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The Nordic pioneers of New Media Art **By Björn Norberg and Jonatan Habib Engqvist**

In order to contextualise the Nordic Media art scene historically one should perhaps begin in the 1960's. The spirit of entrepreneurship and genuine curiosity over the possibilities of technology in experimental art prevailed and there was money to go around. Curators and artists started to investigate the possibilities of technology along side with civil engineers. Together these groups attempted to break down and reconfigure any established norms concerning art by questioning old techniques, dissolving and reconstructing images.

There were a number of different groups, institutions and key figures in this development. Many of them are still active and constantly gain new audiences and followers through the younger generations, but even those organisations and collaborations which no longer exist have through their activities in the 60's become a major source of inspiration for young new media artists.

In the Beginning, E.A.T.

One of the most influential key figures of the Nordic scene was the engineer Billy Klüver and his Experiments in Art and Technology, E.A.T. There has been a renewed interest for this work in the Nordic countries lately, partly due to intense discussions on the concept of artistic research.

Klüver (1924-2004) was born and raised in Sweden but moved to Paris in the 1950s where he first met Jean Tinguely (1925-1991). This would prove to be an important meeting. Approximately ten years later they would meet again in New York and embark on a journey into experimental art.

Klüver had a PhD from UCLA and was employed as an engineer at Bell Industries Bell lab in New York. The director of Moderna Museet in Stockholm, Pontus Hultén, asked Klüver to contact Tinguely and see if he needed some help technically since he was going to make a large installation at the back yard of the MoMA. The result was the famous *Hommage a New York*, a huge installation built out of bits of old chairs, bicycles and any kind of material Klüver and Tinguely could find in the streets and in city dumps. During a performance night the installation went down in clouds of smoke.

Later on Robert Rauschenberg asked Klüver for help with an installation called *The Oracle*, now in the collections of Centre de Pompidu in Paris.

Klüver was not able to help with all the technology Rauschenberg required but together they built up an interactive installation run via radio frequency.

Rumours spread and several artists would address Klüver with different project proposals. Klüver started to engage his colleagues at Bell Labs at night and as the amount proposals increased Klüver and some other artists decided to start a pool for artists and engineers - E.A.T

Eventually the experiments performed within E.A.T. became an official activity of Bell Labs and were magnified in the project *9 evenings* where different artists were invited to make one project each with the support of engineers from Bell Labs. Among these artists were of course Robert Rauschenberg but also the Swedish artist Öyvind Fahlström (1928-1976) who made a performance, or rather a theatrical play, including many different medias.

Fahlström was a pioneer within the Swedish sound art and poetry. He was early to realize the power of mass media, especially television, and obviously used both paper and TV-shows to

market his actions, gaining a new and bigger audience. His piece for *9 evenings* included some complicated technological solutions. For example he asked for snow that fell upwards.

Fahlström became one of the most important artists within psychedelic art and pop art but has been of less importance for the new media scene, except for his work within in the radio where many Nordic artists still refer to his work. The work of Billy Klüver has however been a major influence. Klüver also became a very important contact for the Moderna Museet in Stockholm and it's director Pontus Hultén (1924-2006). Under his direction the museum became one of the most dynamic European art institutions of the 1960's and the first important contribution was the legendary exhibition *Moving Art/Rörelse i konsten* from 1961. With the help from Klüver, Hultén and the museum invited a number of artists dealing with different forms of kinetic art, including the work of Jean Tinguely. The exhibition and it's experimental form had an enormous impact on the Nordic scene.

Tinguely would come back for another exhibition in 1966 together with Niki de St Phalle and the Swedish artist P.O Ultvedt (b. 1927) who's practice could be described somewhere near Duchamp (the roto reliefs) and Tinguely. Together with Hultén they started to plan what to do, quiet close to the opening of the exhibition. Late in the process they decided to build up a gigantic woman in the style of St Phalle in papier maché. Inside the 28x8 metre sculpture they placed a multi-medial exhibition including a milk bar in the right breast and a planetarium screening of the Milky Way in the left, a mechanical man watching TV in her heart, in one of her arms a screening of a Greta Garbo movie and in one of her legs there was a gallery with fake paintings of old masters. The audience entered the sculpture though her sex. The installation, *She*, became a great success. Hultén would in 1968 curate the *Machine as seen at the end of the mechanical age* at MMA including pieces of f ex Nam June Paik before he in 1973 became director of Centre de Pompidou in Paris.

