

nordic media culture - actors and practices

eds. minna tarkka and miriam martevo

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I introduction

pia vigh, foreword

Digitalisation has multiplied the distribution channels – the new media – for cultural content; production, creation and dissemination of culture and art. Both the circumstances of production for new media culture and the ways new media content is consumed are changing. New media represents a constantly shifting frontier for experimentation and exploration. While new media are understood in terms of the older media that precede them, they are nonetheless freed, at least to some extent, from traditional limitations. Figuring out how the new tools work calls for innovation and encourages a kind of beginner's mind. The new media thus attract innovators, trendsetters and risk takers - and some of the hottest creative minds spend their time hacking around with new technologies, clustering together in networked sites such as media labs, workshops, mailing lists. We need to connect and interact with these designers of the future and their organizations.

This study on the actors and practices of Nordic media culture shows the vast differences between the Nordic countries in networking and supporting new media arts and culture. Yet a common trait seems to be the inadequacy of financial support and – to some extent – critical context.

The creation and consumption of digital content is growing fast. New instruments for supporting and dissemination are needed to take full advantage of the changing environment. Grants and subsidies are no longer always able to meet the needs of the developing digital culture industry and art creation. Instead, new adequate funding tools need to be developed to sustain Nordic new media culture. It seems that the national models are far from serving the needs of new media actors and industry, and it seems obvious to argue for a strong body to work with the national networks and labs, to provide substantial funding and to serve as a spinning vehicle for a critical community of Nordic media culture.

Because of their newness, the new media are slightly beyond the effective reach of our established institutions and bureaucracies. Art – and in a general sense culture – has always been bound up with new technology, and artists have always been among the first to adopt new techniques as they emerge. Still, it sometimes seems that the technological frontier of creating art and communicating culture is where institutions and official bodies of culture fear to tread.

The popular understanding of new media identifies it with the use of a computer for circulation and exhibition, rather than production. If we are to understand the effects of computerization and digitalisation on culture as a whole, this understanding is certainly too limiting. There is no reason to privilege computer-based exhibition and distribution of media over computers as tools for media production and storage. All of these uses have the potential to change existing cultural languages, or to leave culture as it is, even if the latter is highly unlikely. The question is: do the official bodies of culture and decision makers have the potential and will to change accordingly?

Pia Vigh

Senior Advisor, Nordic Council of Ministers/Culture, Film and Media

mirjam martevo & minna tarkka, introduction

This report brings together results from the research project *Nordic media culture – actors and practices* realised in 2002-03. The project was coordinated by m-cult, centre for new media culture in Helsinki, and realised in collaboration with Production network for Electronic Art PNEK, Oslo, Creative Room for Art and Computing CRAC, Stockholm, Lorna, Reykjavik and CultureNet Denmark, Copenhagen. The project was funded by the Nordic Council of Ministers and the Nordic Cultural Fund, and received further support from bilateral funds between Finland, Sweden, Iceland and Denmark.

The survey realized in the context of the project involved almost 150 respondents – individual practitioners as well as representatives of various organisations and companies active in the field. The survey brought us information on the work and education history, organisational setting, funding and revenue models of the actors. We also asked the respondents to evaluate their skills as well as the support structures of the field.

This report includes a brief overview of the Nordic ‘scene’ as well as more detailed reports from each of the five countries. The essays are illustrated with project presentations which exemplify best practices in each country, and summarised in key findings and proposals for action. The report also contains a catalogue of key actors, in which we have included the main cultural organisations and funding agencies for Nordic media culture. Besides the report, results of the survey are published online in the m-cult.net database of actors, where over 200 organisations, companies and projects are profiled. m-cult.net will continue to bring further exchanges and information on Nordic media cultures available both for the Nordic practitioners and their international peers.

The project was launched in June 2002 in a seminar at Hanasaari, Espoo and its evaluation meeting was held in Helsinki during the Prix Möbius Nordica competition in January 2003. The period in between was rich with encounters, many of them involving the kinds of fruitful friction and new insights that are always generated when one crosses over national and disciplinary boundaries.

We wish to thank the wonderful group of women with whom we had the pleasure to work on this project – Siri Bjurwill and Vanessa Ware, Janne Stang Dahl, Anne Mette Stevn, Lisbeth Brodin and Margrét Elísabet Ólafsdóttir as well as Pia Vigh – whose communicative skills and expertise were needed in realizing the survey and report. To Tiina Porthan, Susanna Koskinen, Rasmus Vuori and Matti Knaapi we extend our gratitude on database design and editing. Our warm thanks for support and expertise go to Marianne Möller at the Nordic Council of Ministers, Anna-Maija Marttinen from the Swedish-Finnish Cultural Centre Hanasaari, and to Tapio Mäkelä from m-cult.

