The Rise and Fall of BBS Culture in Finland, 1982–2002

BBS communication networks digital culture home computers

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The purpose of this article is to provide a general picture on the significance of the BBS culture from a computer hobbyist perspective. The study will proceed in chronological order from the early stages in the 1980s to the events of the 1990s and early 2000s. The available data on experiences and memories related to BBSes is survey-based. Interviews and some of the original messages from discussion areas are also used. The data support the earlier observations regarding the diversity of BBS culture. The BBS hobby had its own rules, norms and courses of action, and this could also be seen in the playful, constantly changing use of language in the message areas. The data evokes an image of an entirely new type of hobby that was initially met with a great sense of wonder. The sources also talk about the slowdown period of BBS activity, and reminiscing about it has also brought up comments that refers to information network nostalgia. So far, the history of the BBS culture has not been extensively researched, especially in Finland. Therefore, this article is one of the first academic case studies from this subject.

Introduction

> "BBS systems were a window to the outside world and toward different areas of interest. Often, it was impressive simply to log in, or attempt to log in, to a system." (Kotikone, M, 1979)

The citation above is from a survey (Kotikone) completed in 2013 that collected memories and experiences concerning the popularization of the home computer hobby in Finland. Many respondents who were born in the 1970s and 1980s brought up the fact that, before the internet broke through at the end of the 1990s, BBS (Bulletin Board System) was the first contact with information networks (Naskali & Silvast 2014, 33–34). In Finland, the BBS hobby was at the height of its popularity around the mid-1990s, and BBS systems have been classified particularly significant as regards the cultural adoption of information networks.

(Saarikoski 2004, 380–384; Hirvonen 2010, 3–10). The purpose of this article is to provide a general picture on the significance of the Finnish BBS culture from a computer hobbyist perspective. How were users acquainted with the BBS and what kind of activities did they create around them? What memories and experiences have been associated with this activity?

The study will proceed in chronological order from the early stages in the 1980s to the events in the 1990s and early 2000s. I will focus on the adaption of the hobby, its development and the growth of user base and finally examine the rapid decline of BBSes. I also examine the heritage of BBS culture and its status and significance as a "pre-internet". This case study is a continuation of the research in which we have looked at the life cycle of Finnish network services of the early 2000s. It appears that the infrastructure of Finnish-originated, Internet-related inventions and innovations, which were not strongly considered national, survived longer than individual local, national, or transnational services (Suominen et al. 2017). Finnish BBS culture was more local than global in nature, and it practically almost disappeared in late 1990s and early 2000s. Was this mainly due to the rise of the global internet? What lessons can we draw from its cultural history?

In Finland the hobbyists knew BBS-systems as "purkit" (pots) or "kannut" (cans). Etymology of these slang words is uncertain, but at least computer magazine Printti used the word "purkki" already in 1985 (Ks. Printti 9/1985). This was because the early version of BBS Vaxi, maintained by Printti, was sometimes called "Honey Pot" (with the picture of Winnie the Pooh), and "honey" referred to manufacturer of their BBS server (Honeywell). Supposedly, the hobbyists adopted this word and developed an alternative version of it ("kannu") sometimes in early 1990s.

So far, the history of the BBS culture has not been extensively researched, especially in Finland. Out of the Finnish academic research on the topic, Mikko Hirvonen's master's thesis from the field of digital culture and his scholarly articles (Hirvonen 2007, 2010, and 2011) as well as the author's own publications (2004, 2009, 2017) are noteworthy. Internationally, there has been research interest in the United States, BBS systems are also discussed in several national publications concerning the history and local adaptation of the internet and information networks. (E.g. Tobler 1995; Argyle & Shields 1996; Driscoll 2014; Morris 2004; Mailland & Driscoll 2017). BBS is also notified in demoscene research (Reunanen 2017; Silvast & Reunanen 2014).

The same applies to its media visibility: former and current computer hobbyists have written most of the history on BBS systems in Finland (See e.g. Skrolli 3/2014; Skrolli 1/2016). The most important reason for the lack of interest is obvious: the level of interest toward the internet and, later, social media, has marginalized the phenomenon. The second factor is the passage of time: over 20 years have passed since the peak of the BBS era, and the systems were a fairly marginal phenomenon in the eyes of the general public. Nowadays, BBS is a curiosity related to the history of information networks that the younger generation, in particular, has not even heard about. Kevin Driscoll has come up with similar observations. He writes about the forgotten history" of information network culture, which researchers have not been dealing with since the 1990s. (Driscoll 2014, 15-18) For these reasons, this article is a case study, focusing entirely on the general history of BBS culture in Finland.

Questionnaires, interviews, and thematic essays have been typical ways of collecting user experiences related to computing. The Kotikone survey mentioned above is an example of an available body of data. It is a continuation of a survey carried out in 2003 (Tiesu) that collected a more extensive amount of information on the memories related to the history of Finnish computing, the use of computers, and the attitudes toward different phenomena within the field of computing (Aaltonen 2004). The available data on experiences and memories related to BBSes received from both surveys was often short and fragmented. This was the main reason that I started a new survey (Komu), focusing solely on the BBS hobby, in the fall of 2016.[1] The purpose of the survey was to uncover qualitative data on the hobby, and, for this reason, most of the response fields were open. In addition to the basic information, the respondents were asked about the starting points of their hobby, its development, and the details of active use. Stories and memories related to the discussion areas were a dedicated section. At the end, the respondents were asked about their memories related to the final phases of the activity.

During the survey, I also completed interviews and gathered available and archived messages from former BBS systems.[2] The amount of collected messages is vast, containing some 12.000 different messages. At the time of writing, the analysis of this material is still in progress; partly due to this reason, this material will be mostly outside of the scope of this article. Still, I am going to use some of the messages as a supportive material and the preliminary analysis based on them in this study. [3] Messages of the BBS can be difficult to access for research purposes. A significant part of the data is still on the hard drives or floppy

disks of private computers. Some may have been permanently lost, mainly because of the technical reasons. The disintegration of data began already in the 1980s and 1990s, when the hard drives were often wiped clean because there was not enough storage space. This problem is internationally well known. For example, Kevin Driscoll has noted that programs and files are quite well archived on the Internet, but messages and written text documents – especially from private BBSes – are often hard to find (Driscoll 2014, 22–24). Still, at least some message archives from Fidonet-network are available from Usenet-discussion groups, maintained by Google Groups.

Examining the messages specific research ethics plays an especially significant role. Researchers have also started to pay more attention to the issue in Finland. (Östman & Turtiainen 2016) First, BBS-messages were really not meant to be public and as sources they can be classified as private correspondence. Second, messages were usually written by adolescent hobbyists. Third, most of hobbyists still use the same nickname, so messages can still be linked to a particular user. Therefore, researches must be extra careful when using these messages as sources. At least the nicknames have to be anonymized and certain sensitive issues must be left outside of the research focus, or they must be referred in a very general way. As a method for analyzing the BBS discussions, I have taken advantage of *empathic reading* of the material (Järvinen-Tassopoulos 2011). In this way, I can protect the writers from any unfavorable publicity, and still concentrate on my original research focus.

Previously, I have interviewed the well-known system operators of large BBSes: Seppo Uusitupa (CBBS Helsinki), Teppo Oranne (Metropoli), Hannu Strang (Vaxi), and Jukka O. Kauppinen (MBnet, Neuvosto-Savo). In order to balance this, I have selected for this article one interview (Jenni Ikävalko) that both provides information on the lifecycle of a smaller BBS (BBS Atom Heart Mother and BBS Kukkaniittu) and describes the role of the female in a male-dominated hobbyist community. As regards theory, I am drawing on research that discusses the stages of cultural adoption of information networks and the cultural history of the computing hobby on a more general level. Especially I will use research done in academic field of digital culture (e.g. Saarikoski 2004; Saarikoski et al 2009; Suominen 2013).

There is a risk that the research will only confirm the information that has been brought up earlier and, unwillingly, create a nostalgic halo around the phenomenon. There is also large potential for errors in interpretation as well as factual errors. The researcher must analyze the

responses with critical accuracy and be well aware of the general history of the BBS culture. This problem is very well known within the field of computing history research, and it poses additional challenges, in particular, for researchers who lack personal experience in the phenomenon being studied. On the other hand, the collection of survey data may be justified by a second obvious purpose: the survey allowed for reaching the old modem hobbyists and creating a basis for more extensive research. The second justification was the obvious scarcity of surveys that solely focus on BBS activities, especially in Finland.

Adoption of the Hobby

> "Experiences and culture from the BBS era, which predated the internet, should be collected. The systems have already disappeared and the people will soon be suffering from dementia."
> (Kotikone, M, 1974)

The enclosed response is very descriptive of the developing age profile of the former modem enthusiasts, which can also be seen in the Komu survey from the fall of 2016. Most of the respondents were over 40 years old or approaching this age. The largest group (79%) consisted of people born between 1973 and 1980, who mostly had their first contact with BBS systems in the 1990s. This result is well aligned with the studies on 1990s BBS history, which state that the height of popularity was in the mid-1990s (Hirvonen 2010; Saarikoski 2004).

