmags (disk magazines) in the early 1990s, and a few years later on the World Wide Web. One of the best-known descriptions can be found in the *PC Demoscene FAQ*, originally written by Thomas "Tomaes" Gruetzmacher in 2003. Section 2.3 "Where does the demoscene come from?" starts with crack intros and software piracy, after

"the nerd heaven". For some examples, see Yle.fi 2012; Taloussanommat Digitoday 2013.

³ In my own fieldwork, I have frequently noted that former sceners are not always willing to discuss their past, which they may consider embarrassing or something that is best kept secret.

which follows a description of the divergence:

In the late 1980s the legal part of the cracking and warez scene slowly drifted away from the illegal part. Intros became more advanced, (mega-)demos (several advanced intros linked together) appeared. The demoscene was born... sort of. A few individuals are still active in both, demoscene and warez/cracking scene.

The cracker scene is seen as the predecessor of the modern demoscene and, somewhat exceptionally, even the remaining link between the two is mentioned. There is no clear explanation as to why the two communities started drifting apart exactly, but the illegality of the warez scene is mentioned twice, which hints at one possible reason. According to the description, the demoscene “was born” and took the trade forward, which creates a distinction between old and new: crackers are portrayed as aging forefathers who are still alive but, at the same time, passé. Another similar account was provided by a long-standing demoscene activist, Jim “Trixter” Leonard, in *PC Demos Explained* (1994), where he wrote as follows:

Around this time, a gradual shift occurred, from people cracking games to writing graphic/sound demonstrations that showed off the computer they had just learned to program. Sure, cracking games was still popular, but some people decided that learning about the machine and using it as a tool for creativity was "cooler" than cracking one dime-store game after another.

In this case, the legality of the hobby is not seen as an important factor. Instead, Leonard emphasizes the creative nature of demo programming as opposed to the repetitive cracking of low-quality games. Compared to the *PC Demoscene FAQ*, Leonard’s text is significantly earlier – the first version appeared already in 1994 and was updated until 1998. In the early 1990s the self-awareness of the demoscene was on the rise, which could be observed, among other things, in its attitudes towards computer games (Reunanen 2010, 29–30, 77). Early on, games were a natural part of scene activities, but became a taboo when the community started defining its borders and aggressively distancing itself from other communities occupying the same computer hobbyist domain (ibid.). In this light, the older description of the events resonates well with other

sentiments of the time, whereas in 2003 there was already less need to emphasize the uniqueness of a firmly established community.

Several authors of demoscene-related articles and books have included a variant of the canonical story in their texts, which has further strengthened its status. When comparing the versions provided in four different publications (Roininen 1998, 30–31; Burger, Paulovic & Hasan 2002; Saarikoski 2004, 191–192; Tasajärvi et al. 2004, 12–15) it becomes evident how similarly the roots of the demoscene are described: first there were crackers with their intros that later – somehow, and we are never told exactly how – evolved into demos. The authors have not invented the histories; instead, they are based on first- or second-hand accounts provided by demoscene members themselves, which goes on to illustrate how deeply the community itself has adopted the standard story. Between the lines one can also sense nostalgia that colors the recollections⁴.

There are two notable works that describe the early days of cracking and software swapping in detail. The first description can be found in *Freax: The Brief History of the Demoscene* by Tamas Polgar (2005, 40–62). Even if Polgar’s approach is rather informal, it provides relevant insight into the practices of the early hobbyists, such as copyparties, international swapping, and cracker magazines. According to an interview with Grendel⁵, the separation of the demo and cracker scenes started as early as 1988–1989 and became stronger during the following two years (ibid., 57). The other notable peek into the history was written by Patryk Wasiak, whose *Illegal Guys* (2012) documents the rise and fall of what he called “the illegal scene”. Wasiak links the increased interest in legal demos directly to the West German police raids of the late 1980s, where illegal software collections got confiscated⁶.

Owing to their common origin, early crackers and demosceners shared many traits, such as groups, handles, tools, parties, and communication channels. Therefore, it is easier to look at the differences between the two rather than the similarities. One deciding factor, indeed, is the

⁴ For examples of early scene nostalgia, see *Maggy* #10, #11 and *R.A.W.* #1.

⁵ Jukka O. Kauppinen, also known for his work in the Finnish computer press, especially the *MikroBitti* magazine.