Helsinki, March 26, 2003

Mirjam Martevo
Research project coordinator, m-cult

Minna Tarkka
Chair, m-cult

minna tarkka

notes on nordic media cultures

The research project *Nordic media culture – actors and practices* brought to light a host of heterogenous actors and practices while it made explicit some intuitions about the cultural and political anatomy of the field. This introductory essay presents a view to the overall findings and experiences gathered during the project. The overview is based on close readings of the national reports and surveys, discussions among the Nordic research partners as well as field notes from trips to the various nodes of the research project.¹ The attempt is to create an overview of the current situation of Nordic media culture, make comparisons with developments in some European countries and proposals for further development. The results are tentative – many issues remain open and require further, more detailed research.

The first questions to be asked are obviously: Are there features in media culture that could be called particularly Nordic? Is there a distinctive *Nordic* media culture? The answer for these question would be both yes – and no. There are, certainly, features that are common to media cultural practice in the Nordic countries (and even globally); and the Scandinavian policies relating to media, culture and IT are crafted along very similar lines. However, the research proved that there is considerable variation in how media culture has become organised in practice in the different countries.

This is why this essay speaks of Nordic media *cultures*, in the plural.² The differences are not only national, they are also local and regional. An ideal, dynamic local milieu for media culture seems to consist of a combination of artist-run media labs, collaborating with education and research institutions, as well as of a work and social infrastructure provided by small companies and venues such as clubs and galleries. In smaller cities the communication and collaboration between these actors often seems to work better than in the capitals – for example, Trondheim and Malmö seem to provide extremely lively and productive environments for media culture.³

a hybrid practice?

New media culture is a field which proudly professes to be 'hybrid'. What does this hybridity entail and is it an unproblematic indicator of good practice? In order to introduce the field and create a background to some of its problematic issues, I will briefly look at how hybridity is manifested in the modes and genres, inter-disciplinary practices as well as in the politics, and economies of media culture.

hybrid media genres

Firstly, new media culture is, of course, about *multi-media* in its combination of audio, visual and textual modes for digital and interactive productions. Notions of multimedia, mixed media or intermedia were used to describe artistic practices already decades before ideas of media and technological convergence gained ground; and especially among the more mature generations, the practitioners often mention a 'background' in one media or art form.

The convergence of media technologies has however been accompanied by a *divergence* of applications and audiences and a constant proliferation of new *hybrid genres* such as virtual communities, location-based gaming, net art of software art.

From the original notions of screen-based multimedia, new media culture reaches down to algorithmic code structures and out to public environments redefined by pervasive computing. Instead of content creation, practitioners conceptualise their work in terms of *context creation*⁴, which indicates a new kind of site-specificity, both virtual and material, in communicating with the diverse users and audiences. The *networked* and *interactive* quality of new media culture is thus a key aspect of its hybridity: the relationship between production and reception of media is dissolved in communicative projects that are formed more as processes than as distinct products.

interdisciplinary research and development

Secondly, hybridity entails different forms of *multi- or inter-disciplinary work* – the coming together of different research disciplines and professional specialisms. In the field of media culture, the notion of “art, science and technology” collaborations was introduced by the first electronic arts practitioners in the 60’s and 70’s, most prominently in electronic music’s composer-engineer interactions. This work has involved collaborative and research-driven development of software and tools for visualisation and composition, but also the production of experimental interfaces. Traditionally, the role of the artist in these collaborations was seen in ‘humanising’ technology. Artists have also been described as innovative ‘advanced users’ or ‘early adopters’ of technology, who push it to the limits while searching for new potentials for expression and communication.⁵

In assessing inter-disciplinary work, the important questions to be made relate to the actual ways in which collaboration is practiced. Is there a truly hybrid practice emerging, or are the boundaries of the disciplines further strengthened in the collaboration? Which discipline drives the development – for example, is the artist seen as user or content provider of the platforms, or is the cultural practice extended to redefine the objectives of technology development? To address this issue, the notion of *trans-disciplinarity* has been proposed, where the disciplines move to an interference or interpenetration of disciplines which makes it possible to define completely new, innovative research agendas.⁶ An example could be found in the field of humanities informatics, which originally used computing for the discipline’s traditional information processing needs but has evolved into a co-development and a mutual questioning of agendas in humanities and computing.⁷

media politics and social intervention

A third hybrid tendency of new media culture relates to *media politics and social intervention*. Since early video art, there has been a strong motivation in media cultural practice to work towards democratised media production and delivery. This politically oriented thread of media culture spans the so-called Guerilla video groups of the 80’s with their mobile video units, ‘tactical media’ practitioners who use combinations of hacked-together hardware

and streaming media to campaign for social change, and Indymedia centers which provide channels and workshops for alternative communications. The interventions of 'activist' media culture are usually participatory, networked and realized often with local communities, minority groups or NGOs.