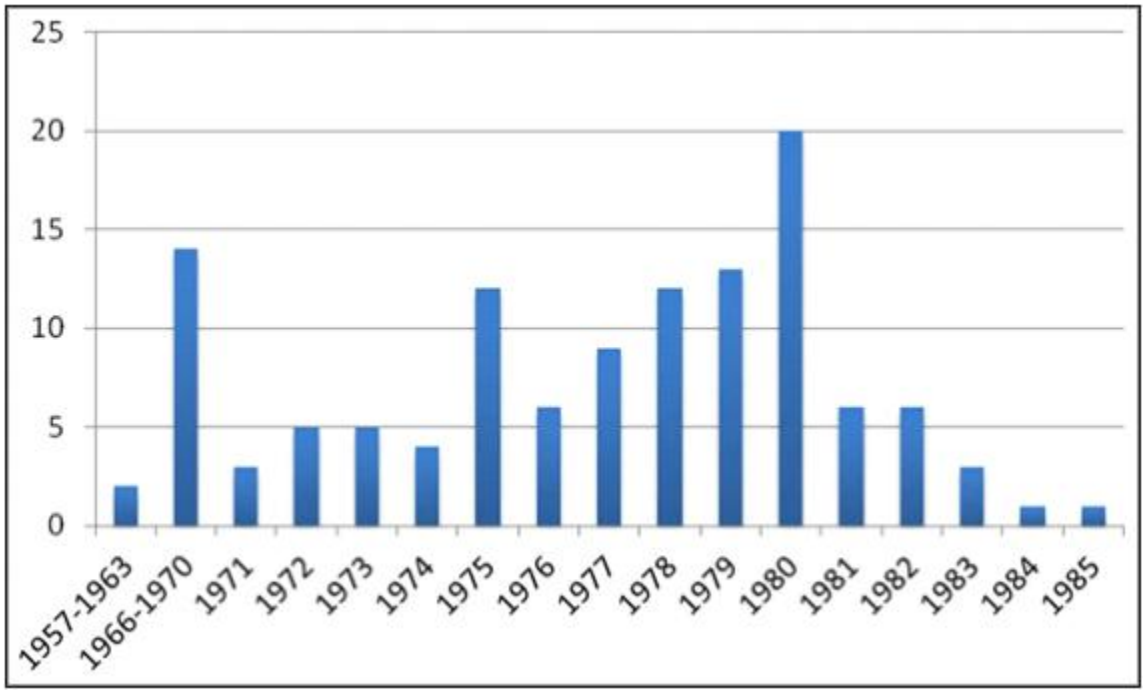


Figure 1. Age range and distribution for the hobbyists. The oldest respondent was 59 years old, the youngest was 31. There were a total of 124 respondents. The references are coded this way: 1) acronym of the survey, 2) sex (if mentioned), 3) year of birth and 4) answer order.

Males made up most of the respondents (94.4%), and many of them (38 respondents) had lived in the Helsinki region (Helsinki is the capital of Finland, and the region also includes big cities like Espoo and Vantaa) during their BBS hobby. The respondents were highly educated and a large number of them worked in the IT sector. The respondents born between 1957 and 1972 (24 people) formed a separate group that had had their first contact with BBSes in the 1980s. Respondents born in 1973 or thereafter mostly stated that their first BBS experiences took place in the 1990s. What was this group's first contact with BBSes like and how did they define their activities?

The generally accepted understanding is that BBS activities in Finland started in the summer of 1982, when Seppo Uusitupa's CBBS Helsinki was connected to the telephone network (Prosessori 6-7/1982; Uusitupa 1993). The significance of this event may even have been overemphasized in studies and memoirs (Interview: Seppo Uusitupa October 22, 2001 and August 25, 2007. See also Saarikoski et al 2009, 50). On the other hand, this is the earliest known example of an experiment that brought the BBS-hobby to Finland from the United States, where it had started in 1978 (Driscoll 2014; BBS The Documentary Part 1/8: Baud). The history of Finnish information networks had started with the installation of the first commercial modems in 1964, but until the mid-1990s, the government and private sector

mainly maintained basic services. There was never any serious attempt to create an ambitious national information network, like the French Minitel, although some projects were launched under the umbrella of information society programs. (Saarikoski et al. 2009, 27, 44–51. See also Mailland & Driscoll 2017) Therefore, BBS hobbyists can be classified as "early adopters" of modems in private use.

Still, Finland had a fairly large number of BBS systems per capita at the end of the 1980s (about 150 systems in total) (Saarikoski 2004, 161). Finnish BBS culture developed in the field of operation of certain telephone companies. One of the main reasons for this was the costly long-distance charges. This is also the main reason why most of the BBSes were located in big cities (like Helsinki, Vantaa, Espoo, Turku and Tampere). This was also the case in other European countries (Rheingold 1993; Mailland & Driscoll 2017). According to earlier research, between 1982 and 1985, a large part of the hobbyists were men over 20 years old who either worked for the telephone companies or in the IT business or studied these subjects. Many early BBSes were run by companies in this field, or associations and clubs associated with them (Saarikoski 2004, 39, 41, 44–45). This gradually spread the modem hobby to computer clubs and educational institutions. The phenomenon was widely popularized by the computing press. According to the survey, individual first contacts with BBSes were already made in 1982–1983. But 78% of the "early adopters" date the events "at the end of the 1980s".

> "In 1985. After upper secondary school ended, I was working in my first job in the IT business, and my employer at that time became interested in the possibilities of BBSes for marketing and communications" (Komu, M, 1966 [I])

> "I met Jussi Pulkkinen (Sysop for SuoKUG BBS) when doing other business. This may have been in '83 or '84. […] This activity was very rare and exotic, and only those who were interested in computers were involved in it." (Komu, M, 1957)

The responses also show that new technology was exciting and people actively studied it during their free time. It is important to note that the respondents emphasized the significance of BBS use as a tool for expertise and networking. The viewpoints concerning the professionalism that the early adopters brought up are fairly common in the history of computing. On the other hand, the playful and experimental nature of the activities could be

seen in the mentions concerning early hacking attempts, where young people had accessed online systems without authorization and set traps for the other users (Komu, M, 1967 [I]. See also Suominen 1997; Saarikoski et al. 2009, 55–56).

The role of BBSes as an exclusive hobby for experts and professionals started to gradually change toward the end of the 1980s. A period of rapid internationalization also started. Based on the data, the popularization of the BBS was significantly affected by the BBS Vaxi (1985–1991) maintained by Printti computer magazine. Vaxi was obviously the most popular BBS in 1980s, gathering several thousand subscribers yearly. (Saarikoski et al 2009, 52–54; Interview: Hannu Strang 11.2.2002). Of course, the professional computer press and club magazines (Prosessori 6-7/1982; Vikki 8/1983) had already covered modems, but the introduction of the home computing press significantly broadened their target audience (MikroBitti 11/1985; 5/1986. See also Saarikoski et al. 2009, 57). According to the responses, many early experiments were made on the Commodore 64, the most popular home computer of its time.

> "I was reading Printti magazine, published by A-Lehdet, and walked into HPY's office in order to rent my first 300 bps modem that I connected to a Commodore 64" (Komu, F, 1967 [II])

The response is also indicative of the practical difficulties that new hobbyists encountered. A modem was an expensive piece of hardware. The telephone companies supported hobbyists to an extent, particularly through the computer clubs. The responses include memories related to experimentation with the first modems.

> "You called a BBS by using a landline phone: you dialed in the number and listened for the carrier tone. After this, you pressed a button on the modem that took over the line and connected to the remote system." (Komu, M, 1970, [V])

Picture 1. Nokia started to manufacture modems in the late 1980s. In the picture, VB 312 -modem from 1987, which supported dual speed mode (300 b/s and 1200 b/s). VB 312 was advertised with a slogan ”For hackers and other professionals”. (MikroBitti 4/1987).
Source: Salo Museum of Electronics.

Many young hobbyists first encountered BBSes through a friend or acquaintance before purchasing a modem for their own use.

> “The first time I witnessed using a BBS was at a friend’s house in the fall of 1987. His father worked at the local telephone company. [-] We visited some discussion boards, but I have no other memories. It all felt very futuristic – information networks, I mean. Full-on science fiction.” (Komu, M, 1972 [I])

The early experiments in the 1980s were often random by nature. The memories are often vague, and the above response describes this very well. The younger generation, in particular, experimented with BBSes in the late 1980s and only actively started the hobby in the early 1990s.

> “In 1988, my father had bought a PC with a 1,200 baud card modem. We used it a few times, mainly to call BBSes that were listed in the magazines (I can remember at least two by name: Kopel Fido and JKL Fido). Both of us were mostly interested in BBSes as sources of files, and my access to the modem was very limited at the time.” (Komu, M, 1977, [I])

The response refers to the Amstrad PC model, introduced in 1987, that had a built-in 1,200 baud card modem. This computer model is an interesting byway in the development that preceded the hobbyist adoption of PC computers, previously intended for professional use. The turn of the 1990s can also be seen in the data as an increase in the significance of the Amiga computer. In Finland, the Amiga 500 model that was introduced as a continuation of the Commodore 64 started gaining popularity in the late 1980s. Based on the responses, the Amiga was fairly commonly used alongside the PC in the BBS circles of the 1990s. During these years, the Amiga was very popular in other European countries too. For example, in both the UK and Germany about 1.5 million were sold, and sales reached hundreds of thousands in other European nations. (e.g. Reunanen 2014; Bagnall 2005; Knight 2018).