⁶ In Finland, similar procedures started in the 1990s and were targeted mostly at pirate BBSs (Saarikoski 2004, 330–335).

relationship to law enforcement that started interfering with software piracy in the early 1990s, when copyright legislation started catching up with digital products (Saarikoski 2004, 319–337; Wasiak 2012). Such negative publicity and the fear of sanctions (Zine #2 and #3) can be seen as two probable reasons as to why the demoscene has emphasized its creative aspect and, at the same time, distanced itself from software piracy.

According to Vuorinen (2007), the cracker system can be seen as an offspring and a mirror image of the commercial model, clearly different to the open source movement that has its roots in the original hackers of the 1950s and 1960s (cf. Levy 1984). The cracker economy, in its purest form, is inherently linked to the commercial world, since it needs a constant influx of commercial software in order to function, whereas the demoscene is more self-sustained by nature because it produces its own artifacts: demos. Even though the modern warez scene, as described by Rehn (2004), differs from the pirates of the 1980s, the two can still be considered as parts of the same continuum.

First-Hand Accounts

As the second part of the study, I conducted six interviews with long-standing scene members who had started their career in the 1980s on the Commodore 64. It turned out somewhat difficult to recruit interviewees, as many of the pioneers are hard to locate after almost thirty years, and because there still seems to exist a certain veil of secrecy that makes it hard for an outsider to ask around. My own role as a demoscener and researcher – reflected on the title of the article, too – created a setting where I was regarded as an outsider by some representatives of the early cracker circles. The insider–outsider issue has been further elaborated by Rhoda MacRae (2007), who divides researchers’ approaches into three basic categories: outsider-in, outsider-out, and insider-in (see also Hodkinson 2005). Hebdige (2010/1979, 139), too, noted how subculture members were often opposed to any attempts to formally define them.

The interviews took place online, some by email and some on Internet Relay Chat (IRC). The respondents represented four different nationalities: two Finns⁷, two Swedes, one German, and one U.S. scener who could provide a rare view to the otherwise chiefly Eurocentric scene. The personal recollections of O’Hara (2006) and Savetz (2012) shed some further light on the

⁷ The interviews with Finns were conducted in Finnish. Translation of the quotes by MR.

American BBS and pirate scenes, while most other authors appear to have focused on the hacker culture (cf. Levy 1984; Taylor 1999; Thomas 2002).

When compiling a typology of the answers, it soon became evident that the Eurosceners' answers were mostly similar to each other, whereas Jon, the American interviewee, had rather different views on the events altogether. One notable difference was how software piracy went online in the U.S. earlier than in Europe, where mail-based swapping of floppies was still relevant in the early 1990s (cf. O'Hara 2006; Savetz 2012). Jon's low interest in demos is in line with the common notion of the demoscene being a mostly European phenomenon. As another example of national differences, the small size and geographical fragmentation of the Finnish Commodore 64 scene was emphasized by both Finns, Grue and Micron. The search function of *CSDb* finds 188 Finnish groups which, indeed, looks like a modest figure in comparison to Sweden (571) and Germany (1,493).

Jon's recollections go back as far as 1984, when the Commodore 64 scene was only starting to take shape. As a curious detail, he mentioned how his first group, Apple Commodore Connection (ACC), was modeled after some earlier Apple II crews. Apple II crack screens (see Figure 1 for an example), which could be described as messages and defaced title screens attached to pirated games, started appearing around 1981, and can be regarded as predecessors of later flashy crack intros. A large collection of the first screens can be viewed online at Jason Scott's collection *Apple II Crack Screens*.

The interviewees described the 1980s scene as active, colorful, competitive and elitist. According to Grue, after the turn of the next decade, the community started becoming more organized, and small meetings grew into large parties. There was a constant influx of new people, and at the same time some first generation sceners already started to retire due to work, studies, family, and loss of interest – some even left after getting busted. As an external factor, the Commodore 64 was starting to disappear from the market towards the end of the 1980s and was getting replaced by the Commodore Amiga and IBM PC Compatibles, which affected the scene, too: all of the respondents recalled people migrating to another platform, mostly to the Amiga (cf. Saarikoski 2004, 134–140, 389; Polgar 2005, 99–111; Botz 2011, 107–114). Comparable migrations (Amiga–PC, MS-DOS–Windows) have repeatedly taken place ever since. What

might appear as a simple case of purchasing a new computer is in reality a complex negotiation process that affects individuals and the community at large in multiple ways. Even though new hardware is “better” in absolute terms, it needs to be appropriated before it can be accepted. (Reunanen & Silvast 2009.)



