

# Great Northern Machine Wars: Rivalry Between User Groups in Finland

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The history of computing has been colored by “computer wars” that have raged between competing companies. Although the commercial wars have received much attention, clashes between supporters of different platforms remain largely undocumented. This article approaches the topic from a Finnish hobbyist perspective, focusing on three case studies that range from the emergence of affordable home computers and videogame consoles to modern-day wars.

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Home computer culture has always been marked by a rivalry of user groups. A typical confrontation takes place between the user groups of two competing computer models, such as the competition between PC and Apple Macintosh users. Another well-known case is the struggle of Linux operating system users against Microsoft Windows users starting in the 1990s. In addition to computing platforms, there have been battles between the users of videogame consoles, games (for example, Super Mario versus Sonic the Hedgehog), and even hardware extensions. The conflicts are a permanent part of the computer culture, and they both reflect and affect how users perceive new technology.

These confrontations have often been described as “wars”—for example, the “home computer wars” or the “console wars.” An umbrella term covering both is “machine wars.” The origin of the term is unknown, but it was already in use in the early 1980s, when it referred to the battles between large home computer manufacturers. Similar wars had been going on since the 1950s and 1960s, when IBM dominated the computer industry.<sup>1</sup> The term was popularized by the computer press.<sup>2</sup>

On the one hand, machine wars are about companies trying to outdo their competitors; on the other, they are fought among hobbyists who prefer one platform over another. The two layers are highly intertwined, but they follow a different logic and mean

different things to the participants. Most notably, the grassroots wars are often emotionally loaded, personal, and local. The “flame wars” taking place in social media share several traits with the machine wars.<sup>3</sup> It would be an oversimplification to claim that the users are fighting for the companies because their motives are much more complex than that. So far, most publications have focused on the commercial side of things and in only a few countries,<sup>4</sup> such as the United States or UK, creating a knowledge gap concerning other local histories of computing.

In this article, we focus on the Finnish machine wars ranging from the 1980s to the 2000s using three case studies. Specifically, we seek to answer two main research questions: How and why did machine wars develop in Finland? And what was their impact on the computer culture in general? Our primary sources are computer magazines, interviews, readers’ letters, and online discussion forums. The most important academic source used is the first author’s large-scale study of personal computer hobbyism in Finland from the 1970s to the 1990s.<sup>5</sup>

## **Early Home Computer Era (1982–1989)**

The Finnish home computer market was established in the early 1980s. The state developed an information society policy in the early 1980s, and information technology became an increasingly large part of everyday life.<sup>6</sup> The popularization of information

technology had started long before that, and the media image of home computers was positive at the time.<sup>7</sup> There were only a few thousand computer hobbyists in the early 1980s, but user groups began to develop at computer clubs, which were emerging rapidly. The Finnish population at that time was about 4.7 million.<sup>8</sup>

In Finland, the Commodore VIC-20 was the first home computer to have any significant impact on the computer market in 1983.<sup>9</sup> At the same time, the first home computer boom was going on throughout Europe, but there were notable differences between the developments in different countries.<sup>10</sup> The Finnish digital game culture of the 1980s was dominated by computer games: game consoles and handheld electronic games did not make a significant breakthrough before the console industry began to collapse in 1983.<sup>11</sup> In Finland, home computer sales rose steeply in fall 1984, and good sales continued in 1985. Computer importers and retailers estimated that some 100,000 home computers were sold in 1984 and 1985.<sup>12</sup> During those years, in other European countries, such as the United Kingdom, the growth of the home computer market had already slowed.<sup>13</sup>

The early home computer boom was clearly linked to the rise of consumer electronics. For example, more and more color television sets were sold and used as displays for home computers.<sup>14</sup> An interesting feature of the Finnish home computer market of the 1980s was the domination of the Commodore computers, imported mainly by PCI Data. During Christmas 1985, the Commodore 64 was by far the most popular model (some 70,000 units were sold, leading to a 70 percent market share). The Spectravideo MSX was the second most popular, with some 10,000 units sold.<sup>15</sup> There were approximately 20 to 30 other home computer models in the Finnish market in 1984–1985, but most of them gained only a marginal user base, except for the Sinclair Spectrum, with approximately 4,000 units sold.<sup>16</sup> Many retailers experienced economic setbacks, and closeout sales started already in spring 1985.<sup>17</sup>