> "[In 1990, I purchased] an Amiga 500 computer that many of my friends already had. Two of them also had modems that we used to call several BBSes. The ones I remember the clearest are Neuvosto-Savo and Metropoli. There were others, of course, but these were the most popular ones." (Komu, M, 1972 [IV])

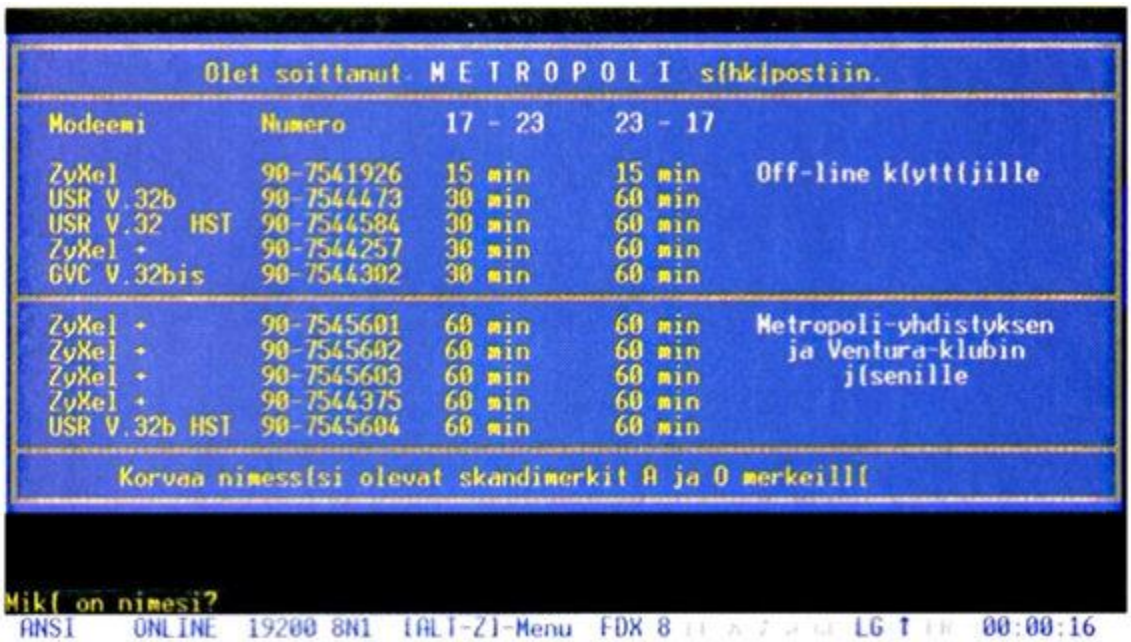
Chanting and Leeching

In the BBS circles, discussions and messaging can be considered the foundations of the hobby from the 1980s onwards. They can be divided into three parts: private messages, chats between two or more people and the actual messages on the discussion boards. File transfers and games, for example, became more important later in the 1990s (Naskali & Silvast 2014). In this respect, the Finnish BBS culture did not differ much in international comparison. (e.g Driscoll 2014, 164–165; Tobler 1995). Many of the terms used in the discussions were English-based, but some of them were only used in Finland. In some cases, hobbyists were known as "kusoilijat", which was a reference to code QSO (more commonly referred to as simply a "contact") used by radio amateurs. Still, in Finnish BBS culture the most common slang word for online discussions were "messuilut" (eng. "chants"), and therefore hobbyists were usually called "messuilijat" (eng. "chanters").[4] This is an example of a slang word which is not used anyone.

> "The discussion boards were so full of inside jokes that outsiders were unavoidably left out. However, I have a lot of memories of threads that made me laugh out loud (at least during a suitable sugar rush)." (Koku, M, 1975 [I])

The popular BBSes, in particular, were often full and required constant queuing. Furthermore, different time limits significantly slowed down their use. The technology in use and the high cost of telephone calls also affected the nature of the discussions, in particular at the early stages. Therefore, discussions were a combination of synchronous and asynchronous messaging. The habit of downloading all of the messages at once became more common in the 1990s. The messages were only read once the connection had been closed, and the users wrote their messages offline and uploaded them during the next connection. So-called offline reader software was used for reading and writing messages; the most popular message package format used was QWK. This reader format, originally developed in 1987, was especially popular among the users of Fidonet. The other, also internationally well-known reader format was BlueWave. (Hargadon 2011, 70-71; Driscoll 2014, 224; "What are QWK and BlueWave?", alt.usenet.offline-reader 2014). There are plenty of references to its use in research data, especially in the 1990s, when material originally published on the internet was transferred to BBSes running on PC and Amiga home computers.

> "Since phone calls were fairly expensive, I only spent about an hour a day online; however, reading and replying to the QWK packages could take up to 6 hours or even entire days, if a serious debate was in progress and I had to go to the library or consult my own bookshelves in order to look for facts." (Komu, M, 1970, [IV])



Picture 2. Main menu of BBS Metropoli (c. 1993). Scandinavian letters (like Ä and Ö) are not working and instead system is placing them with characters | and [.To improve readability, the users

are instructed to use letters A and O instead. On the last line, the system is asking the user's name, a mandatory task before he or she could proceed.

The data contains mentions of hundreds of different BBSes that the respondents had used. The most mentions went to MBnet (49 pcs), Vaxi (31 pcs), Metropoli (15 pcs), Pelit-BBS (9 pcs), Neuvosto-Savo (7 pcs), and Amiga Zone (6 pcs). The reasons for this emphasis are undoubtedly that these BBSes were also among the most popular ones (Saarikoski 2004, 380–381). Otherwise, the data contains plenty of individual mentions of BBSes. The names that hobbyists invented for their BBSes make for fascinating reading and indicate an in-depth knowledge of fantasy and horror literature, or were otherwise quite innovative: Shadow Gate, Shoggoth's Nest/Protoplasma, Dragon's Nest, Chicken's World, Snowfall, Gaia, Underworld Fortress, and Turbohyttynen (translated as "Turbomosquito", a clear reference to whimpering sound of a modem).

Picture 3. Main menu of BBS BCG-Box. "Yleiset komennot" (main commands) were usually a combination of Finnish and English. For example, <COM>: send message to Sysop, <CHAT>: real time discussion tool, <WHO>, who is online and <G> quit and go offline. Source: Ville-Matias Heikkilä / Skrolli.

The data supports the earlier observations concerning the important role of the message and discussion areas in BBSes (Hirvonen 2010, 24). Based on word searches, 54% of the respondents emphasized the importance of message and discussion areas. On the other hand, the responses also indicate how the hobbyists' interests started to diverge during the first half of the 1990s the latest. 58% of all the respondents emphasized that files were the primary motive for calling BBSes. Out of the other available activities, only 15% of the responses emphasized the importance of online games. However, for some users, participating in the discussions was not at all important or they have no memories of it. Active participation in

the discussions was widely respected, and BBS system operators commonly requested it. Simply downloading files without much message activity (so called "leeching") was even frowned upon, and Sysops limited passive users' access to the file areas. These rules were usually written on the index-pages of BBSes. (Kauppinen 2008, www.byterapers.scene.org). Based on the data, downloading files was especially popular among respondents born in the late 1970s and early 1980s. Therefore, it is interesting to note that the responses discuss software piracy in a fairly indirect manner. "Beautiful warez memories of downloading games all night with the modem." (Komu, M, 1978 [VII])

The term "piracy" is only directly used in four responses. As a social activity, piracy in the BBS world was a significant shift from the earlier means of copying and trading software that made use of letter correspondence and meet-ups in person. Copies of commercial software could spread quickly from one BBS to another inside Finland, and as international connections developed, international software trading also started to increase. In countries like United States BBS-piracy was already common in early 1980s. (Sterling 1993, 84; Bennahum 1998, 3–6, 82–84). This kind of activity first emerged in Finnish BBSes during the late 1980s, and the activity was already well established in the early 1990s. It is noteworthy that, at this time, the Finnish police first became interested and the first seizure of a pirate BBS happened in 1991 (Saarikoski 2004, 329–332). Based on previous research, copies of commercial software – games in particular – were commonly distributed in the BBS world, but there were specific rules and limitations concerning their availability (Saarikoski 2017; Reunanen 2014). The same limitations also concerned the downloading of files in general, regardless of whether they were games, music files, comics, online novels or pornographic images.

However, Mikko Hirvonen has argued in his own study that the division between discussion-oriented BBSes and software-oriented BBSes was artificial, since practically all BBSes engaged in both activities (Hirvonen 2010, 26-27). Software was a type of added value related to the operation of the BBSes. The same BBSs that hosted illegal games were also a platform for active discussions. Similar observations have also emerged in studies on the pirate scene (Reunanen, Wasiak & Botz 2015). Software trading (simply known as "treidaus") was an important factor regulating file downloads; if you downloaded files from the BBS, you also had to upload new ones. This is generally referred to as the upload/download ratio (or u/d ratio). Later on, this was also a common solution for FTP sites

on the internet, but in BBSes, it was more common for the downloaders and the system operator to know each other. Files were commonly zipped, or archived in order to save space, and appended with all of the necessary information.

> "Upload/download ratios, zipping all files and including the file_id.diz inside the package, checking in advance that the same file is not already available, and saying hi to the Sysop during your first call to a new BBS." (Komu, M, 1978 [IV])

In many BBSes, pirated software and piracy in general were nearly taboo subjects, and even talking about them was forbidden. For example, the rules of the BBS could state that "Discussions on piracy, copying or cracking are NOT allowed." (Komu, M, 1977 [III]) In commercial BBSes, such as MBnet maintained by the *MikroBitti* magazine, it was natural for the rules on piracy to be strict, but the data does not clearly indicate why piracy gave rise to censorship even in hobbyist BBSes. One potential reason might be the profiling of BBSes; certain systems wanted to develop according to a specific set of rules and norms. According to my personal interpretation, as well as previous research, software piracy was – at least partly – considered "mass culture"; it attracted a large number of young, fairly inexperienced users who concentrated on downloading software and were, in a way, also seen as a nuisance.