Organising Freedom?

Looking back at the 70's and the 80's there seems to be a lack of greater initiatives within the Nordic new media art. There is a generally a scepticism to computer art and it would take until the late 80's until even video is widely accepted. Moderna Museet didn't play the same important role as it did for the field in the 60's. The experiments and development took place more among single artists and a few smaller groups who more or less belonged to the margin, with a few exceptions, as will be described below. It would take until the mid 1990's and the Internet boom for a larger movement of Nordic new media art when artists started to organise themselves to share expensive equipment. Important examples are CRAC in Stockholm, Atelier Nord in Oslo (which started in 1965 as a studio and workshop for graphic artists, included video and digital studios in 1993 and works with new media exclusively from 1998), BEK, Bergen Center For Electronic Arts in Norway, i/o/lab in Stavanger in Norway (who organised the first Article festival for unstable art in November 2006) and Muu in Helsinki in Finland. These organisations help artists with knowledge and equipment but also run various projects and curate exhibitions.

In the 90's there were also a number of organisations devoted to the production of art projects and exhibitions apart from those already mentioned. In Sweden - Electrohype in Malmö which produces the Electrohype biennale, Splintermind in Stockholm (shut down their activities in 2005) produced exhibitions for museums and web TV, Motherboard in Norway, PicelACHE in Finland; an annual festival for media art, focused on activism, open source, demoscene and VJ:s run by Finnish media artist Juha Huuskonen, Katastro.fi which is an artist-run organisation formed in 1998 and M-Cult, established in 2000 mainly focused in participatory, wireless and urban-based projects. M-Cult organised ISEA 2004.

Sweden

To describe the history of Swedish new media there are a number of important independent organisations that has to be mentioned. Apart from the Moderna Museet there were a couple of other central points in Sweden. One was Fylkingen which started already in 1933 but then as an association for classical music. In the 1950's it developed towards more experimental music and produced the first Electro-acoustic concerts in Sweden in 1952. In the 1960's the scene became more radical and also started up a studio around electro-acoustic music, EMS. Both Fylkingen and EMS is still important scenes for the experimental art forms in Sweden. One of the private galleries in Stockholm that soon became well known for a radical attitude was Galleri Karlsson. Its first exhibition was Ture Sjölanders *ni är fotograferad (You are photographed)* in 1964. Sjölander (b. 1937) belongs to the very pioneers within new media and video art and already in this first exhibition he understood the impact that television had on it's audience.

After a television show from the exhibition, Sjölander's photography contained a raw attitude against photography and the naked model, 10.000 people visited the gallery. With this experience he contacted the Swedish Television in 1965 for another show where he included exhibitions in two cities, billboard advertisement in a third and a TV-production. It was meant to be a large multimedia happening but the state television refused to broadcast his production since they found it too provocative. Instead he was offered to make another TV-production where he collaborated with the artist Bror Wikström. Sjölander had according to himself already as a teenager experimented with distortions on television screens and along with the engineers at the Swedish television the artists could perform wild experiments in a piece that was given the title *TIME*. They were not able to work directly with the video signal so they had to transfer the monitor to film and then back on video to create the effects.

In 1966 Sjölander started to collaborate with the journalist Lars Weck in a project called *MONUMENT* where they worked with television in Sweden, Germany and France. The result was broadcast in USA along with several countries in Asia and Europé. It was seen by an estimated audience of c:a 150.000.000 viewers and is described in *Expanded Cinema* by Gene Youngblood.

Sjölander and Weck used images of famous paintings and celebrities such as the King of Sweden, the Beatles, Charlie Chaplin, Picasso, Mona Lisa and distorted them so they were hardly recognizable. Stills from the film were then transferred to papers, magazines posters, textiles and paintings by the Swedish artist Sven Inge de Monér and a record with the soundtrack by the Swedish group Hansson & Karlsson was released. All together it became an enormous project, in line with the ideas of the multi-medial project Sjölander had been working on before. Sjölander is still active as a painter, conceptual and web artist.

Teresa Wennberg (b. 1944) had a very different attitude to the computer compared to other pioneers since she at an early stage stressed that the computer had an artistic expression in itself, discussing computer graphics as "objects". She left Sweden for Paris in 1974 where she found a different attitude to technology than at home.

Around 1978 she started to work with video and came in to contact with Ture Sjölander and they started the *Video Now (Video Nu)* association in Sweden which was important for the development of video art in Sweden. In 1983 she started to work with digital images and since 1998 she has been working as artist in residence at the Royal University College of

Technology, KTH in Stockholm and their VR-Cube environment. She is however probably more well known outside of Sweden.