An obvious continuation of this sociopolitical tendency is represented by new media practitioners' commitment to open source software – and to the building of a *digital public domain*.⁸ Besides questions of access and ownership, cultural resistance towards mainstream software production also addresses the biases and politics embedded in software itself, by deconstructing and making visible the ways in which the procedures and interfaces of software frame the user.

new media as popular culture

A fourth aspect of the field's hybridity indicates a new sensibility towards *cultural economies and media consumption*, a sensibility which transgresses the traditional opposition between culture as an end in itself and economy as a purely instrumental activity.⁹ This sensibility may be linked to decades of discussions in cultural and media studies, as well as in postmodern theory and practice, both of which approaches – though with different emphases – have focused on processes of meaning-making, symbolic exchange and media consumption, foregrounding the products and practices of popular culture.

Further momentum to this sensibility was, of course, brought about the growth of new media industry in the 90's and the continuous professional crossovers between culture, commerce and technology it created. Especially for the younger practitioners, with their Amiga childhood¹⁰, new media culture is a "way of life" where the boundaries of work, consumption and sociability dissolve in the networked environment. A 'prosumerist' culture of user-producers is typical of the new media sub- and club cultures, demo scenes and gaming communities.

These new cultural producers have been said to represent a subcultural entrepreneurialism, driven by passion and pleasure, self-actualisation and creativity rather than by traditional notions of work ethics or profitability.¹¹ Indeed, a new paradigm of work seems to emerge in this field where freelancing and project-based work is a rule. Practitioners of the so-called creative industries have been described, somewhat paradoxically, as "cultural workers with an entrepreneurial mindset" – flexible, opportunistic and individualistic.¹² This mobility may be seen as an extension of new media culture's tactical practices, but it is also enforced on the strategic level; in national policies which during the last decade have increasingly stressed the industrial and business aspects of media and culture.

From this brief review it becomes obvious that the 'hybrid' discourse and practice of new media culture dismisses traditional notions of high culture or art, and instead focuses on the various ways in which media, technology, economy and society are intertwined in practices of production and use. This is probably one reason for the fact that many practitioners actually resist being categorized with professional labels.¹³

Creativity in this field is thus not any more represented by the expressive artist or individual only: a much more inclusive concept of social and technical creativity is at stake, characterized by a strong participatory and collaborative emphasis which also takes the users' creativity

into account. Indeed on several occasions, the field has been described as working towards *cultural and social innovation* through creative applications of technology.¹⁴

some scandinavian comparisons and good practices

The review pointed out the variety of contexts and networks where new media culture is practiced – in art and design studios as well as universities and technology research institutes, within local communities as well as within commercial and industrial milieus. This also means that ‘hybridity’ is interpreted in a variety of ways in the different locations. In the following I attempt to look at the different articulations of Nordic media culture, pointing out some of its successful areas and weak points.

strong areas and weak points

In searching for successes in multimedia and media art, one could start with Finnish media art, which has been stated one of the prime ‘export’ items of the cultural sector. Another dynamic area is represented by the Norwegian electronic art scene, where special competence can be found eg. in electronic sound and open source tools development for networked music collaboration. The Finnish and Norwegian practitioners of multimedia and media art have also received wide international recognition (eg. Marita Liulia’s *SOB* and *Kharon 4A* by org.dot). In both of these countries, a possible reason for the success is to be found – in addition to the work of the individuals and organisations themselves – in the long-term international networking and the development of critical discourses via seminars and publications.

Inter-disciplinary research and development of media culture and technology is also well underway in the Nordic countries. A model of best practice is given by Sweden’s **Interactive Institute (II)**, a network of interdisciplinary research studios that spans the whole country, building on and generating local expertise. The model of the Interactive Institute also gave birth to the **Nordic Interactive (NI)** research network whose members represent R&D units from universities, research institutes and industry.

Both II and NI build on networks established through the strong Scandinavian movement in human-centred, participatory and interaction design, the main hub for which is located around Öresund, with **IT university of Copenhagen (IT-C)** and **Malmö University Art & Communication (K3)** representing its nodes. Multi-disciplinary hubs for new media design and research can also be found at **UIAH Media Lab** (Helsinki) and **University of Lapland** (Rovaniemi), which also offer doctoral programmes in the field of media design and art.

The Nordic countries also have several transdisciplinary research nodes for media and cultural studies, relating to information technology and society (eg. **Hypermedia lab** at Tampere, **Intermedia** at Oslo) and to ‘digital’ humanities (universities of Aarhus and Bergen). The humanities and social science based institutes are taking on an increasingly ‘proactive’ role by extending fundamental research to participation in R&D projects. Of independent centers, **m-cult** in Finland is building a research & development profile in new media culture, with the aim of contributing social and cultural expertise to technology R&D and content production programmes.