There are several reasons for the beginning of the first wave of the hobbyist machine wars in Finland. Major user groups, clubs, and even subcultures were quickly emerging all over the country. During this time, home computing was typically a male-oriented hobby, and most of the users were younger than before: the typical age of a computer hobbyist was 12 to 17 years old.<sup>18</sup> Especially outside of large

towns, the popularity of a particular platform could be heavily affected by local shops that represented one brand or another. The formation of the groups depended on two major things: social networking and the exchange of information and software.<sup>19</sup>

Users of non-Commodore computers often despised gaming and pointed to other factors, such as the availability of programming languages or the technical advantages of their computers. The conflicts typically took place among children and teenagers.<sup>20</sup> The computer press quickly took notice of these disputes and started reacting to them and using them to their own advantage. Between 1984 and 1987, there were only two special-interest magazines dedicated to home computers. The most popular was *MikroBitti* (first published in 1984), and the second was *Printti* (published from 1984–1987).<sup>21</sup> The first direct mention of a “computer war” appeared in an editorial in *Printti* in early 1986. “The level of intolerance and prejudice of these computer wars is so high that they are like dogmatic holy wars for certain individuals,” Editor-in-Chief Reijo Telaranta criticized.<sup>22</sup> Interestingly, the founder of Commodore, Jack Tramiel (who popularized the term “computer war”), remained a respected figure in the Finnish home computer industry.<sup>23</sup>

The disputes between computer users had started significantly earlier on the pages of home computer magazines and also in the emerging bulletin board system (BBS) information networks. Although the first BBSs had already appeared in 1982, there were only a couple hundred users before 1984 because modems were not widely sold and the hobby itself was relatively expensive. Nevertheless, *Printti* started its own BBS, Vaxi, which was upgraded in 1985 and opened to the magazine’s subscribers. Around this time, it was unusual for a magazine to use a BBS as its “electronic appendix.”<sup>24</sup> *Printti* may have been the first magazine in Europe to do so. In late 1985, BBS Vaxi already had more than 600 active users.<sup>25</sup> The discussion forums were immediately flooded with opinionated messages, which shows how users tended to defend their own preferences and at the same time network with like-minded individuals.<sup>26</sup>

As the market started to take shape, the magazines focused on their special interest groups. *MikroBitti* became increasingly Commodore 64 oriented, whereas *Printti* concentrated on the Spectravideo MSX and later on the IBM PC compatibles. The magazines’ editors also had conflicting views regarding the

importance of computer games. *MikroBitti* expanded and developed its game journalism little by little in 1985–1987, but in *Printti* games were regarded as a less important pastime. *Printti* focused more on computer clubs, programming, and BBS activity. The attitudes had commercial reasons, too. For example, the importer of Spectravideo placed numerous expensive full-page ads in *Printti*.<sup>27</sup>

In 1984, *MikroBitti* published an evaluation of the technical abilities of the Spectravideo 328 and Commodore 64. The way the article was presented attracted public attention: The front cover portrayed computers as spaceships battling each other.<sup>28</sup> The juxtaposition is one of the earliest examples of raising reader interest by pitting competing platforms so obviously against each other. Shortly afterward, hundreds of letters were sent to *MikroBitti*, and heated discussions started the following year. Arguments in the style of “why my home computer is better than yours” were based on technical details, critical evaluation of the published tests, and most notably, other readers’ letters.<sup>29</sup> Most of the first debates took place between the Spectravideo MSX and Commodore owners. Other home computer users also tried to participate when they felt that their voices were not being heard. Some of the letters were highly quarrelsome. For example, when one reader defended his Amstrad CPC in the 5/1985 issue, “CBM 64 is the Best” answered:

To “Star is Born” I would like to say that you can jump into a lake with your Amstrad, C64 rulez!<sup>30</sup>

Some of the letters were more neutral. For instance, the magazine was criticized for having too many articles about the Commodore 64. Users of the Commodore 64, in turn, had two strong counterarguments: The machine offered a superior selection of games and had a rapidly growing user base. For example, “Commodoren puolesta” (“Pro Commodore”) finished his long letter stating,

There is no match to the software [game] selection of Commodore ... And what’s CP/M good for anyway?<sup>31</sup>

Reader “64 parhaiden joukossa!!” (“64 among the best!!”) argued,

It is justifiable to have more articles about the Commodore 64, because most of the readers have one.<sup>32</sup>

Typically, in the first wave of computer wars the editors and some readers in

*MikroBitti* called for a truce at some point. For example, reader Jarkko Kilpeläinen stated in the April 1985 issue that “fighting can be inspiring, but this war has gone too far.”<sup>33</sup>

Although the Commodore 64 remained five times as popular as its rival, Finland was one the strongest MSX countries in Europe during those years. The computer war remained a hot issue, but in 1987 the sales of the MSX fell, and the Commodore 64 became even more dominant.

The next important confrontation was between the Commodore Amiga 500 and Atari ST in the late 1980s. Studies show that the public viewed the Atari ST as quite competitive. The editors of *MikroBitti* in particular thought that the ST could be as popular as the Amiga.<sup>34</sup>

The situation provoked a new computer war, which started in the fall of 1987, and was colorfully illustrated on the cover of *MikroBitti* issue 9/1989 (see Figure 1). This time, the juxtaposition could not have been much more emphasized. Finnish Commodore users were loyal to a brand, and therefore, most of them bought an Amiga in the late 1980s. It was typical for the Amiga users of the 1980s to complain about the low quality of ST games.<sup>35</sup> Influential game journalist Niko Nirvi was especially known to be an ST sympathizer, so some readers decided to vent their anger at him. For example, a reader named “Drewan Störe” wrote,

I’m especially irritated by the optimism with which Nirvi is presenting the Atari ST. I have, therefore, decided to grant Nirvi the Defender of the ST medal and a golden censor for your ST cult.<sup>36</sup>

During these years, Nirvi had a strong fan base that defended him in 1989 in the “Letters to the Editor” section. After a while, *MikroBitti* refused to publish more letters concerning the Amiga–ST war or Nirvi’s role in it.<sup>37</sup> The clash had started to wind down by 1990, but it still remained strong among subcultures. One of the reasons was the relatively modest sales of the Atari ST, which had a 6 percent market share in 1989 but started to decline thereafter.<sup>38</sup>

In the 1980s, a computer was still a comparably expensive investment for families, so it was natural for users to defend their choice.<sup>39</sup> Dispute topics varied, but every hobbyist had some idea of the superiority of his or her own computer. References to these disputes also popped up in an extensive survey conducted in 2002–2003.<sup>40</sup> Home

computer magazines were not just bystanders; they were highly active players, as revealed by articles they published about the hobby in general. The examples we've provided and others<sup>5</sup> show that the press encouraged these kinds of discussions—even heated ones. Readers' increased activity was always positive for magazines, and the editors actively participated in the discussions. Excessively hostile letters were never published, but otherwise the forums were an open ground for confrontations. Machine wars were not the only topics to provoke heated arguments. Game piracy and the moral panics related to computer games were equally controversial themes in the 1980s and 1990s.<sup>41</sup>

### The Emergence of PC Game Culture (1992–2002)

In Finland, the dominance of Commodore computers ended in the early 1990s, and the PC compatibles became increasingly common in households. In spite of the recession of the early 1990s,<sup>42</sup> the decade was also an important period for computer gaming. One of the most interesting sources from this period is the collection of readers' letters from *Pelit*, a computer game magazine first published in 1992. This unique collection, consisting of 3,749 letters from 1992–2002, was donated to the Department of Digital Culture of the University of Turku in 2004. The letters provide a fascinating picture of the Finnish game culture from a time when the PC was the most popular game machine in Finland.<sup>43</sup> The material has been used in a couple of theses,<sup>44</sup> but otherwise the letters have only been discussed in one research article.<sup>45</sup>