> "The BBSes that you used for downloading files were a different category. They did not invoke a personal relationship. However, the other BBSes created a rather lively, small social world where members got together during meet-ups." (Komu, M, 1979 [IV])

> "In a way, we made fun of the trading culture. It was sort of a counter-reaction to it. It was a time of elitism; we were young and unconditional, as you often are at that age." (Interview: Jenni Ikävalko, September 15, 2016)

The attitudes toward pirated software, in particular, divided the computer hobbyists, and emotional discussions on the topic could be seen even in the mail columns of computer game magazines (Saarikoski 2012). In this respect, the BBS piracy of the 1990s was more of an insider activity that had fairly little to do with the current anonymous online file sharing culture (Saarikoski 2004, 331–333).

BBSes were considered to be important electronic meeting points where visitors were expected to interact. When user logged in he or she was supposed to give their full name to Sysop (if calling for the first time) and use that name as a sign of identification, or use a handle (nick name) instead. The most active BBSes could receive thousands of connections per month (Kauppinen 2008). A wide selection of experiences and memories is available concerning the rapid spread and increase in popularity of the 1990s BBS hobby, which lasted until around 1996. The first contact was made at their place of residence, where the hobbyists spent their childhood and youth. Users read about BBSes in computer magazines, then learned about the hobby from their friends and, later, decided to join in themselves. Nearly systematically, the stories bring up the effect of friends, which is also linked to the need for social networking.

> "Social interaction and the exchange of information, games, etc. were the most important. The BBS physically bound me to people in my home region; it created virtual groups of friends." (Komu, M, 1978 [V])

The other feature is that the hobbyists have met on a BBS first and then face to face.

> "Finally, the system (Atom Heart Mother, later Kukkaniittu) came to life in December; before that, I had been compiling a group of friends. Some were from the Kuopio scene, and some from Helsinki. The first time we met at a party with a larger crowd was in December '95." (Interview: Jenni Ikävalko, September 15, 2016)

The networking occurred between young people living in the same town or neighborhood; later on, contacts were sought from elsewhere in Finland as well as from abroad. The BBSes had a clearly socializing role when young teenagers were looking for a reference group they could not find at school, for example. Jenni Ikävalko, the Sysop of BBS Atom Heart Mother[5] and BBS Kukkaniittu[6], who started her familiarization with BBSes at the age of 14, has provided an apt description of this stage:

> "My interests were completely different from those of my peers at school. For example, I was interested in sci-fi and already liked Star Trek and games back then. […] I thought it would be nice to have a place where you could talk and write about

> sci-fi, exchange short stories, and do other fun things." (Interview: Jenni Ikävalko, September 15, 2016)

Another emerging characteristic is that networking and finding "similarly minded" friends was a nice surprise for many hobbyists.

> "My circle of friends included a lot of people who were interested in computers, so we also used BBSes quite a lot. Most of my friends used BBSes at some point, at least." (Komu, M, 1975, [II])

> "In my circle of friends, this was quite common, since some people had joined our circle from the BBS scene. Of course, they were not in the mainstream; just something a small group of nerds did." (Komu, M, 1977 [VI])

> "A lot; nearly my entire circle of friends outside of school consisted of BBS users." (Komu, 1980, [X])

The data also contains mentions of long, ongoing friendships that started from the BBS hobby.

> "Many of my acquaintances, who work in different fields, are people who I originally met in BBSes." (Komu, M, 1978, [XI])

> "When I became acquainted with the BBS scene, I was a teenager with absolutely no technical knowledge. Through MBnet, I met dozens of new people, and we used to meet up in the Helsinki region and at the Assembly festivals." (Komu, M, 1982 [VI])

Of course, setting up your own BBS and acting as its Sysop was considered to be the pinnacle of the hobby. Out of the respondents, 48 reported that they were the Sysop or co-Sysop of a BBS. The most commonly mentioned BBS software were the Finnish SuperBBS and BBBBS and the American PCBoard. The lifetime of hobbyist BBSes could vary from a few months to several years; sometimes, the BBS was kept online for up to ten years. The core community within one BBS could be fairly small:

> "The core group, I believe, was around ten people. And then there were about twenty or thirty who sort of hung around. There were also lots of callers who only called once or twice." (Interview: Jenni Ikävalko, September 15, 2016)

At the start of the 1990s, the average age of the users had fallen clearly below twenty years. In this way, discussion areas of BBSes worked as virtual youth clubs. Discussions were moved to specific areas, named by Sysops or co-Sysops. Usually naming policy varied greatly, but there were some common themes. For example "pelit" (games), "skene" (demoscene), "ohjelmointi" (programming), "viihde ja media" (entertainment and media), "koneet" (hardware) and "myytävänä" ("for sale"). Typical problem in discussion areas were that messages started to go "off topic" if Sysop did not modify the thread or was otherwise passive. Therefore, the most common (and usually the most popular) areas were simply classified as "sekalaista" (miscellaneous messages). Often, in these areas the conversation was often quite unrestricted and even confusing, because treads were filled with insider jokes and meta-text (discussions referring to some other discussions or events somewhere else). It was typical that these kind of areas were humorously named "kiipunkakkaa" or "paskanjauhanta" (roughly translated as "cesspool" or "bullshit talk"). Many of these messages contained foul languages and usually "cesspools" were the birthplaces for flame wars and trolling. Sometimes tangled discussion threads aroused frustration:

> U1>These chants belong to everyone, so you don't have to read, just press enter if you are not interested.
>
> U2> Yeah, sure… but this really start to piss me off when 60% of these chants are just shoddy bullshit and nothing serious. Yeah, THINK ABOUT IT. (BBS Atom Heart Mother 14.2.1996)

Furthermore, sources indicate that majority of discussions can be classified as "social interaction"; young people talked about any matter related to their daily lives. The social nature of the BBS hobby could also be concretely seen in the formation of different free-form communities. For many, hanging around BBSes was an important way of spending time that bound like-minded people together and offered young people the chance to meet each other in an unofficial or even entertaining setting.

> "BBSes were not a separate hobby. It was a large part of my life in my teens. It connected with everything else that happened back then, such as alcohol, house parties, meeting girls (or dreaming about them!) and the rest of the "weekend culture". We often started Friday nights at my friend's house. We would talk about BBSes and "go online" while drinking cheap white wine or something like that and listening to music or the radio." (Komu, M, 1978 [VI])

The data contains a number of other similar memories, even though the details provided are often scarce. Still, sources contain reports from different parties and meetings, and discussion threads include references to the use of alcohol.

Despite this, the hobbyists used discussion areas to handle serious issues. For example, BBSes were important channels for peer support, and discussion areas contains lots of material where users shared their fears and frustrations:

> U1> How in hell I can get so awful result from the math test? b, just b. I've never got such a bad result :(All this happened because I accidently read the wrong chapter. Oh, dear… I'm so depressed. Well, luckily it's time to get some sleep (BBS Atom Heart Mother 7.2.1996)

If someone was sad and depressed, other users could quickly respond: "I hope we can give you some support when you come to meeting today." (BBS Kukkaniittu 18.6.1999). There are also very serious stories present. For example, one high school student reported that his mate from school had been killed in car accident. He had just come home feeling very confused and shocked. Other users immediately began to give him crisis support via discussion area. (BBS Kukkaniittu 1.10.1997)

The hobbyist groups were male-dominated, and the girls who joined the activities would sometimes gather attention. The women who responded to the survey (8 people) apparently did not consider the gender question to be problematic, and the girls who were accepted into the groups were – at least for the most part – treated in an equal manner. Jenni Ikävalko has stated in an interview that, sometimes, the other users could not believe that she was a girl and suspected that she might be a "fake" (Interview: Jenni Ikävalko September 15, 2016). The attitudes could have been influenced by a case that shook the BBS world in the late

1990s where a boy had used a girl's name, and assumed the role of a girl in discussion boards. This case was infamous and is still remember as a classic example of "role trolling". This incident also indicates that real names or handles were almost always used in BBSes and fake names were frowned upon. This was also a sign that usually anonymous discussions were not allowed by the Sysops or they were discouraged. (Hirvonen 2010, 90). There are several international comparisons to make. Researchers have pointed out that users had a tendency for this kind of role-playing and if you even changed your gender role, this was usually a very effective, though risky behavior (Baym 1998, 13–15; Blanchard & Horan 1998, 293–307).

From Playful Arguments to Trolling

In the 1990s, as the number of users grew significantly and the average age fell, arguments between users also became more common. Earlier research and interviews have brought up that, in the 1990s, "BBSes became kindergartens" (Saarikoski 2004; Interview: Teppo Oranne, February 6, 2002). The fights, arguments, flaming, and trolling were also familiar phenomena on the BBS side; on the other hand, as the interaction between BBSes and the internet increased from the mid-1990s onward, the arguments also spread from one system to another. In the interviews and surveys, former hobbyists have stressed that flaming and trolling was more common on the internet. This is not necessarily entirely true.

Research suggests that arguments and flame wars were a normal phenomenon related to the popularization of the computer hobby that had already started in the 1980s. Respondents have simple forgotten many negative phenomena related to BBS-hobby. (Saarikoski & Reunanen 2014; Hirvonen 2010, 86–87; Saarikoski 2017). In the survey, 75 respondents indicated that they had encountered the phenomenon in one form or another. 38 respondents stated that there were no arguments or that there were "very few" of them.

> "Sometimes, the arguments would be very fierce. Those who were most critical in arguments and questioned everything were not generally very well liked." (Komu, M, 1979 [XII])

> "You would constantly see arguments and attempts to determine the pecking order, although this would occur less in BBSes where you had a stronger inner circle and

> feeling of community. I was fairly active at trolling beginners or people who appeared too formal/conservative; I would use sarcasm, for example." (Komu, M, 1977 [I])

The existence of different distractions is undeniable, but the attitude toward them seems to indicate a generation gap – for example, older and more experienced users often found that younger users' behavior was tasteless. The arguments also included a degree of playfulness that outsiders could not always understand.