Some interesting remarks can be made on the social and political thread in new media culture in the Nordic countries. Despite a general orientation towards social inclusion and an interest in the new public spaces defined by new media, activist and community-oriented media practice is quite scarce in Scandinavia, compared to the international scene.¹⁵ It seems probable that in Scandinavian welfare societies, where both social policies and citizen's access to technology are generally good (and despite discussions about the demise of the welfare state still articulated in national policies), the need for activism is felt only mildly. Instead, the social orientation is practiced in more 'reformist' ways: the Scandinavian traditions of human-centred and participatory design mentioned above have their roots in democratic workplace reforms of the 70's, where the de-skilling of workers was countered by involving them in developing the tools and processes of their work.¹⁶

As for open source and other areas of peer-to-peer communication and development, the Nordic countries can boast some key inventions relating to the field (such as Linux and IRC). While tools development and research is carried out in some cultural labs and universities,¹⁷ it however seems that the Nordic countries have not been able to 'capitalize' on the development of these platforms. This is a contradiction when one thinks of the public domain ethos of the Scandinavian welfare societies; which calls for active measures to strengthen Nordic open source development.

There is some variety and controversy across the local scenes relating to the notion of media culture as popular culture. Despite the much talked about hybridity, it still seems that there are borders that are crossed over only unwillingly. In many places, the traditional artist identity still persists strongly, manifested sometimes even in a 'silo' attitude to remain within the boundaries of 'fine' art.¹⁸ Finland and Denmark seem to be the most 'hybrid' in this sense, if one looks at the actors who combine culture and business either in their forms of enterprise or at the art&design cross-overs performed by individuals.

The 'demo scene' has been especially strong in the Nordic countries which has provided an informal peer-to-peer learning environment for the younger practitioners. By today, the demo scene has been commercialised and several of its 'fame' have found their ways to new media industry where they, together with their designer peers contribute both to business applications and to a rich undergrowth of online and urban sites and communities of cultural production. An internationally known example of these hybrid genres is the *Habbohotel*, which had 0,5 million Finnish and 1,5 million international users registered in 2002.

In the area of popular media culture, computer games seem to represent an especially fruitful terrain of development in the Nordic countries. Several recent productions have been commercially succesful, also internationally – *Eve* in Iceland, *Hitman* in Denmark and *Max Payne* in Finland. There are also strong nodes for games-related research and development, for example at the Interactive Institute's **Zero Games** studio in Visby and Tampere Hypermedia Lab – of which proof is given by recent conferences.¹⁹ Accelerating the networking between games producers, developers and researchers, who also contribute critical approaches to gaming, will very possibly yield interesting results.

Despite the well established 'mobile culture' of the Nordic countries, where sms has contributed to new forms of youth culture, culturally and socially innovative mobile applications still seem to be hard to find. The area is however in progress, and the shift to mobile multimedia and wireless broadband represents an especially interesting area for development²⁰ – where projects integrating the skills of the interaction designers with cultural producers from the art and broadcast sectors should be encouraged.

actors, networks and centres

The national 'scenes' of Nordic media cultures, the different ways in which practices have been articulated on the local level result from a combination of 'micro' and 'macro' actors and their networks. Active individuals – node persons or networkers – are in a key role in these articulations: often the strong areas of practice are built around their 'background' discipline or area of expertise. The centrality of these individuals was evident in the research (see Bjurwill and Ware, Tarkka in this report), as was the usual conflict where lobbying for the field competes with the actor's own professional artistic or research ambitions. Active individuals can act as spokespersons or 'connectors' which are needed to bring the field to public knowledge and to act as 'role models' for the younger practitioners.

The scope of educational programmes is another factor contributing to the local and national differences. New media practitioners may be educated in art academies, in a more design/industrial context or within engineering departments, which all bring about different orientations to the field. Moreover, the degree of inter- or transdisciplinarity in the educational institutes is a contributing factor. For example, one might look at whether the curricula have critical approaches built in them, and whether they are directed at educating creative *users* or creative *developers* of software tools?

For some time, the educational programmes have stressed interdisciplinary and research-oriented skills, but the question remains, where do these multi-skilled practitioners go after studies? Opportunities for continuing competence development as well as for realising innovative productions individually or in the business context are very scarce in all of the Nordic countries.

This is where the importance of the organisations of media culture – media labs and centers – for the sustainable development of the field becomes evident. They support professional practice in several ways – from providing production facilities and support for individuals and companies, through organising seminars and workshops to lobbying for the field in general. Most importantly, the centers and labs provide places for trans-disciplinary collaboration and communication, material nodes for the research, development and production networks. By bringing several people's expertise together they work towards the accumulation of knowledge and skills and form active centers of innovation.²¹

Considering the importance of these organisations, their weak role in the Nordic countries is striking. The exception to the rule is provided by Norway, whose dynamic competence development, networking and online discussions (see Stang Dahl, in this report) are most probably accelerated thanks to the activities taking place in 'real life', face-to-face, in the

Norwegian media labs, which are supported by the PNEK production network – and a long-term structural funding based on a policy that understands the strategic importance of these institutions.