In 1996 the Swedish artists Karin Hansson (b. 1967) and Åsa Andersson-Broms started the organisation Temporart Art [A:t] with a first net art exhibition with 20 Danish and Swedish artists. Three years later they organised the exhibition *Best Before* at Tensta art gallery that had a great impact on the Swedish scene. Among the artists in the exhibition one could find Ola Pehrson, (1964-2006).

Ola Pehrson participated with his piece *Yucca Invest Trading Plant* where a yucca palm was connected to a computer via electrodes. The impulses the palmtree gave to the Internet connected computer resulted in trade on the Swedish stock market. In this piece he linked the market to the nature in a very intelligent way - not only through the installations but also with market terms such as growth and off shots. A year later he created the *NASDAQ vocal index* which was a choir piece for 8 to 24 different singers where each singer represented one company stock on NASDAQ receiving “notes” in real-time according to the currents downloaded from the stock market. Pehrson also did some collaborations with the Interactive Institute in Stockholm, a huge research institute with several departments for technology development.

The SMART studio (which changed name to simply Art & Technology in 2006) is maybe most famous for their *Brainball* installation. It was created by a team of artists and engineers, among them Arijana Kajfes and Thomas Broomé (b. 1971). The game is played by two persons sitting on each side of a table and wearing sensors measuring the brain activity. The point is to get as low activity as possible. If you reach a lower activity than your opponent a ball will start to roll forward. The game is over when the ball reaches one of the short ends of the table.

Arijana Kajfes was artist in residence at the Interactive Institute and during the time she worked with her *Ocular Witness* project where she made a research on aspects of light seen from a physicist’s point of view. The project received an honorary mention at Ars Electronica in 2006 along with another Swedish project, SUBJECT by Italian born Alberto Frigo (b.1979) now living in Stockholm. For three years he has been photographed every object he has used with his right hand. The result can be seen as investigation of his relation to objects and a large database of over 100.000 images so far.

Another method for documenting ones life can be found in Mikael Lundberg (b. 1952). In *Lifeline* he tracked his movements using a GPS device for one and a half year (2004 and 2005). Ten years earlier he had his remaining life time calculated and created *Lifetimer* a digital clock that counted down the estimated time in seconds.

Although she is of Swedish origin **Lisa Jevbratt** (b. 1967) might be better known outside Sweden. She moved to USA in 1994 and started to work with e-mail art in her project *Hej Gud (Hi God)*. A year later she started to work with web-pieces. She should definitely be regarded as one of the early pioneers even if she didn’t belong to a net-art group. She still lives in the USA,. She is employed as Associate Professor at the University of California and a member of the artists group C5. She often produces web-based work with a typical “meta-web” touch. For example, in *1:1* from 1999 she created a database that used a webcrawler to collect all URL:s in the world. She soon discovered that the web was growing faster than the database.

In *Infome Imager* Jevbratt used a crawler to collect different information about web sites such as their length, when they were made, which network they belong to and what colours were

used. This information was then selected by a computer and images functioning as statistical diagrams found were created.

Recently Jevbratt had a piece, *Rösten (The Voice)* commissioned from the Swedish National Public Art Council which might be the first commissioned web piece in Sweden. Here she displays all keywords typed in the internal search engine of the councils website. The words are displayed in chronological order and are shortcuts to relevant information belonging to the keyword.

One of the founders of CRAC is the Swedish artist **Peter Hagdahl** (b. 1956), currently professor in media art at the Royal University College of Fine Arts in Stockholm. Peter has for a long time been focused on the complexity of actions and interactions in society between people and technology and in different virtual spaces. His public project created for the University College for Teachers in Stockholm, *Dream Generator*, consists of several sensors placed in the university. The sensors pick up the activity inside the school and the information generated is used as data input for a 3D-animation which starts to move according to the data. Hagdahl has influenced the Nordic scene intellectually and practically, as the initial force behind CRAC, the new media laboratory Mejan Labs (in 2006) and as a professor at the university.

In the 1990's Hagdahl made a number of collaborations with **Carl-Michael von Hausswolff** (b. 1956) who not only is one of the most important names of Swedish sound art. but also a visual artist of importance. He has in a number of installations been working with radar equipment and oscilloscopes to describe reality through these technologies.