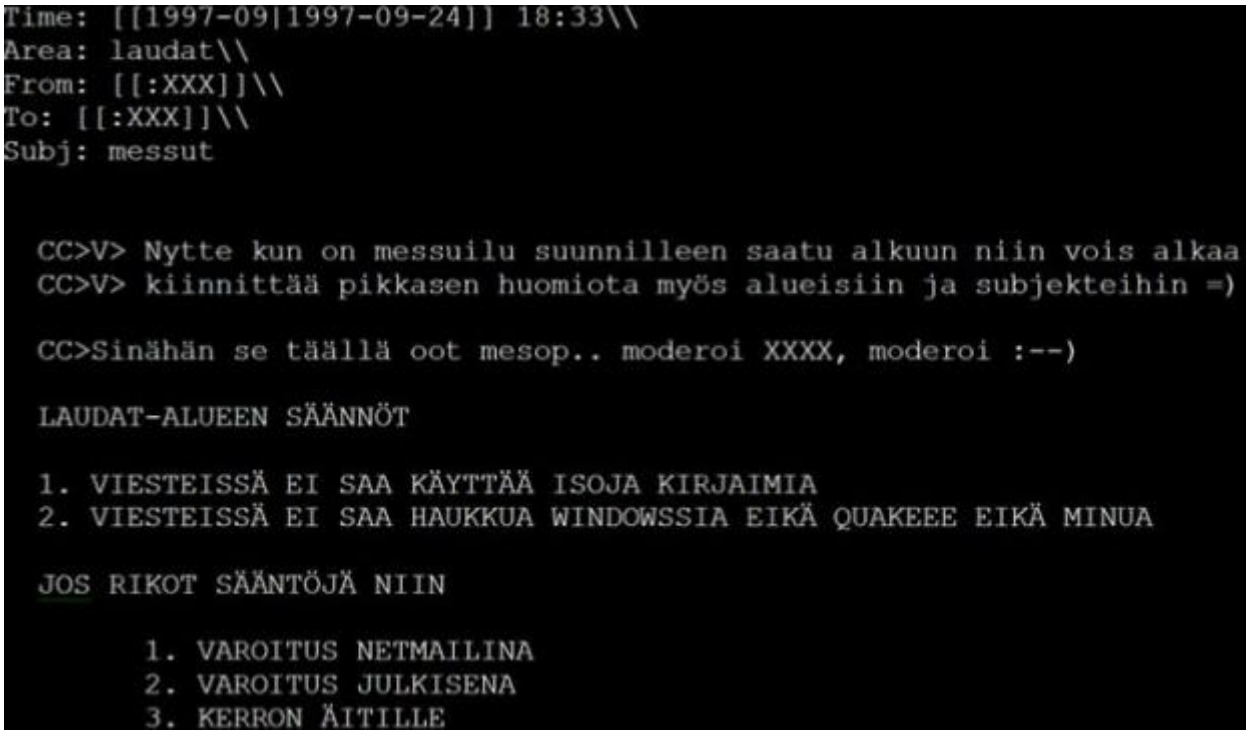
> "There was always some flaming, and trolls as well. When I started the hobby, it took a while to understand their deeper meaning. Many scientific discussions could be led astray, and users who approached the matter in a less logical way often encountered such a degree of hostility that moderators were definitely required." (Komu, M, 1976 [V])

The role of the Sysop was to act like a referee. If arguments started go beyond certain boundaries, the Sysop could write a warning message to calm down participants. "Stop that bullying right now! It's not fair, because at least I want to read his chants on my BBS and it's not nice if you drive him out!" (BBS Kukkaniittu 22.4.1998)

The term "flaming" was clearly imported from Usenet (See more e.g. "The Jargon File, version 4.4.7", Usenet), and was far more common than "trolling" in the Finnish BBS-scene. According to my observations, "trolling" become more common as late as 1997. The survey data supports the understanding that, in particular, language that could be classified as flaming was fairly common, but overly provocative arguments were effectively controlled by the principles and rules that the hobbyists had assumed. In concrete terms, this meant that if a hobbyist wanted to be part of a community, they had to act according to its norms. On the other hand, cursing and usage of foul language was also very common.

Furthermore, the majority of off-topic discussions included some sort of teasing. For example, in September 1997, the users of BBS Kukkaniittu had a lively discussion about different music tastes. When one user listed dozens of heavy metal bands among his favorites, his friend said cleverly: "Well, buddy. You are one true HeAVy MeTAL MaNIAc!! :P". The other user replied quickly: "I listen to some mod and chip music too. Amiga stuff is pretty cool". His friend continued: "Oh, yeah? What kind of mods? DanCE eUrO PoP? |-

(:Θ)". This kind of writing also show typical linguistic play, and the use of emoticons is was also a good example of how international influences spread from internet to BBS. In Finland, emoticons were apparently introduced in early 1985, three years after they were first used in Usenet. (Fitzpatrick 2003; Saarikoski et al 2009, 218–219).



Picture 4. Example of a discussion thread from BBS Kukkaniittu (24.9.1997). You can see the usage of "chants"-word ("messut") which was basically the synonym of "discussions". Area is a new one so users ponder how the discussions should go on, what kind of rules you should follow, and then the Sysop writes: "Rules of Laudat-discussion area are: 1. Do not use capital letters, 2. Do not write flaming messages about Windows, Quake and do not criticize me. If you do not follow these rules: 1. I will first give you a private warning message, 2. then I will give you a public warning, and 3. finally (if even this doesn´t work) I will tell your mommy".

BBS administrators, or Sysops (sometimes helped by co-Sysops), could easily remove, or ban, a troublemaking user from the BBS. However, it was far more common for the Sysops to moderate the discussion threads. The most typical target for slander and sarcasm was a young, inexperienced hobbyist who would be "asking stupid questions" on the discussion boards. Another typical scenario was one where someone was being "too smart" and aggressively questioning the views presented by others.

Usually in computer subcultures, users were divided into "outsiders" and "insiders". Subcultures were often very competitive, which is marked by the distinction between "elites" and "lamers", actively used in subcultures like the demoscene (Reunanen 2017; Reunanen &

Silvast 2009). Archived messages from BBSes are literally filled with this kind of discussions. Synonyms for lamer were “laama” (lama) and “luuseri” (loser) which were also frequently used. Normally, if you were a new user and you were not familiar with the rules of BBSes, there was a good chance that older users labeled you as a “lamer”. The growing number of hobbyists online also fueled this kind of behavior. For example, computer magazine MikroBitti had launched the subscribers’ MBnet service in 1994 and the BBS had become very popular, gathering thousands of new users. In February 1995 – only a few months after the opening of the MBnet – the userbase had already reached 5000. At the end of the year, the number had increased to 15,000 users. At the top of its popularity in the late 1990s, the service had over 32,000 registered users. While operating at full capacity, the service had 250 nodes in use. (Ruhanen 2002, bittivuoto.net; Hirvonen 2010)

Older hobbyists constantly mocked the new and usually inexperienced users of MBnet. In some BBSes there where even discussion areas where this kind of activity was very common. One good example is from BBS Atom Heart Mother, where one area was simply named “fukken lamerz” (fucking lamers).

> U1> “Some lamers from MBnet are sending me messages and asking “how have you created that fucking awesome ansi-animation??” Pah, just stupid” (BBS Atom Heart Mother 27.6.1997)

One interesting, national feature was the usage of term “peelo”, which became common from 1995 onwards. Based on some sources (PeeloFAQ 1998; Pelupaketti 2008), the term emerged in Freenet Finland during 1995. Freenet was a state-funded internet service aimed at teachers, schoolchildren and their parents. The operating model was mainly copied from the USA and Canada. In both countries, a large number of free services (Free-Net) was created alongside commercial services for various communities (Järvinen 1994). Some educational professionals were remarkably active online. One of them (with a user account “peelo”) had written long and critical comments on the grammar errors of certain discussions, but being apparently inexperienced as a computer user, his own writings were full of errors and technically weird formatting. Other users were very annoyed by this kind of behavior. BBS users quickly adopted the term, even though its original meaning was blurred and partly forgotten. At the same time, it was adapted in IRC channels, too. Typically, “peelo” was used to mock users who wrote most of their text in capital, added many exclamation marks,

emoticons or used a lot of color in text. This kind of behavior broke several unwritten rules and it was classified as “stupid shouting”. For example, if your starting line was “IT WAS VERY VERY NICE TO CALL HERE… jAm!!! jAm!!”, Sysop could sarcastically comment: “NICE TO HAVE YOU HERE!!!!!!!!!!! PEEELOOO!!!” (BBS Atom Heart Mother 25.6.1996)

Sometimes hobbyists took still pictures or copied texts as an evidence of “lame activity” and posted them to certain discussion areas. This kind of evidence was called “lame capture”. Discussion areas devoted to this kind of mocking can be clearly today compared to certain discussion groups of social media, where still pictures of humorous, annoying or otherwise “stupid” activity is presented as a joke for others.