The desperation of actors and the fragmentation of the scene in Iceland and Denmark, the feeling of ‘working on the edge’ and ‘losing opportunities’ is combined with an ‘intense need for a place’ (see Stevn and Olafsdottir in this report): while networks are central to the field, they need physical locations for actualisation. Sweden and Finland seem to occupy a middle position: in these countries there are several smaller media cultural initiatives, but so far their development has been hindered by short-term and project-based support structures.

The poor conditions may even result in a ‘brain drain’ from the Nordic countries to Europe and USA. In Iceland this seems already a reality, paradoxically encouraged by the availability of funds for going abroad, while the local scene remains neglected and undeveloped.

It is thus obvious that despite their general similarities, also the national policies have different approaches to supporting media culture in the Nordic countries. While the policy rhetorics are all based on notions of industry, the articulations and implementations of policy vary from country to country.²² The challenges for policy development are discussed in more detail below; but the need to implement long-term support instead of the current market trend-driven policy and the concurrent ‘patchwork economy’ should be stated already here.

survey results: what the actors said?

The survey realised in the Nordic research project received answers from 144 respondents – artists, designers, researchers and producers representing a spectrum of companies, organisations and projects dealing with cultural production, new media and consultancy. The survey design was made in such a way as to accommodate the whole spectrum of activities and actors – from individual practitioners to companies.

Most of the respondents had an educational background in arts, design or engineering related fields and many of them showed the distinctive crossover from one area to the other: often this trajectory involved also being self-taught in the current profession. The respondents’ average age was a little over 35, which means that they in general have a long experience in working life.

The companies and organisations were generally quite small (2 full-time employees being the most usual size for both) and most of them had been established in mid 1990’s. Thus the companies had survived the dot.com crash; probably thanks to their versatility in operating across the terrains of public and private commission and funding opportunities. However, most of the companies bordered on the line of unprofitability; and many of the associations and cultural initiatives were still based on volunteer work.

What they produce covers the whole spectrum of new media and culture, a cocktail of technical platforms ranging from cd-rom and book publishing to animation and web design; from mobile services to virtual reality or 3d engines, from urban concepts to brand identities. Notably, a lot of the practice is not production oriented: instead of distinct products or art works many respondents were involved in a more research-oriented development of tools, prototypes

and processes, and a more communication-oriented production of events and environments for collaboration and exchange. This processual nature of outputs is a distinctive feature of new media culture, where also the production process is often iterative and involves updates and new versions after the first launch.

When the respondents were asked to evaluate their skills, as expected they gave the best ratings (sufficient to excellent, 3-5 on a scale 1-5) for artistic and communication skills, whereas their management and marketing related skills were rated with considerably more variation, ranging from bad to good (1-4). They were also asked to make a general evaluation of the national support structures of their field (professional and production support and consultancy, internationalisation and information services, funding, further education) and here the results were dismal: most of the respondents considered the structures bad or lacking (1-2), the most visible exceptions being cultural organisations in Norway and more commercially oriented companies in Denmark, which both deemed the structures generally good (4). Many respondents trusted their network of peers and international colleagues for support more than the national programmes.²³

In addition to questions relating to organisation, production, financing and skills briefly summarised above, the respondents were also asked to describe their personal work history / the 'life cycle' of their company or organisation. The questions were designed to find out about the changing conditions of media cultural production and the tactics and trajectories that practitioners have pursued through the landscape. They were asked to:

- *give key reasons or motivations for entering the profession / establishing the organisation*
- *describe the start phase*
- *describe routines and/or growth*
- *describe the changes and how they accommodated to them*
- *give their view of what the future looks like in 2002*

To let the practitioners speak for themselves, the next pages present a sample of their answers to these questions.

motivations?

Among motivations for entering the field, the artistic drive to express and explore new potentialities offered by new media obviously strong. The trajectories leading to new media culture often involve a 'background' in the arts – music, theatre, film, visual art – or design, and the answers reflect this melting-pot quality of new media:

A need for advanced visualisation and interaction.

Wanting to create audiovisual content, tell a story.

Wanting to create high class educational software.

A love for music/sound art that turned into a need to express and communicate artistically.

The establishment of professional structures to realize new kinds of production, and ambitions to reach excellent quality also figured importantly among the motivations:

To create a digital professional place for people with long time experience in commercial arts.

Aiming for excellence in the field, developing virtual communities and having fun with it!

Originally, the idea was to create a graphic design studio with young designers beating the old design companies.

Establishing an infrastructure and environment for artists working with electronic arts.

Besides these more traditional artistic and production-oriented imperatives, a strong need to build environments for communication and collaboration, for participation and reaching new audiences was evident:

The need for an alternative scene - a platform for collaborative work.

Perhaps madness!!! I have found it to be of utmost importance that artists shape the online community and use it to bring down cultural and artistic borders.

The possibility of controlling your own platform.

Interest in interactive and communicative potentials and a wish to reach new audiences.

Research and interdisciplinary work were also considered important:

The opportunity to combine academic interests with an appetite for creative work regarding game design, storytelling and movie-making.