The first important computer war of the decade took place between Amiga and PC users, which was linked to the decline of Amiga-related articles and reviews published in the magazine. The main factor behind the decline was that Amiga game production was already waning in 1992 and 1993. The PC was becoming the dominant home computer in Finland, largely due to the growing popularity of affordable PC clones that flooded the market in the early 1990s. Finland, too, had a PC industry of its own; the Nokia MikroMikko series was especially popular at the time.<sup>46</sup>

The Amiga–PC clash was bubbling up even earlier. For example, already in the spring of 1992 a reader named “Vihastunut lukija” (“Angered reader”) referred to the “Amiga mafia” that was supposedly dominating the home computer culture:



Figure 1. The Amiga and Atari ST arm wrestling on the cover of *MikroBitti*, September 1989. (Courtesy of *MikroBitti*.)

Don't even try writing anything serious about the Amiga, if you do that your number of subscribers will drop to zero (no, we won't tolerate any Amiga 12736 or other crap tests).<sup>47</sup>

The reader was referring to *C = lehti*, a Commodore-oriented magazine known for its technical articles that had irritated some gamers in the early 1990s. The computer war escalated the following year when the number of Amiga articles and reviews declined. For instance, reader “Masa Kolonen” stated that *Pelit* was misusing its power to oppress “the strong cohorts of the Amiga users,” even though “there are still more Amiga users than PC users.”<sup>48</sup> Usually the letters were aggressive counterattacks against earlier accounts, but sometimes the writers referred to events taking place in their own circles. For example, in the summer of 1993, “Oula Pulju” wrote,

The computer war between the Amiga and PC users is at full rage among my friends. For

instance, one owner of an Amiga 500 was recently very aggressive toward me. At the end we started shouting at each other.<sup>49</sup>

The quarrel turned into a typical argument about which computer had more processing power—the latest Amiga models or similar PCs. The arguments were clearly connected to the loyalty that the users felt toward their computer model and its user community. There are plenty of examples of black-and-white views from 1993, but the magazine often published diplomatic comments as well. A reader called “Roz Skywalker” requested a truce and wrote in an ironic style:

Wouldn't it be nice—for a while—if all the PC users would switch to the Amiga and all the Amiga users would buy a PC??<sup>50</sup>

The anger and fights were understandable because, for many hobbyists, the decline of their beloved computer came as a bitter surprise. The confrontations also helped create group solidarity. The situation was especially sticky in Finland with its strong Amiga user base. In the big picture, the breach was linked to the financial problems of Commodore, which was struggling in the computer market. The final blow was the company's bankruptcy in the spring of 1994, after which the hardware supply for its machines started to diminish.<sup>51</sup>

At the same time, the popularity of the PC was growing fast and it was already establishing its dominance in the computer market.<sup>52</sup> In the United States, a similar shift had started even earlier.<sup>53</sup> The war still raged in readers' letters in 1994–1995, although the PC's dominance was becoming clearer.<sup>54</sup> Again, the growing market share was used as a powerful argument against other user groups. One good example from the spring of 1995 is a letter from “Stupendous Man”:

The machine war just keeps going, even if the outcome is clear ... The PC wins, it does not matter if the Amiga was invented by the gods, because every company, school, industry and, nowadays, even film company is using the PC, so EVERYONE is using a PC.<sup>55</sup>

After 1995, the war between the Amiga and the PC calmed down. There was an obvious reason for this: reader surveys indicated that fewer than 10 percent continued to use an Amiga. The Amiga and even the aging Commodore 64 were still occasionally used as secondary game machines.<sup>56</sup> Most users looked at the situation pragmatically.