Angry discussions emerged also when hobbyists thought that certain Sysops had “too strict” moderation policy. For example, discussion areas of MBnet were constantly monitored by moderators, which were called “sheriffs”. The task was mainly voluntary, so the only benefit the “sheriffs” got was the opportunity to use the biggest BBS system of that time. The magazine did not allow discussions that had any connection with the illegal activities (normally this meant the distribution of pirated software or mp3-audio files). “Sheriffs” also easily moderated discussions if foul language or ongoing flame wars were discovered, and users were frequently kicked out of MBnet. “Banning” (the termination of access rights for a fixed period) was a very effective weapon, because every user had only one hour usage time per day. Many hobbyists were accustomed to flaming discussions and some of them were very critical of “censorship policy” maintained by sheriffs. (Saarikoski 2017)

However, Sysops usually understood that some sort of control was indispensable: “Of course, they want you to behave nicely, and they have the power to draw the limits!! Remember that!” (BBS Kukkaniittu 26.11.1997) Jouni Heikniemi, who worked as “sheriff” for MBnet, remembers that some of the discussions were very naïve and vulgar. Their job was to intervene if the discussions went too personal. (HS 2.2.2017) According to my observations, the term “cybersheriff” was sometimes used in other countries too. In any case, studies refer to the fact that there was a clear need for these official or semi-official moderators (Dean 1997; Post 1995). “Cybersheriff” is a fitting reference to the mythic American West, and how information networks were seen as the new “Electronic Frontier” by writers like Howard Rheingold (e.g Rheingold 1993; McLure 2000).

Although the respondents have tried to downplay the flaming arguments and the effects of sarcastic language, BBSes were sometimes also home to actual bullying, which undoubtedly hurt several younger users. The use of the offensive language was just one way of action. Identity thefts, message flooding and deliberate release of computer viruses were common and often effective methods of bullying. (Saarikoski 2004, 381; Saarikoski 2017).

The user could have been mocked by just what computer or hardware he or she was using. The arguments between Amiga and PC users over the superiority of their computers' technology received a lot of attention. These arguments, also known as the *machine wars* or *computer wars*, had started already in the 1980s and transferred into the BBS world from the letter columns in magazines and circles of friends (Saarikoski & Reunanen 2014). Significant changes in hardware ownership also affected the arguments. Low-cost PCs had filled the home computer market after the early 1990s, and statistically speaking, the PC was the most common home computer by 1994 the latest (Suominen, Silvast & Harviainen 2018). Correspondingly, the Amiga lost its share of the home computer market during the latter half of the 1990s, in particular. Based on the survey data, however, the machine wars were significantly toned down by the fact that Amiga and PC users often frequented different BBSes (Saarikoski & Reunanen 2014).

Coexistence of Network Systems and the Final Period

By comparing the data to the statistics concerning the topic and other research material, one can clearly see how in Finland the number of online BBSes grew and, at the same time, the hobby started to divide into dozens and hundreds of different communities. A relatively good overall picture can be gained by looking at the list files that gathered basic information on BBSes, such as their contact information and the services available (Figure 2). The peak years of BBS activity were 1995 and 1996. When looking at the numbers, we should take into account that the survey data includes plenty of mentions of BBSes that are not on these lists. This absence is due to the fact that Finland had a lot of BBSes that had a relatively short life cycle and some that were only available during a specific time of day. One can only try to guess the number of such BBSes, but it is very likely that they do not cause a major deviation in terms of the statistics. The heavy expansion of the hobby was also noticed by the commercial sector. For example, the computer game magazine *Pelit* started its own BBS in

1993, and the computer magazine *MikroBitti* launched its MBnet service, mentioned in the previous section, in 1994 (Interview, Jukka O. Kauppinen August 13, 1999; Ruhanen 2002, bittivuoto.net; Hirvonen 2010).

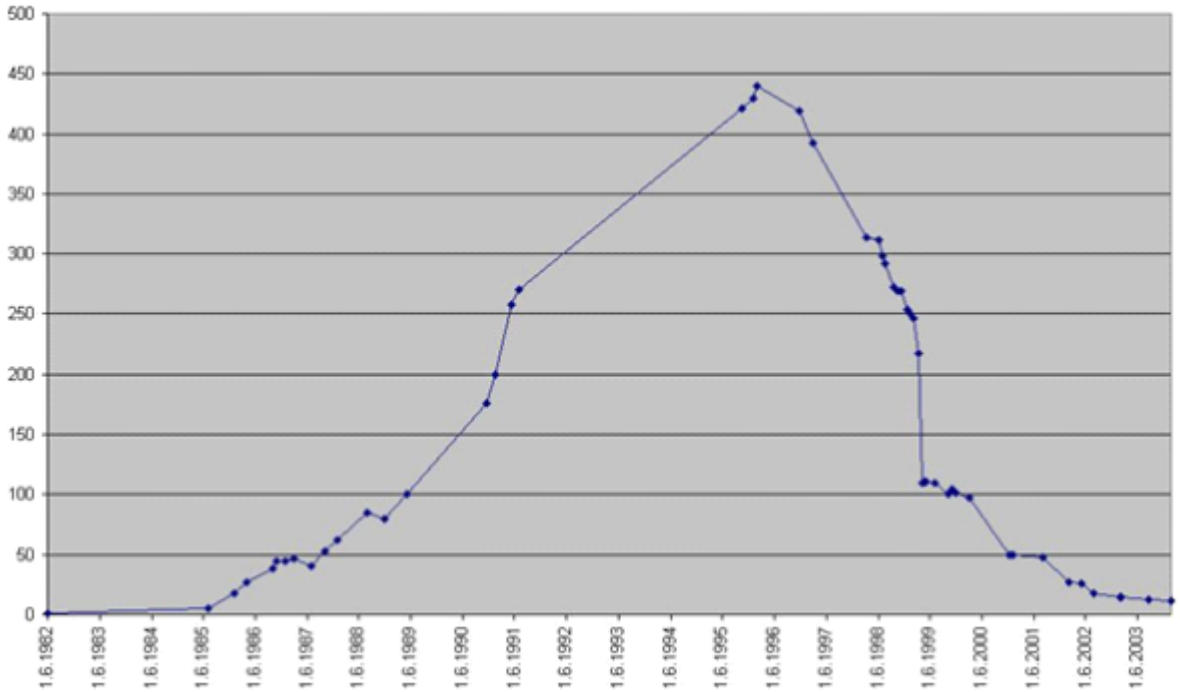


Figure 2. Statistics on the total number of 24h BBSes in Finland based on the BBS lists. It clearly shows the rising trend that continued until around 1996 and the dramatic collapse in the latter part of the 1990s. Source: "Elektroniset 24h postilaatikot Suomessa" (Electronic 24h BBSes in Finland) (1990–2004).

Earlier research may have been a bit too quick to conclude that Finnish BBS activities developed mainly on computer hobbyists' terms. The most stereotypical view is to classify the entire BBS culture as an activity for "nerds" (Saarikoski 2004; Driscoll 2014). The people who have been the most vocal in presenting their memories on the subject have been very active computer hobbyists. As shown above, the survey data seems to support, at least in part, the generalizing narrative of BBSes as the realm of small "geek circles" and technology enthusiasts and, therefore, creates interpretations that are at least partially disconnected from the reality of the BBS field.

BBS lists and other documents suggest that, in the 1990s in particular, there was a wide variety of users who frequented BBSes. In addition to those interested in computing, BBSes also attracted movie enthusiasts, role-players, fans of science fiction and fantasy literature, demoscene activists, music consumers, electronics hobbyists, and computer gamers. It should

also be emphasized that BBSes offered a very effective social platform for representatives of different minorities, who were very active to take advantage of this opportunity. For sexual minorities, for example, BBSes were a fairly useful networking tool. Seta ry (LGBTI Rights in Finland) operated a BBS in the 1990s and later moved its activities to the internet. The presence of subcultures and marginal groups proves that BBSes were by no means solely a realm of active and highly competent computer hobbyists (Saarikoski et al. 2009, 102–104; Böök 1989). In this context, it is noteworthy that internationally HIV/AIDS activists in the 1980s and 1990s made up a significant cohort of early computer network users who used Bulletin Board Systems (McKinney 2018).

Picture 5. Tomi Jaskari (chairman of the Finnish Amiga Users Group) in front of BBS Amiga Zone (June 1993). Picture: Esa Heikkinen.

During the 1990s, the connections between the internet and BBS systems started to tighten, and in practical terms, they coexisted for several years. It is indicative of this that research concerning the global information network culture of the 1990s practically views BBSes as an important area of information networks. Furthermore, during these years many researchers noticed how BBS systems, together with the emergence of internet services, created lively network communities in different countries. There are several case studies published from 1995 onwards (Baym 1998, 12–13, 19; Tobler 1995; Argyle & Shields 1996, 58–60. See also

Driscoll 2014, 367). At the same time, there were very few studies investigating the phenomenon in Finland, although the BBS is mentioned as an important example in some publications. (Böök 1989; Järvinen 1994; Uusitupa 1993).

The larger BBSes, of which we should at least mention Metropoli and MBnet, also offered the opportunity to access internet services like email and newsgroups. According to Mikko Hirvonen, the coexistence also benefited BBSes, which were able to "filter" the material available on the internet and offer the best parts to the BBS hobbyists (Hirvonen 2010, 68–69; Interview: Teppo Oranne, February 6, 2002). During the early stages of the popularization of the internet (1993–1996), this also undoubtedly increased the popularity of BBSes.

Picture 6. US-based modems of USRobotics (Finnish hobbyists commonly used the acronym "USR") were very popular in Finland in the 1990s. Above a USRobotics Courier Dual Standard from the mid-1990s. Source: Creative Commons, Erkaha. In March 1997, a sales announcement of Courier was published in the BBS Atom Heart Mother with an advertising slogan "A perfect modem for BBS-junkies – and even more" (BBS Atom Heart Mother 10.3.1997).

Some of the BBS users initially met the internet with suspicion. "We don't want any internet around here! Internet is a bad place for chanting, you just can't be sure who is reading your messages", was an example of typical critical user comment (BBS Atom Heart Mother 17.1.1996). "Well, reading of usenet news is just fine… But nevertheless, the same kind of

community [that we have here in the BBS] cannot be formed on the internet" (BBS SDi 26.8.1998).