Researching and utilising the possibilities of different media in art and design.

To create a network for people working with technology in different ways (art, science, philosophy etc.).

start phase?

The early phases of activity were seen as being about “idealism, hard work, uncertainty”, For many, the start was characterized by networking:

Getting to know people and places - creating contacts. Creating a newslit.

Fun, making networks, having friends for colleagues, random types of assignments.

The early phases also involved finding strategies and tactics to operate in the field, often realised as two-tier economies combining commissioned and ‘own’ projects, paid work with volunteering:

...learning how to cope with commercial restrictions and still maintain creative potential - never losing sight of the alternative.

Working as a freelance graphic designer to pay for my work as an artist.

In the first years the founders were the only full-time employees but the firm used a large network of freelancers.

The company is working as an ad hoc organisation with various projects and initiatives. Hiring free agents to projects and benefiting from volunteers.

Obviously, entering the field also required learning the new skills as well as countering the constraints of technology by developing new tools:

Very difficult. Used to being behind the scenes and not especially PR minded, I found myself without valid resources to acquire assignments.

...hard - sleeping with the manuals and growing the vocabulary and array of abilities, learning from mistakes!

My vision was also to have it broadcasted on line live. This was virtually impossible when I got the idea but somehow technology moved with my idea and it manifested.

routines or growth?

The phase of becoming established – acquiring routines or perhaps growing – involved continued networking; putting the existing networks to use while expanding them:

Gradually making connections in different directions of the market. This was done by email, phone calls and pure luck.

More and more cooperation between little companies and bigger assignments to be solved.

Efforts at systemizing and developing processes to suit the unstable production contexts were also made during this phase:

Try to put all the experience (and all the mistakes) into a kind of system. Finding formats for the different working papers and “rules” for the script.

Most often we have to develop new processes connecting to the kind of project we are dealing with.

However, these goals of professional development and reaching better practices were met by economic constraints:

But, and that’s important, it was quite easy to get funding for the starting phase but almost impossible to find funding later on.

Instead of growth, the focus has been on holding ship and creating new opportunities by the hard work of current owners.

The routines thus are about learning to be flexible, or even becoming permanently ‘ad hoc’:

Funding struggles, more assignments and invitations than we can handle, conscious about NOT getting too “institutional”. So still small, independent and flexible.

I am mobile, I have a travelling office in my laptop so even when i’m away (exhibiting abroad) i can keep my clients happy by working for them on-line.

changes and accommodating to them?

The field of new media culture changes rapidly, in terms of both technology and its social uses and policies. As some respondents put it, change “...has been a part of the game all the time” and “becomes everyday”. In this environment, the practitioners seem to learn the lessons of hybridity:

We are very adaptable in our structure since the basic idea is to cooperate with others and bring people together. We are not protecting an area or a discipline. We also keep updated as far as technology is concerned.

The work turns increasingly political as external elements are drawn in.

.. I would say that by having to take in projects to make a living I have had to slow down or choose better my own projects. On the other hand I have learned a lot by working with and teaching other people so I would say that it has also had positive effect on my projects/art.

Funding constraints continue:

Sour economy. Staff has gained total control but also made the sacrifices necessary in this kind of environment. Investors are very negative after the .com crazy era.

Stable regional financing.

Unstable local financing.

Unstable state financing.

Adjustments in organisation and focus often need to be done:

We have been hosted by different institutions in the physical world. At the moment we have only a base on the web.

We could see that we had to develop an extra unit, basing our design programmes in our clients' strategies. We had to become a brand agency instead of a graphic design studio.

Left the game-industry in 2001 since things changed within publishing and distribution... Things got more monopolised and there was no way of making money that was equal to the amount of work-hours put into a project...

Getting smaller again and focusing on fewer areas.

future?

Most respondents have a pessimistic view of the future which for them looks "more or less like yesterday". The practitioners' experience fear of a move from funding constraints to complete funding blockages, and speak about increasing difficulties in supporting independent creative production.

If we don't get the money - well, then we don't know what'll happen. Probably everything will take a lot of more time, and some of us have to quit. We don't think we can get national support, so we have create the economy on our own.

On the other hand it's tougher economically, getting into European funding systems for realization of projects. It's harder to "stay independent"

Hard work and scary times. I have to sell myself and my ideas all day long. Keep up the energy by myself. I get my apartment and office paid every month.

Bleek - lack of funding. Many volunteers are giving up and leaving the field.

Terrible - everybody is scared to death after the dot com collapse. Everything turns into mainstream - and the government is the worst possible, doing everything to kill the business. All the good quality firms are collapsing, and the shit survives. So sad to see.

An increased need for competency and process development and for specialization was voiced:

We have to specialize somewhat more.

Movement toward high/low/no tech, sustainable resource interpretations as alternatives to Design Branding.

Shift from production support to projects to support critical discourse in the field.