Reader “Kuitenkin PC on paras” (“PC is the best anyway”) stated,

After I bought myself a PC (486/66) one year ago my Amiga was left unused. My mother suggested that we should sell my Amiga, but no, I just could not do it.<sup>57</sup>

After the marginalization of the Amiga, the next confrontation took place between the PC and videogame console users. As early as 1992–1993, some of the readers had suggested that *Pelit* publish articles and reviews on console games. Other readers strongly opposed these suggestions. “Short Live Super Famicom” wrote in early 1992,

So you want console games? I'm getting very irritated. There are already too many pages on them in *MikroBitti*. Almost twenty pages full of childish crap.<sup>58</sup>

The letter is a typical example of how owners of home computers regarded console games as “childish.” *MikroBitti* had published reviews and articles about console games since the late 1980s, and more readers were becoming critical of them. Videogame giants, such as Nintendo and Sega, did not yet have a significant market share in Finland, and several readers considered computer games far superior to console games.<sup>59</sup> PC gamers labeled consoles as “simple,” “naïve,” or “boring.” The same attitudes were at times supported by the editors. Reader “Fox Mulder” wrote in 1996,

Why do you want to ruin your excellent computer game magazine? Reviews of video games would be very short, because the majority of the pages are meant for computer games. Who wants to read that kind of reviews? Besides, there is already a magazine in Finland dedicated to video games: Super Power.<sup>60</sup>

Readers' letters include occasional details on how the Finnish game machine market changed in the late 1990s, in line with the rest of the world.<sup>61</sup> The editors noticed from reader surveys that a number of subscribers already owned a Sony PlayStation or were interested in trying out the game console, which had been released in 1995.<sup>62</sup> Popular videogame magazines started appearing at the same time, most notably *Super Power* (published in 1993–2001) and *Virallinen PlayStation-lehti* (first published in 1998), the official magazine supported by Sony.

Faced with this competition, *Pelit* founded its own PlayStation magazine, *Peliasema*, in

the summer of 1998. At this point, the number of PlayStations sold had already reached 100,000.<sup>63</sup> Editor-in-Chief Tuija Lindén stated that this was a clear indication that game consoles had become a hobby that was suitable for adults, too.<sup>64</sup> The press had noticed that the market value of PC games in Finland had reached its peak and that the importance of console games was on the rise. The Finnish Games and Multimedia Association (FIGMA) stated that the PC still held a 57 percent market share in the spring of 2001,<sup>65</sup> but during the same year the balance shifted in favor of console games. The new PlayStation 2 had hit the market and the total number of PlayStations sold was about 350,000 in fall 2001.<sup>66</sup>

It was not surprising that *Pelit* started publishing videogame reviews, news, and articles in 2002. The number of letters to editors had dropped dramatically after 1997. The obvious reason was that the interaction between readers and the magazine had mostly moved to the Internet. In 1993, *Pelit* had also started its own BBS, which remained highly active until 1996. The BBS was shut down on 31 December 1999.<sup>67</sup> As expected, many old subscribers were critical when console games entered their beloved PC magazine. “Ei kehu” (“No praise”) wrote in the spring of 2002,

Today when I opened this year's first issue of *Pelit*, I was shocked and I almost had a heart attack ... I have subscribed to this magazine since 1997, because it's the only Finnish magazine that writes about PC games only. But now, even you have succumbed to the temptation.<sup>68</sup>

However, other readers took the reform easier. Quite a few PC owners also owned a PlayStation, and when the market evolved, most gamers regarded the development as natural.<sup>69</sup>

### **Contemporary Wars (2007–2013)**

The last case study deals with contemporary platform wars ranging from 2007 to 2013, which show that the fighting shows no sign of ending. We collected the source material from discussions found on V2.fi, a Finnish entertainment website founded in 2007. All in all, we selected 53 discussion threads dealing with controversial topics from the years covered by the site to find out about the factions and rhetoric of the last six years.