In his composing he has been working with everything from tape recorders, DAT and radio frequencies to more updated technologies such as samplers and lap tops in order to create noise compositions. C-M von Hausswolff was given an honorary mention in the Digital Music category at Ars Electronica 2002.

Iceland

Another important pioneer of new media and video from the Nordic countries is of course **Steina Vasulka**, born in 1940 in Reykjavik in Iceland. In the 1950's she came to Prague to study violin where she met the Czech engineer and filmmaker Woody Vasulka. In 1965 they moved to New York where Woody started to work in the film industry and Steina free-lanced as musician. Woody had started to make experiments with electronic images and sound and brought some of the equipment he was working with within the company home and Woody and Steina started to experiment with video technology.

For Woody the video technology offered a way to question narratives and he was amazed by the possibilities of video feedback. Together and probably thanks to Steina's background as a musician, they also started to connect audio inputs to the video in order to create different effects.

They realized that both the audio and the video signal consisted of waveforms and that these could be exchanged, in turn generating interesting results that could be processed to a complete piece.

In 1971 they started *the Kitchen* which became a home for experimental video, music and performance projects and discussions. From working closely with Woody during the 1960's Steina started focus on her own work in the 1970's. Her *All Vision* and *Machine Vision* series are today considered as milestones within the new media art. She started to separate the videocamera from the human view in different installations. She used a mirrored sphere placed on a crossbow and at the end of the crossbow there were two cameras, one in each end. As they were filming a spherical mirror they could project their entire surrounding space,

360°. She also started to experiment with the violin run through an audio synthesizer in order to affect video signals in her project *Violin Power*.

In the middle of the 1970's the Vasulkas started to collaborate with programmers which led to development of digital tools such as *Digital Image Articulator/Imager*, used in several pieces from the 1980's. Steina would in the mid 1990's work as artistic director at STEIM in Amsterdam where she together with Tom Demeyer developed one of the first VJ soft wares, the *Image/ine*.

Steina's pioneering work is of great importance for the development and understanding of both video and new media art and has inspired many artists. Both her and Sjölanders art was for example great sources for the Swedish artist group Beeoff when they, in 1996 started to experiment with analogue and digital video in combination with Internet streaming. This resulted in the *nonTVTVstation* project and the streaming organisation Splintermind that includes a network of a large number of artists, galleries, museums and organisations all over the world. Participating in ISEA 2004 and the Parisian La Numérique festival at La Villette science parc the same year.

In Iceland Steina has few followers and there are quiet few new media related artists. Some of them, such as net artists Paul Thayer and Ragnar Helgi Olafsson (b.1971) have organised themselves in an association called Lorna. Olafsson is famous for his piece *Web waste* where the web visitor is invited to upload his/her computer trash bin to Olafsson's piece. The waste is exposed as it is in a mess of text, images and sound. Olafsson has also worked with interactive video installations. Another Icelandic artist Finnbogi Petursson (b. 1959) has received great attention for his sound art installation that all of them connect to the minimalism of the 1960's. For the Venice Biennale in 2001 he created the installation *Diabolus* where he used the interval between two tones that the Vatican church banned in the middle ages. The interval is called "diabolus in musica" but the reason why it was banned isn't necessary because that it was expected to call forth the devil. Some music historian think that it just was thought to be a very unnatural combination of tones. In *Diabolus* Petursson built up a small building, narrow as a corridor, where he had to sound sources. One was a speaker with a 61,8 hz tone and the other an organ pipe driven with a 44,7 hz. The two tones represented the diabolic interval but also created not hearable 17hz sound wave, an effect he also uses in installations as *Dream* and *Sphere* where the very low frequencies affect a water surface. The minimalism he has in common with the Danish artist Jeppe Hein (b.1974) who in his installation *Invisible Labyrinth* created labyrinths where the walls was just infrared light. With a special headset you felt the walls as vibrations if you walked into them. The form of the maze changed from day to day and had famous patterns such as PacMan or the labyrinth outside the hotel in Kubrick's film *The Shining*. In 2002 Hein smashed the white cube of a gallery with a ball of metal with the diameter of 70 cm. The ball was moving in the empty space, activated by a sensor and the appearance of the visitor, crashing into the walls, corners and heaters of the gallery.