However, in a field that is not primarily motivated by profits, a strong continued motivation is evident and some respondents even saw the future brighter than the current moment: despite their frustrations relating to the economic situation, the practitioners trust their spirits to keep up. Following Brenda Laurel's definition – in her memoirs of the hardships encountered and endurance required from a cultural worker in the new media industry – we might call these practitioners *utopian entrepreneurs*.

My vision of the future is how art practice can be a integrated part of the society and market structure, helping communication, work relationships, and creating new social tools.

Living with financial and personal insecurity. Since I measure my success by accumulated knowledge and insight, it always looks pretty good.

No idea, depends on my own attitude to this kind of unstable, exhausting work. Hope the spirit keeps!

conclusions – how to support nordic media cultures?

In conclusion, the views and situations of new media cultural practitioners seem very similar in the Nordic countries and present quite a bleak picture of the 'scene'. Moreover it seems that similar experiences are voiced by both the non-profit and the more commercially oriented actors. Individual practitioners (freelancers or artists), cultural organisations and companies, all share a motivation for creative professional practice in an interdisciplinary environment – and are faced with similar problems in economy which in turn leads to difficulties in developing best practices and sustainable structures.

The short-term, project-based and insufficient support schemes are a constantly surfacing topic. The international success stories both in the fields of culture (eg. media art) and industry (eg. games) have, so it seems, taken place not because of, but despite of funding policies; thanks to the industriousness and networking of the actors themselves. This seems a paradox in the age of 'creative industries'.²⁵ Moreover, the funding paradox also relates to the socially and culturally motivated innovation potential of the field. In countries that are frequently defined as both 'welfare societies' and 'laboratories for information technology' one would expect to find a substantially supported sector for social and cultural innovations in applications of technology.²⁶ In furthering these innovations, a market- or venture driven model is not enough; they represent a strategic area that requires long-term prioritising. It seems obvious that the priorities of both national and Nordic policies need to be revised to actively reach for democratic, cultural information societies.

repurposing policies

One reason for the funding ‘mismatch’ experienced so far is that the Nordic policies of new media have been mostly based on a *logic of repurposing*²⁷ – a straightforward idea of cultural ‘contents’ which are digitalised and compressed to be delivered on the new technical platforms. Thus the focus on developing the cultural aspects of information society has been on projects of *digital heritage* and *content production*. The problem with this emphasis is that it largely ignores the roles of the users and the many-faceted process of translation where the contents, technologies and uses of the applications are co-developed. Activities of design, research, or product development are integral to new media production, where the technical platforms and social uses constantly change. However, in the support and funding policies which are based either on traditional media production models or engineering approaches, this aspect is not accounted for. Exemplary models for user- and audience driven development of public service broadcasting and digital archives can be found in the UK, where a new media and design sensibility is brought to guide the process.²⁸

It is of course evident that policy-makers cannot be expected to follow and develop expertise on the quickly changing landscape of media culture; a challenge for making effective policies is also posed by the hybridity of the field, which cuts across the ministry sectors (culture, technology, industry). This is why more dialogic policies for ‘new media governance’²⁹ should be developed in the Nordic countries. This dialogue could involve inter-ministry collaboration in the manner of the Finnish **Content creation project**,³⁰ but also more effective interaction with the media cultural organisations, which could very well act as intermediaries by bringing in up-to-date expertise of the field. On the other hand, an effective dialogue also requires further ‘lobby lessons’ from these organisations, which should develop from production-oriented labs to strategic actors capable of providing information on the field and supporting it also on a more structural level.

When searching for working models for this kind of dialogue, Netherlands provides an exemplary case. With its several small and medium-size (up to appr. 20 employees) centres and media labs, which receive long-term structural funding from national and local bodies, the Dutch scene also includes the **Virtual Platform** network which coordinates the centers’ activities and has been a successful partner in development of national ‘e-culture’ policies and in lobbying within the European government.³¹ The Virtual Platform also organised an important conference - Practice to Policy (P2P) whose results are inscribed in the much-circulated Amsterdam Agenda. The advice of the slogan “Practice to policy” simply points at a reversal in policy practices, recommending that media cultural policy ought to be based on the experience and the good practice already existing in the field.

Instead of putting up large-scale, ‘centralised’ multi-media centres (such as the ZKM in Germany), the Amsterdam Agenda³² also proposes policy support for small and medium-scale centres for interdisciplinary research in new media culture and the networks joining them. As we have seen, in the Nordic countries only Norway comes close to this model. By securing long-term structural funding for new media cultural centers and networks, the national and regional governments will not only support production, research and development activities,

but also breed new policy partners for developing the field further.