One factor coloring the discussions is that readers can participate anonymously, which tends to increase the number of controversial statements and even *trolling*,<sup>70</sup> where the

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only purpose is to provoke others, because there is little risk of getting caught. Moderators remove the most inappropriate messages upon discovery, so some content was likely missing from the source material. The sheer amount of fighting was, however, so high even with moderation that there can be no doubt that the wars were still continuing.

As in the 1980s, the computer media still benefit from the wars, which is why they often feed the controversies, more or less subtly. V2.fi is no different in this respect, as many of the headlines reveal. Word choice when reporting on events is likely to ignite heated discussions, which in turn, increase the number of visitors. Far-fetched speculation, direct quotes from vocal company representatives, and expressions (such as “Is x better than y?”) are among the most common baits that keeps readers coming back.

The most pronounced wars of the last six years seem to have raged between PC and console gamers (continuing the tradition of the 1990s) and the proponents of different videogame consoles: Microsoft's Xbox 360, Sony PlayStation 3, and Nintendo Wii (U). With all the major consoles retailing for about 200 euro or less (as of March 2013), sticking to only one of them cannot be justified on economic grounds alone. Obviously, there is more to joining a “group” than that. Computer wars have been almost as common, with the long-standing Mac versus Windows versus Linux battles continuing despite their considerable age. The latest gadgets, in particular the Apple iPhone and iPad, also stir controversy among hobbyists. The arguments found on the discussion boards can be roughly divided into six categories:

- technology (processing power, graphical capabilities, stability etc.)
- community (alleged properties of a user group)
- games (amount or quality of available games)
- company (wrongdoings or strengths of a company)
- market share
- price

Interestingly, the same logic is frequently used in two completely opposing directions. If a platform is popular, its proponents see the market share as a confirmation of its superiority, whereas opponents may label its users as conformists. The role of a platform is by no means stable. During its lifespan a computer or game console will evolve from a challenger into a winner or a loser and, eventually, a piece of nostalgia.<sup>71</sup> Another common example is the graphical capabilities of a particular machine. A PC owner might put down consoles' outdated graphics and consequently be labeled a "graphics whore." Every argument has a counterargument, which leads to a somewhat predictable chain of events whenever a fight starts.

The Sony Other OS case of 2010 was, in many respects, a high point of contemporary machine wars and serves as an example of the wars' logic. The controversy started when Sony decided to remove the Other OS functionality of its PlayStation 3 console through a firmware update in spring 2010. Previously, the console had been able to run a version of Linux, which let owners use their PS3s as general-purpose computers. V2.fi first reported the case on 29 March and followed with multiple newflashes as the case unraveled. The downgrade was a welcome opportunity for PC and Xbox 360 proponents, who pointed out how Sony treats its loyal fans. Perhaps the most interesting and revealing part of the discussions is how some PS3 supporters countered and downplayed the claims:

If you use PS3 for some shitty Linux then shouldn't you get a PC in the first place?<sup>72</sup>

Other OS support was removed so that hackers wouldn't exploit the vulnerabilities discovered by Geohot to run pirate games.<sup>73</sup>

The first quote shows how a counterattack turned an issue into a nonissue. A related approach was to refer to how few people the downgrade actually affected. The second quote is an example of diverting the blame

from Sony toward the hackers who forced the company to protect its legal rights. Later, the case became part of the anti-Sony canon, an example that can be brought up in future discussions.

Apple, Microsoft, Nintendo, and Sony, as companies, all receive harsh criticism in the discussions. In fact, it is rare to find anybody directly supporting them, even if their products are worth fighting for. All the main players have frequently been labeled as dubious enterprises that misuse their power. Microsoft has long been the target of numerous attacks because of its operating system monopoly.<sup>74</sup> However, recently Sony and especially Apple have been accused of equally unfair behavior. A company's poor reputation leads to critics labeling the company's supporters as blind followers of a cult:

Don't even try, these Sony Defense Force idiots can't realize that there could be something wrong with a Playstation exclusive game, which is why they have this comic need to label all critics as xbots or fanboys.<sup>75</sup>