Still, popular services like MBnet and Metropoli strongly promoted the co-existence of the BBS and internet, and slowly the attitudes started to change. For example, IRC (Internet Relay Chat) was a very popular internet service in late 1990s and it started to attract BBS hobbyists. Real time chatting was so attractive that active BBSes created their own private IRC-channels:

> U1> Hey, everyone. Let's create kukkaniittu-channel for irc! I'm gonna do it tomorrow if I remember. Please, join in! Everyone! #kukkaniittu! =)
>
> U2> Create also a bot, then that channel simply rocks! (BBS Kukkaniittu 16.9.1997)

In any case, the popularity of IRC took place at the same time when the Finnish BBS culture began to internationalize at a rapid pace. It is important to note that international connections had existed for a long time, but the arrival of the internet only made the development more effective.

> "The first half of the 1990s was an interesting time for me and my buddies. We traveled to party meetings (Sweden, Denmark, Germany). Fidonet was, of course, important in those days. Telnet was used for downloading latest software abroad – we didn't have to pay long distance charges. Anyway, in those party meetings, we began to exchange email-addresses and little later started chatting on IRC channels." (Komu, M, 1973 [X])

The rise of the internet has often been seen as the initiator of the quick decline of the entire Finnish BBS culture (Saarikoski et al. 2009, 68). In reality, the network cultures of both systems coexisted for a fairly long time, and the change was not as significant during the transition phase. Since the 1980s, BBSes had formed local networks or they had been connected to larger, international networks like Fidonet (Driscol 2014, 7, 23–24; BBS: The Documentary Part 4/8: FidoNet). Continuous development of the software used for BBSes also assisted in networking and internationalization (Hirvonen 2010, 32–33). Mikko Hirvonen has referred to this and emphasized that the cultural adoption of the network was, therefore, a process consisting of several parallel events (Hirvonen 2011, 57–58). My own

studies support this claim (Saarikoski 2017). Still, in the late 1990s BBSes with their phoneline connections, text, and character graphics started to look antiquated when compared to the real-time, global and graphical internet.

> "In the end, the unavoidable situation was that when people moved out of their homes and started their studies, they no longer had phone lines; they could sometimes call the BBS at their parents during the weekends. But they went on the internet, since student apartments had cable modems, ADSLs and so on. That was the death blow." (Interview: Jenni Ikävalko, September 15, 2016)

Picture 7. Coexistence of the BBS and internet in MBnet, as presented on the international brochure (1999) of the *MikroBitti* computer magazine. The editorial board picked ideas and thoughts from the discussion boards, and used them as reference material for future issues of the magazine. The number of daily users of the BBS mentioned here is obviously outdated, because the fast decline of popularity had already started in 1998. Source: The Computer Magazine with Attitude 1999.

After the peak year of 1996, BBSes started to disappear. First signs of decline were noticed on BBSes in autumn 1996. "Oh, dear… BADCOPS has ceased its activity, this is very, very sad news… there was so much good chanting going on there" (BBS Atom Heart Mother 22.11.1996)

Statistically, the largest collapse occurred in 1998–1999 (Figure 2. See also Ruhanen 2002, bittivuoto.net). Nevertheless, the most loyal users continued their activities. Still, most of them realized that the marginalization of their hobby was inevitable:

> U1> I cannot believe this… even these BBSes have vanished from our area. They were so active before the decline. Where is everybody going? Scene is turning to dead zone.
>
> U2> Yeah, this is it. BBS is a dying folk tradition. You just have to transfer the discussion areas to internet, there is no other alternative (BBS G-point 27.9.1999)

Even the users of Amiga home computers, who traditionally were keen supporters of the BBS culture, moved their activities to the internet. Relationships with international Amiga users were at that stage already very close. Hobbyists actively used IRC, Web sites and email, and the popular BBS Amiga Zone (maintained by the Finnish Amiga Users Group) was connected to the internet. The tone of the discussions was very pragmatic already in 2001. Users were also discussing what kind of net connections were available and how they could improve their activity. “At least my [inter]net connection functions so well, that I have no reason to use a modem anymore ;)”, said one user (BBS Amiga Zone 12.8.2001).

The disappearance of BBSes was strongly affected by a change of pricing by the major telephone companies, Helsingin Puhelin in particular; the new prices were unfavorable to BBS hobbyists who had used the lower local rates at night. As a researcher in this field, Mikko Hirvonen has emphasized that this was a particularly important reason for the demise of the BBS (Hirvonen 2007, 60–61; Hirvonen 2010, 38–39; Saarikoski et al. 2009, 69–70). By the early 2000s, BBSes were practically a marginal phenomenon. Relative changes in the numbers of users could be significant. For example, Pelit-BBS maintained by the *Pelit* computer game magazine had over 8,000 registered users in the mid-1990s, but by December 1999 – briefly before the system was closed – there were only a handful of users. MBnet – the biggest BBS service ever operating in Finland – was closed in June 2002, when the user base was already virtually non-existent. Still, an official closing ceremony was arranged, and a group of former moderators and active users were present when the red power switch was finally turned off (Ruhanen 2002, bittivuoto.net; Saarikoski 2012, 26).

When comparing the situation internationally, the decline in BBS activity seems to have occurred in roughly the same way and at the same time. For example, the use of the internationally networked Fidonet declined strongly after peaking in 1996, but it was still popular in the mid-2000s. Obviously, the adaption of telnet technology extended the use of BBSes (*BBS: The Documentary Part 4/8: FidoNet*). National differences were, of course, considerable. For example, the French Minitel was shut down in 2012, after three decades of continuous service (Mailland & Driscoll 2017, 1–4).

My understanding is that the decline of BBS activity in Finland was the sum of many components. The popularization of the internet and the changes in phone call prices were important practical reasons, but it was also a question of changes in use culture and the decline of hobbyist networks. This development occurred over a period of over five years, but after gaining momentum, the process started to accelerate itself. On the other hand, studies indicate the continuity of the BBS culture. For example, IRC channels clearly attracted BBS hobbyists, and many of them continued their activities without major problems. Therefore, it is a simplification to talk about the fall of the BBS culture. New network technology was adopted and the main activities continued. (Saarikoski 2017) This was also seen when new discussion boards (the most prominent one was MuroBBS) and "pre-social media" services like IRC-Gallery and Habbo Hotel emerged in the early 2000s (Suominen et al. 2017).

It is clear that for the BBS communities, which were often born around small circles, the decline in activity was an unpleasant and unwanted surprise. The last messages of BBSes clearly reflected strong emotions like sadness and feeling of loss. One good example is the final message from the Sysop of BBS Kukkaniittu:

> Subj:kukkis R.I.P.
>
> U1> for all those few who can still read these lines. This is the end. Kukkaniittu closes its operations on 30. June. Thanks, it's been fun… I hope that BBS-scene will continue somewhere, somehow.
>
> /signoff (BBS Kukkaniittu 24.6.2000)

The responses from the survey also contain opinions that repeat the rhetoric of "Eternal September", which has been brought up in research as well. Originally, this Usenet slang

word was used for a period beginning in September 1993, when America Online began offering Usenet access to its users. Interestingly, at the same time, Eunet Finland started its commercial internet services (Saarikoski et al. 2009, 318–319). According to this view, the internet brought the anonymous masses online, sending the network culture into a state of regression or ruining it.

> "The internet brought with it the regular people and users who behaved badly in the eyes of those familiar with the old netiquette" (Komu, M, 1973 I])

It is interesting to note that similar opinions had been seen in the BBS world in the 1990s, when the hobby was becoming significantly more popular. When compared to earlier surveys, the tone of these comments has remained surprisingly similar (Aaltonen 2004). This kind of opinions have later recurred on the discussion boards and forums of internet (Arpo 2005). The responses also indicate a clear nostalgia for the BBS, which has also been discussed in other research (Hirvonen 2011, 56–57).

> "It was somewhat sad. I can clearly remember when CIA BBBS, a local system in my village, closed down. The Sysop was studying at the University of Technology in Vaasa. The studies took up so much of his time that he decided to close the BBS. Locally, it was a big deal. The end of an era." (Komu, M, 1980, [XIX])

> "Both [BBSes that I used] closed in early 2000, and afterwards, when I got to read some of the final messages in these BBSes, it did bring about feelings of nostalgia…" (Komu, M, 1977, [I])

Many of the responses are bittersweet, and they convey emotions that many people also connect with the end of a specific stage in life. This is strengthened by the fact that many memories related to the BBS hobby are very warm.