Denmark

The Danish artist **Mogens Jacobsen**, b. 1959, has in some studies on time and dynamics in video reached results that reminds of Steina Vasulka's work. Lately he has been working with an own software that allows him to regard the video as a 3D object in a space more than a chronological sequence of frames. Jacobsen belongs to the first generation of artist that understood the possibilities of the computers, to make art with the computer exclusively without the need to make a print or to transfer it to a stable media to get an artistic result. Of

course this is thanks to their chance to work with computers powerful enough but also it belongs to a shift intellectually where they saw that computers had a value in themselves and didn't have to be transferred to traditional techniques. This can be compared to digital pioneers such as the Swedish artist duo Beck & Jung, Sture Johannesson, Ann-Charlotte Johannesson, Kars-Gunnar Bodin, Sven Inge de Monér and Torsten Ridell who used computers to design images that were then transferred to graphic prints or painting. One odd example worth to mention is Göran Sundqvist (b. 1937) who was computer engineer at SAAB in Sweden and was from 1958 working with the development of pioneering computers as SAAB D2, D21 and D22. Those were the first transistor based computers in Sweden. He came in contact with composers at Fylkingen in Stockholm and for fun and for demos of the machine he let it compute some music pieces. He also programmed a few games on it and made some digital images, but they had to be photographed to be preserved since he used an oscilloscope as a monitor and of course had no print options.

Mogens Jacobsen didn't experience the same attitude problems as Wennberg even if the computers of late 80's or early 90's definitively had their limits. For three years in a row, from 1993 to 1995 he received an honorary mention at Ars Electronica. The first two years in the category computer graphics and in 1995 in the category interactive art where he with the installation *The Entropy Machine* finally managed to free the computer from the traditional art techniques.

He had by then gone through a process where he looked for a possibility to use the computer in a way that wasn't just a substitute for "the pen, the brush and spraycans" since he had seen it's possibilities with interactive communication, advanced information processing and simulations.

With *The Entropy Machine* he worked with the ideas of cloning, hormone therapy, DNA etc. that emerged during the biotechnological revolution of the 1980's and lead to many different applications during the 1990's. This installation consisted of five framed images and a metal box with sides of fabric. There was a monitor inside the box surrounded by petridiscs containing cultivations of bacteria. The box functioned as a "information greenhouse" together with a computer that chose among 40-50 different images that were screened on the monitor. A cellular automata algorithm changed the image on the monitor through every generation it passed. After a while it started up with a new image and algorithm chosen according to the temperature inside the box. Since the temperature was crucial for the growth of the bacteria it had a double function, it stimulated both the cultivations and the digital images.

The same year Jacobsen was involved in the founding of the Danish organisation Artnode which has since then been an important node for new media activities in Denmark. It functions as a intellectual resource with articles, as a producer of exhibitions and net art and as an archive and gallery for net art.

This is remarkable early - the same year as äda'web started and one year before Rhizome. Danish Artnode is still very active and should not be confused with the Swedish organisation with the same name.

In Denmark two artists groups have developed very large projects that mix activist thinking, business strategies, design and technology. Superflex is maybe a more "relational" art group but their project Karlskrona2 from 1999 showed early on the possibilities virtual environments can offer. They built a virtual copy of the Swedish city Karlskrona and the inhabitants in the real city could create avatars to inhabit the virtual city. As avatars they were able to change the city and rebuild it. The project showed on how virtual space could be used

as a democratic tool in city planning and how it could be used to catch up ideas from the inhabitants of a city.

N55 is a Copenhagen based artists group that started with an aim to rebuild the city from the within and are working with different activist projects that merges technology, design and architecture. In 2000 they created *FLOATING PLATFORM* and *N55 SPACEFRAME* which together functioned as a working space and home for the artists group. They have created alternative architecture for mobile and compact living but also created *ROCKET SYSTEM* which is a rocket that can spread flyers from an altitude of 5200 metres.

Norway

Norwegian artist **Stahl Stenslie** (b. 1965) became the father of cyberex after his *Cyber SM* project in 1993. The project was aimed at creating a system for real-time, visual, sonic and tactile communication over telephone lines. Stenslie created two “stimulator suits” that two people could use to physically touch each other over distance. In 1993 he used the suits to connect users in Paris and Cologne.

HC Gilje (b. 1969) has been devoted to real-time video processing for many years. He started with Steina and Demeyer’s *Image/ine* and later went on to *MAX*. Working with these tools he points out that he can work in real-time but still have full control over both structure and context. He tries to focus on perception and conception of reality using the technology. In 1999 he started to investigate live aspects of video with music, dance and theatre as references since these art-forms had a history of improvisation and real-time. He has since been working on his own and in the VJ group *242.pilots* and as a part of the Norwegian dance company *Kreutzerkompani*.