One necessary ingredient of the wars is the labeling of opponents (in the source material there were tens of different epithets). People were labeled "xbots," "psbots/sonybots" (robots), "fanboys," "hipsters,"<sup>76</sup> "graphics whores," "sweaty nerds," or "mainstream teens." The wrong gadgets have received nicknames such as "Gaystation," "Crapbox/Shitbox," and "Kidtendo." Two common strategies are to insinuate that your opponents are either children or homosexuals, which most likely reveals something about the debaters themselves: a teenager, unsure of his or her own sexuality and on the verge of leaving childhood, may be easily offended by this kind of insults.

Not everyone wants to participate in the wars. Even in the most heated discussion threads there are neutral participants who don't feel like taking sides or who are even opposed to the fights. These peacemakers' approaches come in two forms, which we could call "ecumenism" and "fighting fire with fire." A typical ecumenist states that he or she owns multiple computers or consoles, and thus, there is no occasion to fight. The latter kind of peacemaker regards machine wars as a waste of time and takes an aggressive stance against them by calling people names—for example, "childish fanboys."

After years of attacks and counterattacks, a war eventually comes to a standstill, the passion starts to fade, and perhaps, another war

comes to the fore. One sign of such development is that even the most eager fighters stop taking the bait: even the most provocative headlines or comments don't spark a reaction, although previously they would have led to tens of agitated answers. Another similar sign is the appearance of sarcasm and metalevel commentary, indicating that the participants have already distanced themselves from the topic.

## Discussion

In 2014 the technological landscape is completely different than that of the 1980s. However, it is striking how little the dynamic and themes of the computer wars have changed. Several of our examples highlight how similar topics have been repeated in heated discussions throughout the years. A Windows supporter still frowns on the marginal market share of the Apple Macintosh, not unlike the Commodore 64 owner who looked down on the Spectravideo. The rhetoric has not changed much either as representatives of the opposing camp are still labeled children, fanboys, and generally incapable.

How does a user end up in one group and not the other? The overall popularity of a platform creates convenience in the form of software and other support, which is, naturally, one contributing factor. The price of a device might matter if there were significant differences between the competitors, which usually has not been the case. Commercial factors definitely play a role and receive attention, but based on our observations, it seems that in many cases the reasons have been social. Choosing one platform over another is a statement in itself, influenced by friends and peers who already lean in a certain direction. Questions of social acceptance may rule out other options, regardless of whether one can afford them or not.

Figure 2 shows the main participants in computer wars. The figure also illustrates the different domains in which the fighting takes place. The relationship between users and companies crosses the hobbyist–commercial boundary, but it is mostly instrumental in nature when compared with the emotionally loaded tensions between rival user groups. On the other hand, a manufacturer's demise is a dramatic blow to its supporters, which typically leads to the community's rapid decline. A significant portion of the fighting is mediated through various communication channels, which introduces different kinds of filtering and, from a historian's point of view,