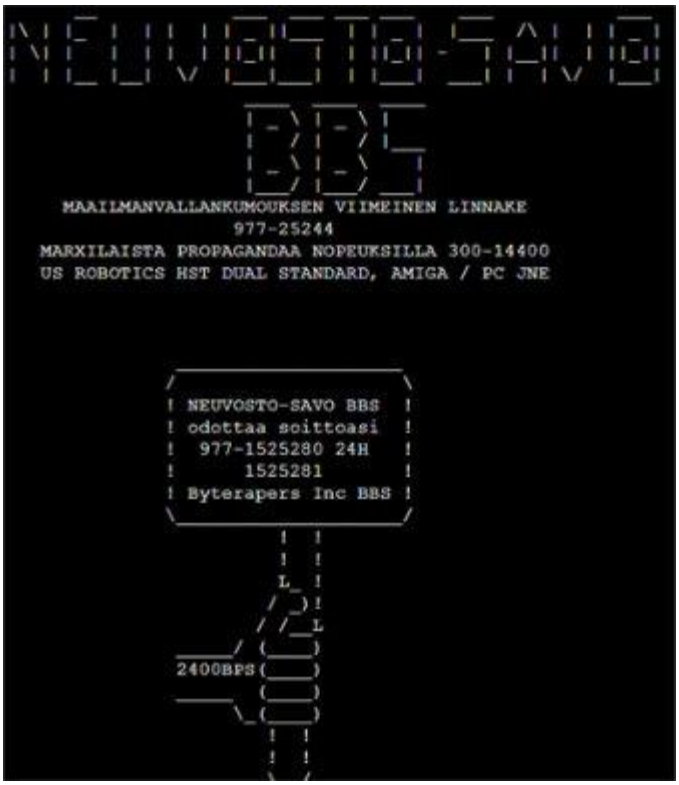
> "The BBS world was a way to reach out your hand and find out that there is actually someone who grabs it, and there they are, your own people; it felt great to be able to do that." (Interview: Jenni Ikävalko, September 15, 2016)

But you can also find several pragmatic views (61 pcs.) concerning the end of the activity; there was no time left for the hobby, the equipment became obsolete and the activity had

switched to the internet. Mikko Hirvonen has stated that nostalgia regarding information networks always tends to include characteristics that can be considered favorable (Hirvonen 2011, 53). The responses that deal with continuity and progress are clearly a part of this.

> "The feeling was nostalgic, since BBSes had been active communities with a strong sense of belonging. However, this was largely replaced by the IRCnet channels where this feeling has been maintained to this day among specific groups of people." (Komu, M, 1984 [I])

The BBS nostalgia seen today is a part of a larger field of retro culture. Even in Finland, the roots of retro culture, which links with the computer hobby, reach all the way to the 1980s. The aesthetics of old computer games have already been utilized for decades (Suominen 2008). Contrary to retro games, for example, BBS nostalgia has not created an extensive range of new media productions – ANSI and ASCII graphics might be a sideline in this respect (Albert 2017). The restarting of BBSes and the demonstration of operating BBSes at exhibitions are concrete examples of this type of retro culture (Kirschenbaum 2016, 1–2). A handful of Finnish BBSes is still operating via a telnet connection, some of them using original hardware (*Telnet BBS Guide 2018*, http://www.telnetbbsguide.com/bbs/). Meetings of former hobbyists are common. In addition, former hobbyists are frequently discussing BBS-related topics on the internet. The services preserving the Finnish BBS culture are mainly reflective websites that archive users' personal memories; some of them contains lots of jokes and humor (e.g. *PC-lamerit*, http://www.pelulamu.net/cwu/). *Skrolli*, the mainly volunteer-based computer culture magazine founded in 2012, has published articles dealing with the culture and history of BBSes (Skrolli.fi; Skrolli 3/2014; Skrolli 1/2016; skrolli.fi. See also the international edition of *Skrolli*).



Picture 8. There is some archived BBS-related material available on the internet. Sources consists mainly of contact lists, file areas or screenshots of user interfaces, and some short stories about the history of certain popular BBSes. Above is an advertisement of the BBS Neuvosto-Savo ("Soviet-Savo"), based in Iisalmi and maintained by the famous demoscene group Byterapers during the 1990s. The first lines are slogans: "The last fort of the world revolution. Marxist propaganda at speeds of 300 to 14,400". This is a typical example of the humorous and sarcastic writing style of the hobbyists. Source: Kauppinen, Jukka O.: Neuvosto-Savon historia (2008).

When discussing the history of the BBS culture, we should also bring out the intimate and personal nature of BBS activity that many respondents felt had vanished due to the popularization of the internet. From a research perspective, the BBS culture appears to be a partly independent and original phenomenon in the history of information networks. To me, this is the most fascinating conflict in the BBS world: at the same time, it was open and aimed at networking, but also closed and private.

Conclusions

It is very difficult – practically impossible – to achieve an overall image of the time period when the BBS culture landed in Finland and developed into a significant field of activity that attracted young people. The sources are dispersed, some have disappeared, and users' memories have changed over time. However, something can be done; the purpose of this paper was to compile flashbacks of the transformation of the Finnish BBS culture.

Nowadays, it is difficult to imagine a time without the internet: no email, no Websites, and no social media. In this narrative, the BBS falls under the radar of modern network culture: its status and significance as a "pre-internet" must neither be overemphasized nor underemphasized. The development of the BBS culture can be divided into the early period of the 1980s, characterized by the expert nature of the activity and professional improvement, and the 1990s, which can be described as the stage of popularization and diversification of the activities. One could also add the late period that started at the turn of the 21st century and which is still ongoing. The most significant feature is the ways in which young users became familiar with BBS systems and shaped their own use culture on their basis. Thus, it cannot be argued that the BBS culture disappeared in the early 2000s. Instead, it evolved into something else, and the IRC and other internet services like Freenet Finland provided platforms for this transition. The same thing happened in other countries too, but despite this, national differences can be seen. For example, one international comparison point is the French Minitel – except that Finland did not ever have such a strong national network service. Instead, there was MBnet, Vaxi and hundreds of other services available.

The data evokes an image of an entirely new type of hobby that was initially met with a great sense of wonder. The most significant feature related to experiences and memories concerns the socializing role of BBSes: in the 1990s, in particular, young people discovered BBSes on their own or were inspired by a friend, after which those interested in the same hobby gathered together and continued in a larger crowd. BBSes were used to find new friends and acquaintances whom you could also meet personally. Some friendships became permanent. At the same time, connections were opened to elsewhere in Finland and abroad. On the other hand, in the 1990s – even at the peak of their popularity – BBSes were still an activity for specific groups of hobbyists. BBSes were – depending on who defines them – a subculture or a partial culture within the home computer hobby, and above all, BBSes were a network of communities.

The data suggests that communications and the acquisition of files were the two most important means of activity. This has also been emphasized in earlier research. The attitudes toward downloading files were clearly a divisive factor among the hobbyists. Files were exchanged in practically every group, but the most active hobbyists, in particular, looked down upon those who mostly focused on downloading files and did not participate in anything else. The significance of files also brings up the division of hobbyists into different generations; to adults over 20 years old, the activities of teenagers in the BBSes might have appeared to be childish and inexperienced.

The BBS hobby had its own rules, norms and courses of action, and this could also be seen in the playful, constantly changing use of language of the message areas. The hobbyists were arguing and fighting constantly, often in a stinging and hurtful way, but there was also a sense of playfulness involved that reduced the significance of the online insults. Some of the discussion material collected during the research also seems to support this: the nuances of the messaging are hard to decipher for a modern reader if they are not aware of the exact context of the dialogue. For the most part, hobbyists also used their real name or nickname (more common term was “handle”) in the BBSes, which directly affected the conversational habits, since, especially in smaller BBSes, the users knew each other personally.

The data from the BBS lists and the survey support the earlier observations regarding the diversity of the BBS culture. It should also be emphasized that, for many minorities, BBSes offered an excellent communication channel and created a sense of community that was undoubtedly in high demand. This aspect has rarely been discussed in studies, and it would be good to look into this matter further in the future.

The strong male dominance of BBS activity undoubtedly created friction for the few women and girls who were online. Despite this, the data does not present situations where the role of women and girls would have been questioned; apparently, they were welcomed – at least for the most part. Still, this topic remains an interesting but incomplete theme that should be analyzed in much more detail.

The sources also talk about the slowdown period of BBS activity, and reminiscing about it has also brought up comments that fall within the realm of information network nostalgia. For some hobbyists, the advent of the internet and the downfall of the BBS caused unpleasant

sentiments. Despite this, I feel that the nostalgic and bittersweet messages are more indicative of changes in life than changes in technology. Young people grew up, became adults, moved away from home, started studying or went to work. The old social circles had disbanded, but users could still meet face to face or on the internet. However, the old BBS magic seemed to have been lost, even though you could still encounter it in newsgroups or on IRC channels and, much later, on social media. For most hobbyists, however, this change did not cause major problems; when purchasing a new computer, they simply disconnected the old server from the phone line and BBS activity just stopped.

Studying the history of the Finnish BBS culture is both a challenge and an opportunity: on the one hand, the research may uncover new information on how modern network culture was born in Finland, but, on the other hand, the research may become so extensive that forming an overall picture becomes impossible. These challenges are also very visible in this article. However, it is the duty of a researcher to compile the results and move forward.

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All links verified 15.6.2020

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Notes

[1] The survey *Kokemuksia ja muistoja kotimaisen BBS-harrastuksen valtakaudelta* (Experiences and memories from the golden age of Finnish BBSs) (Komu) was open from August 11 to October 31, 2016. There were a total of 124 responses. The survey was promoted through social media, especially important were the Facebook group of the Skrolli magazine and the v2.fi website.

[2] Messages are from the following BBS systems: BBS Atom Heart Mother, BBS Kukkaniittu, BBS Finbox, BBS G-point, BBS Sdi and BBS Abomination. These systems were local, containing some 10–30 core users. On the other hand, data also consisted copied messages from bigger systems, like MBnet ja Amiga Zone. Messages were provided by former hobbyists.

[3] A comprehensive study of these messages was be published in 2019 (Suominen, Saaarikoski & Vaahensalo 2019).

[4] The slang word is a little difficult to translate, because in Finnish “messuta” also includes a reference to “loud talking”. Therefore a person who is “chanting“ is talking continuously and loudly and tries to attract the attention of the public.

[5] The name is a direct reference to studio album (released 1970) by the English progressive rock band Pink Floyd. “Perhaps, the best band, ever”, stated the Sysop in December 1995.

[6] Eng. ”Flower meadow“. “Niittu“ is an old Finnish word, used in Häme region (Tavastia Proper).