Figure 1. The crack screen of *Destiny* (1985), an Apple II adventure game.

Based on the interviews, there were no sharp borders between different activities before the 1990s: cracking, swapping, intro coding and demos coexisted side by side. While some programmers were involved with all of the above, it was also common to specialize in, for instance, cracking only. Thus, intros could be created by another specialist, not the cracker himself, which provides an interesting comparison point to the canonical story: sceners did not somehow “become” interested in pure audiovisual programming, as there were such people right from the beginning. The early 1990s saw the rise of legal demo-oriented groups and sections, but there had been such groups and individuals even earlier (cf. Polgar 2005, 57). Of my interviewees, Bacchus mentioned two groups, Horizon and Ian & Mic, as examples that were not involved in cracking, whereas Bitbreaker stated that he was not interested in the illegal side, and Grue told that his group at the time (Beyond Force) started focusing solely on demos towards the end of the 1980s.

Swapping was an integral part of the early scene and all of the respondents had, at least initially,

been involved in it. So far, scene histories have mostly focused on the three main roles involved in demo creation: coders, graphic artists (“graphicicians”) and musicians. The often overlooked role of active swappers in the success of a group was much more pronounced in these interviews:

There were a lot of us, and I would argue that we were the grease in the scene. (Jon)

The swappers role was really important back then (altho it felt they didnt get the thanks they deserved). (Pantaloon)

The impression conveyed by these responses is that swapping, too, was a highly competitive trade where speed, quality, and the number of connections were essential if one wanted to gain recognition. Grue, who, according to his statement, did not even have a significant number of connections still stated that he had to spend “a terrible amount of time” to keep up-to-date. Likewise, Micron recollected sending a copy of the same floppy to around a hundred other swappers, and how some BBS traders eventually burned out and quit the scene altogether. Sceners involved in more creative activities did not necessarily regard swapping highly, as illustrated in the quote above and a statement by Micron, where he claimed that among artists swappers were “of course not appreciated”. The same schism still popped up in 1993 in *R.A.W.* #5, where Vastor lamented the situation in his article *Are swappers lame?* The reason for this disparity is most likely that a successful swapper could only demonstrate social instead of technical skills⁸.

Police raids were already mentioned in the previous section, but the police was not the only institution that cast its shadow on swappers. As mentioned by Bitbreaker and Micron, it was a common practice for mail traders to “fake” (reuse) stamps for saving on postage, which could lead to trouble from the postal service. The busting of high-profile or close connections would send a shockwave throughout the community, as in the following cases:

These are sort of stupid to think about now, but there was always rumors of guys getting

⁸ Technical skill was highly appreciated already by the early hackers (Levy 1984). Another point of comparison is the concept of “hard mastery”, which, according to Sherry Turkle (1984, 101–115) is more typical for male than female programmers.

busted, phreakers ratting out other phreakers, or software houses demanding user lists from BBSes and all sorts of nonsense that a 14 or 15 year old would easily believe. So I would put my codebooks and warez collection up in my ceiling tiles “just in case.” (Jon)

But I happened to be a user at the JRC, so when it got busted I got the creeps. I hid all my floppies for a couple of months. (Micron)

The wealth of detail revealed in the personal reflections proves that there is still plenty that has escaped demoscene historians so far. In particular, the formation of the early illegal scene is little known, as well as the links between the U.S. and Europe. Another issue that is highlighted by the interviews is how sceners tend to focus on visible figures, such as well-known coders or swappers, and omit less central scene members, such as hangarounds (cf. Muggleton 2004/2000, 82–104). Scene researchers have often inherited the same practice from their interviewees and textual sources, and the less known borders of the community have, thus, remained largely unexplored.

Contemporary Discussions

One more way to go back in time to the late 1980s and early 1990s is to read contemporary discussions of the period. Probably the best source for them is disk magazines (*diskmags* for short) that could be described as scene journalism. Together with the scroll texts found on demos and intros, there is practically no other surviving and as easily accessible collection of contemporary thoughts. I have already used diskmags as a valuable source in earlier studies dealing with the adoption of different computing platforms by the demoscene (Reunanen & Silvast 2009; Silvast & Reunanen 2014). Similar, although paper-based, *zines* have been common among several subcultures, where they have served various purposes ranging from self-expression to social networking (see Duncombe 2005/1997).



Figure 2. *Sex'n'Crime* #10 (1989) main menu.