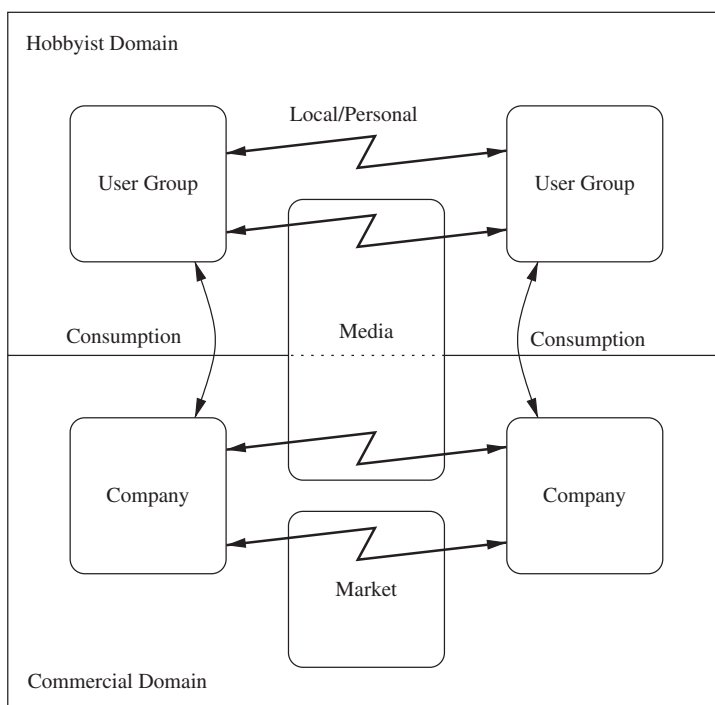


Figure 2. Relationships between the main participants in computer wars.

conveniently archives the arguments for further study.

As we have shown, in numerous cases computer magazines have fueled—or at least accepted—platform wars by pitting computers against each other and publishing readers' heated letters as well as opinionated articles written by the editors. The same tradition is even stronger in modern-day media, largely because ad-funded websites cannot survive without a constant flow of visitors. Another way of looking at the role of media is incorporation, where a parent culture tries to commoditize subcultural activities.<sup>77</sup> Seen in this light, machine wars could even be considered products themselves.

We have presented a Finnish view of a worldwide phenomenon. The country's relatively small population can only support a limited number of competing publications and, similarly, the computer market is bound to be modest in size. The lack of an active domestic computer industry means that home computers and game consoles have been imported from abroad, and therefore, there has been little reason to favor one brand over another on patriotic grounds. The Finnish market was heavily dominated by Commodore until the early 1990s, so for several years the wars raged between the



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## As long as competing hardware or software platforms exist, users will identify with their peers.

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supporters of one Commodore model and other, less successful competitors. Such bias has inevitably affected the dynamic of the conflicts; in another country, the factions could have been more balanced.

It seems that as long as competing hardware or software platforms exist, users will identify with their peers, just like football clubs, car brands, and rock bands have devoted followers. The wars should not be regarded as a mere byproduct of the computer industry, but as a meaning-making process in which users constantly negotiate their relationships with technology within the practices and attitudes of their reference group. Regardless of the negative aspects, such as insults and aggression, there are positive sides as well: identifying with a group creates stability and trust in your choices, although your machine might be obsolete next year. Machine wars can also be regarded as a form of entertainment—a turn-based game that tests your wit and verbal skills.

### Acknowledgments

We thank the Kone Foundation for funding the Kotitietokoneiden aika ja teknologisen harrastuskulttuurin perintö [Home Computer Era and the Heritage of Technological Hobbyist Culture] project.

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  26. R. Telaranta, interview by P. Saarikoski, Jan. 2002; *Printti*, 8/1985.
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  32. *MikroBitti*, 3/1985.
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  34. Saarikoski, "Koneen lumo," pp. 134–137; Bagnall, *On the Edge*, pp. 426–509.
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  44. E. Kurjenniemi, "Mainonnan muutos *Pelit-lehdessä* vuosina 1992–2004" [Advertisements in the *Pelit* Magazine 1992–2002], master's thesis, Univ. of Turku, 2012.
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  48. *Pelit*, letter, 281/1993.
  49. *Pelit*, letter, 279/1993.
  50. *Pelit*, letter, 291/1993.
  51. Bagnall, *On the Edge*, pp. 536–548; Saarikoski, "Koneen lumo," pp. 390–392.
  52. Saarikoski, "Koneen lumo," pp. 398–399.
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  64. *Peliasema*, 1/1998.
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  66. Notice from Figma ry [Finnish Game Awards] 8.2.2001, [www.figma.fi](http://www.figma.fi); *Pelit*, 3/2001; *Pelit*, 11/2001.
  67. Saarikoski, “Pelit-lehden lukijakirjeet”
  68. *Pelit*, letter, 3733/2002
  69. Saarikoski, “Pelit-lehden lukijakirjeet.”
  70. See Saarikoski et al., *Sosiaalisen median lyhyt historia*.
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