Finland

The Finnish new media scene woke up very late and it wasn’t really until the 1980’s when the first video piece was made. It was by **Marikki Hakola** (b. 1960) and the Turppi-group - *Earth Contacts* from 1982. But new media was not really established in Finland until the mid 1990’s. There was however one early and important figure on the Finnish scene: **Erkki Kurenniemi** (b. 1941)

Kurenniemi isn’t only a true pioneer of the Finnish scene but belongs to the pioneers of the global new media. Already in the 1960’s he composed computer-generated music and designed his own synthesizer -the *Andromatic* (1968), purchased by the Swedish composer Ralph Lundsten. Since then Kurenniemi moved between art and science, music, film, computers and robotics. Around 1970 he worked with a number of original synthesizers in the *DIMI* (Digital Music Instrument) series. In 1971 he collaborated with dancers around his *DIMI-O*, a type of video synthesizer which used the motions of the dancers to generate a real-time soundtrack. Other *DIMI*:s were *DIMI-A* which was played by using “electric pens”, the *DIMI-S* which was played by four people touching each other and the *DIMI-T* that generated sounds by measuring the brain activity of the player. Kurenniemi has since then been working with Artificial Intelligence the aim to merge man and machine.

When video became established in the 1980’s a number of video artists entered the scene. Among them of course *Eija-Liisa Ahtila* (b. 1959) who has established herself as a major

international video artist. Marita Liulia (b. 1957) was the first Nordic artist to work with CD-ROM and received an honorary mention at Ars Electronica with *Maire* from 1994. She also had a great success with her piece *Ambituous Bitch* from 1996 where she investigated femininity. This piece was followed by *Son of a Bitch* (1999) where she worked with masculinity in the end of the millennium. She created a virtual apartment of the psychoanalyst Jack L. Froid in Quicktime VR where one is guided game by the virtual butler Esco through a milieu that works in a similar fashion to an epical computer. Froid who is an expert on masculinity has left the apartment empty for our investigation of the ideas of the modern man.

New media art is now well established within the Finnish art. None the least thanks to a number of small and vivid organisations and festivals such as the artist group Katastro.fi, the new media festival PixelACHE, artist run organisation MUU, M-Cult (who produced ISEA 2004) and AVANTO festival but also thanks to the contemporary art museum Kiasma who has organised a number of important exhibition and bought several pieces to their collection and who had a media curator when they were established in 1998. Around them a number of young artists have developed their practice.

The British born artist Charles Sandison (b. 1969) moved to Tampere in Finland in the mid 1990's. He has described himself as a writer born in an artist's body and creates digitally generated installations that combine the possibility of computers with concrete poetry. For *Living Room* from 2001 he wrote a soft ware that simulates human behaviour using Artificial Intelligence. Using computers and projections he fills a space with words moving, living and reproducing. They move around, interact with the room and chase or avoid each other, and if they meet they meet they either eliminate each other or create new words.

He uses a few words, each with a special behaviour: MALE (they are hunting for FOOD), FEMALE (avoids MALE until they have eaten FOOD), MALE hut FEMALE to reproduce, FATHER replaces FOOD. When the population has grown to big a deadly VIRUS is spread and all words will die when they have reached a certain age. In a similar installation, *Good & Evil*, from 2002 he uses only two words, GOOD and EVIL. Both of them try to expand on the expense of the other. When they collide one of them disappears.

Summary

Summarizing the Nordic new media art scene and starting with the 1960's it is obvious that the important development takes place among artist collaborations with a great exception for the dynamic first period of Moderna Museet under the direction of Pontus Hultén, and perhaps Kiasma in Helsinki when it opened in 1998. Artists have gathered together sharing expensive equipment around common ideas generated by new technology and certain movements in the society in general. One example is what happened around the Internet boom in the mid 1990's. Also some large companies, where artists had a chance to experiment with new technology have played an important role. Examples are f ex SAAB and the Swedish state television in the 1960's. Hopefully this survey of the Nordic new media art can show on some characteristics that can be compared to the global scene in general. The latest decades of great exchange with the international scene has of course meant that the Nordic art scene might have lost a Nordic identity, if there ever was one. However looking at the history some of the artists mentioned above must be seen as really pioneers, even in an international perspective, and deserves to be a part of the international new media canon.