By reading two of the earliest diskmags, *Sex'n'Crime* (for Commodore 64, see Figure 2) and *Zine* (for the Commodore Amiga) it again becomes clear how games, piracy and demos initially co-existed side by side in the scene circles. Both of these mags originated in Germany, which was the center of the Euro scene at the time. *Sex'n'Crime* served the cracker scene and frequently featured game reviews, top cracker charts written by the editors, plus plenty of heated scene rumors. In *Sex'n'Crime* #3 from 1989 there is an interesting statement by OMG, well in line with the discussions of the previous sections:

A lot moved to the Amiga and the others stopped cracking as the police was cleaning Germany. So, many people started coding demos or they just decided to be legal forever and coded a few games.

Moving from cracking to demos, as seen from his perspective, was more of a necessity to avoid sanctions than strive for self-expression. Another possible coping strategy was to move into game programming, which I will shortly return to. Police raids and the busting of high-profile pirates were frequent topics also in *Zine*, which published several articles on the legal status of software piracy in different European countries⁹ (see *Zine* #2 and #3). While *Sex'n'Crime* was mostly an

⁹ The legal status of software piracy varied among different European countries. The reports found in *Zine* were often alarmist and speculative with plenty of uncertainty about legislation and its upcoming development.

illegal magazine, *Zine* represents a transitional diskmag where the shifting focus from cracking to demos can be observed. Already in 1990 and 1991 there were commentaries that would have seemed out of place only a couple of years earlier:

Very soon there won't be any coders who are coding games, no software-companies who sell games on AMIGA, because it's not worth selling them because none is going to buy them and so companies and coders don't get enough money to continue their job. (Action, *Zine* #7)

Powerful Amiga-scene is the only thing that can "cure" Amiga's reputation and amount of programs. You should reduce (or stop) cracking programs. (Pasi Kovanen, *Zine* #11)

R.A.W. (for the Amiga, see Figure 3) and *Imphobia* (for the IBM PC compatibles) can be considered as two representatives of prime demoscene-oriented diskmagazines that were published just before the discussions started moving to the Internet in the latter half of the 1990s. *Imphobia* started as a mixed publication, but became demo-only by 1993. The increasing divergence between demosceners and crackers was aptly captured in the interview of Tom Jansen in *Imphobia* #4 (1992), where he stated: "I have no favorite crack groups, I dislike all of them." A figurative generation gap was opening in the scene, when newcomers joined in and did not subscribe to the values of the pioneers¹⁰:

Newcomers are disease in the scene. They don't know anything about the past, give a strange look if you say Pure Byte, Warriors Of Darkness, Megaforce, Fusion, Ikari or Ackerlight. They don't respect the old guys or old groups. But.... The Scene would also wither without them.¹¹ (Grendel, *Maggy* #10)

The above disdain is clearly linked to two things: power and recognition. Even though the writer laconically acknowledged that the scene would not survive without new members, at the same time it was evident that they should respect the first generation for their accomplishments.

¹⁰ This kind of disdain is nothing new: for instance, Hebdige (2010/1979) mentions how newcomers were accused of trivializing the original mod style.

¹¹ A follow-up and a longer statement on newcomers can be found in *Maggy* #11.

Thornton's (2005/1995) concept of subcultural capital is easily applicable here: the ongoing changes threatened to diminish the value of the capital acquired with hard work and years of participation. To despise something as seminal as cracking can be seen as an approach that let newcomers omit the existing "economy" and define one on their own.



Figure 3. R.A.W. #9 (1995) index view.

One more notable change, also related to the generation gap, is how in the mid-1990s' demoscene mags computer games were an almost unacceptable topic. The demoscene had become increasingly self-conscious and independent, and drew the line between itself and other hobbyists. (Reunanen 2010, 29–30, 77.) In contrast, game development was a theme that did receive attention, as a number of demo authors started viewing it as a possible profession that would let them utilize their skills in the working life, which they had to face sooner or later (for example, R.A.W. #5). On the Commodore 64 the threshold to move into game programming had not also been high (Sex'n'Crime #5, #11). Many of the 1990s game companies do, indeed, have their roots in the demoscene (Saarikoski 2004, 205; Sandqvist 2012). Demosceners getting employed by and founding game companies was – humorously – even lamented, since many of them ceased their demo-related activities shortly thereafter (R.A.W. #9).

Moving from the scene to the working life can be considered as a form of incorporation.

Applying the skills acquired as a cracker or demo coder in the IT industry renders underground

activities harmless and comprehensible from the society's point-of-view and returns them back to the mainstream. A deviant, or at least unknown, lifestyle is trivialized into a sort of pre-school leading to an honorable career. From a subcultural capital perspective, the currency gained in one context is turned into real money in another. The two are more closely related than what it might appear at first: Thornton (2005/1995) observed a similar conversion of subcultural capital into economic capital in her study; several people made their living out of the club culture as DJs, club organizers and clothes designers.

Based on the diskmag articles, it would seem that the demoscene had practically departed from its illegal roots by 1993. However, reading the contact/swapping ads found in their own section paints a somewhat different picture. Among other ads there are references to "hot stuff" or more directly to warez and illegal swapping (R.A.W. #5, #6). There were good reasons to not advertise illegal content publicly, especially if you provided your full contact information, but according to the interviews with former swappers, it was very common that the same people distributed both demos and warez at the same time. For some of the respondents even the whole concept of a legal swapping seemed contradictory¹². As Bacchus put it in his interview: "Never heard of [a] legal swapper."

The developments that took place between 1988 and 1995 are clearly reflected on the pages of the diskmag, even if in a condensed and edited form. The gradual emergence of a purely demo-centered community during the early 1990s is most evident in *Zine* and *Imphobia*, that both changed their orientation during the period. As a counterexample, swappers seem to have acted as nodes that linked the illegal and legal sides together at least until the middle of the decade.

Conclusion

I started by re-examining the canonical birth story of the demoscene and now, at the end, I shall conclude that it should be considered as a constructed narrative that ultimately serves purposes other than historical accuracy. Especially during the interviews it became clear that the purported split is a question of perspective: early cracker/pirate sceners perceived demos as a natural

¹² For an example of the hardships of legal swapping, see *Maggy* #11 and "How to Be Completely Legal" by Obligator.

continuation of their early endeavors, whereas demosceners felt a need to distance themselves from the first generation.

Internal and external factors involved in the divergence are numerous, and no single one of them can explain the course of the events alone. Firstly, the market share of a computer or software platform is a strong external factor that cannot be controlled to any significant degree by the community, but needs to be reacted upon one way or another. The commercial demise of a loved platform, such as the Commodore 64, creates a junction point where an individual has to either stay aligned with the aging computer, or move over to another system and learn new skills – or even drop the hobby altogether. Crackers and swappers, in particular, were directly affected by the disappearance of new software and, thus, needed to reiterate their position. Another external factor is the tightening of the previously loose copyright legislation, which exerted pressure on software piracy that started becoming illegal in many European countries in the late 1980s and the early 1990s. On the other hand, as can be seen in the previous sections, wide-spread alarmism, coupled with unsettling news and rumors, probably had more effect on the community than the actual laws themselves.

The demoscene has often emphasized its creative nature; the best programmers, graphic artists and musicians have been held in high respect by the community. Seen in this light, it is hardly surprising that an increasing interest on creative endeavors has been proposed as a major reason for the split. It seems, indeed, valid to talk about generations here, since the newcomers of the 1990s did not necessarily share the same history with the 1980s pioneers, who often did not extend their scene career beyond a few active years. Real-life pressures and “growing up” popped up frequently as reasons for leaving the circles.

The rotation can be considered as an indigenous reason that explains why the practices of the community were in constant flux. For some, the changes appeared unwelcome or even threatening, since newcomers were not equally impressed by old fame – in other words, the existing subcultural capital. The split has been emphasized by demoscene members as part of a quiet power struggle over who gets to define the scene and decide what is valuable. One example of reiterating the practices is how “pure gaming”¹³ started increasingly turning into a

¹³ Note how the concept of “pure gaming” still leaves open the possibility that even the most devoted

despised hobby in the early 1990s' demoscene discourse, in dire contrast to the first generation, whose activities were inherently tied to computer games.

The pirate–demoscene split illustrates the complex mechanisms of how a community is born out of another, establishes its own practices and repurposes the existing ones. Having said that, it is also evident as to how such a separation is not a binary one: there have been links between the two communities as long as they have existed, and by time divergence can even turn back into convergence. Moreover, the fluidity of sceners' identities lets willing members cross the border between different cliques and generations, and thus identify with more than just one group.

Acknowledgements

I would like to thank the Kone Foundation for supporting the *Kotitietokoneiden aika ja teknologisen harrastuskulttuurin perintö* (Home Computer Era and the Heritage of Technological Hobbyist Culture) project, as well as Yrjö Fager, Tero Heikkinen, Petri Saarikoski, and Antti Silvast for their helpful comments.

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