The current plan to put up a Nordic multimedia fund is a promising development in supporting the field. In a scenario paper commissioned by the Nordic council of Ministers, Tapio Mäkelä presents two models for putting up the fund, one based on the notion of new media content production, and another based on a wider, also structural support of cultural and social innovation in new media, including its process, networking and research based initiatives. In this model, the funding logic should have “the risk taking ability of the venture capitalist... while the selection criteria should be based on the cultural and social information society policy.”³³

Based on the views provided by the Nordic research project, the latter model certainly looks more eligible. The hybrid, processual and multi-faceted innovations of new media culture call for new kinds of support systems which acknowledge the field's practices and its strategic importance in fostering the cultural, democratic qualities of welfare information societies. Besides the creation of new products and markets, an innovative funding scheme would, in the long term, bring about a shift from repurposed media to completely new Nordic media industries.³⁴

notes

¹ I especially wish to thank the research project's coordinator Miriam Martevö for the insights brought back from the visits, our Nordic research partners at CRAC, CultureNet Denmark, PNEK and Lorna – and all the people who went through the effort of answering the survey questionnaire. I also wish to thank Tapio Mäkelä for exchanges relating to our co-editing two former studies of the field and the group of researchers who participated in the Finnish study (Tarkka and Mäkelä 2002, Mäkelä and Tarkka 2002).

² The diversity is also felt in the articles of this report. Realised within the same research framework and guidelines they however have quite distinct approaches and reflect differences in the national 'scenes'.

³ The localisation and 'clustering' of new media culture has been researched by Pratt (2000).

⁴ For example the 1999 survey on working practices in electronic arts by Rosalind Gill and Diane Dodd used this notion; the importance of context over content was strongly voiced also by the respondents in the Finnish study of 2002.

⁵ In some contexts, the hybridisation between art, science and technology has been addressed through the notion of an emerging 'Third Culture' which fuses the cultures of technique and the humanities. See, for example, Ehn's (1999) *Manifesto for a Digital Bauhaus*.

⁶ See Michael Century 1999.

⁷ Aarseth 1997.

⁸ For an overview of activist new media practices, see for example the *Net.congestion* catalogue (Lovink 2000); on the digital public domain, see Kluftenberg 1999.

⁹ Cf. du Gay and Pryke 2002.

¹⁰ Cf. Tarkka 2002.

¹¹ McRobbie, Angela (2002); see also Himanen (2001).

¹² Cf. Reuter, Jochen & al 2001 and the 'Cultural worker, who are you' papers in the Cultural Competence proceedings (Ellmeier and Ratzenböck 1998).

¹³ Eg. Gill and Dodd (2000) noticed the resistance to use the job title of 'artist'; also the Nordic research found ambiguities in professional self-definition. The problem of categorising new media extends from practitioners to statistics, where the field is located between the IT and cultural sectors.

¹⁴ See, for example the collection of articles in Boyd, Brickwood & al. 1999.

¹⁵ For example in the Netherlands, the tradition of 'tactical media' is closely linked to the squatter's

movement, where a street-level politics was linked to the development of alternative media channels and campaigns (cf. interview with Geert Lovink, Tarkka 2001). Interesting examples of local broadband activism can however be found in Norway's community-driven networks, as described by Boman (2003).

¹⁶ See, eg. Ehn 1992.

¹⁷ For example at BEK in Bergen, Linuxlab at Copenhagen IT University and the Digital Economy research unit at Helsinki Institute for Information Technology (HIIT).

¹⁸ Following Bourdieu (1993), the contradiction could be seen as one between the fields of 'restricted production' and 'large-scale production'; the question is not only about economy but also about the scope of intended audiences.

¹⁹ The Games Design and Digital Cultures conference 2002 also led to the formation of DIGRA, International association for the games research DiGRa, based in Tampere.

²⁰ Focusing on this field is also recommended by Tapio Mäkelä in his scenario (2002b) for the Nordic multimedia fund.

²¹ Michael Century (1999) has researched the innovative environments provided by a variety of 'studio labs' in art and technology. Another study on the centers and their roles as national and international incubators has been performed by Mediacult (1999).

²² Sweden's 'experience industry', Finland's 'content creation' and Denmark's 'interactive culture industry', and the emphasis on 'E-art' in Norway.

²³ Also the research on practitioners in 6 European countries (Gill and Dodd 2000) showed the centrality of informal sources for learning and support.

²⁴ Laurel 2001.

²⁵ Despite the dot-com crash, the growth of the market for culture and content hasn't disappeared; the economic conjectures of the field call for stabilising actions from public policy.

²⁶ In their report on the welfare information society - The 'Finnish model' - Castells and Himanen (2002) point out the need for social innovations besides social policies and technical innovations.

²⁷ Cf. Laurel 2001.

²⁸ For example in the BBC, user-centred design methods are brought to resonate with programme production (Boyd 2003); also in digital museum and archive projects, target group specific, interactive applications are encouraged by the re:source fund (see Mäkelä 2002).

²⁹ Cf. Pratt's notes on 'cultural governance' (1999) and the white paper on European governance (COM 2001)

³⁰ See the essay on Finnish media culture in this report.

³¹ Brickwood 1999, 2002.

³² Practice to Policy, in Boyd, Brickwood & al. 1999.

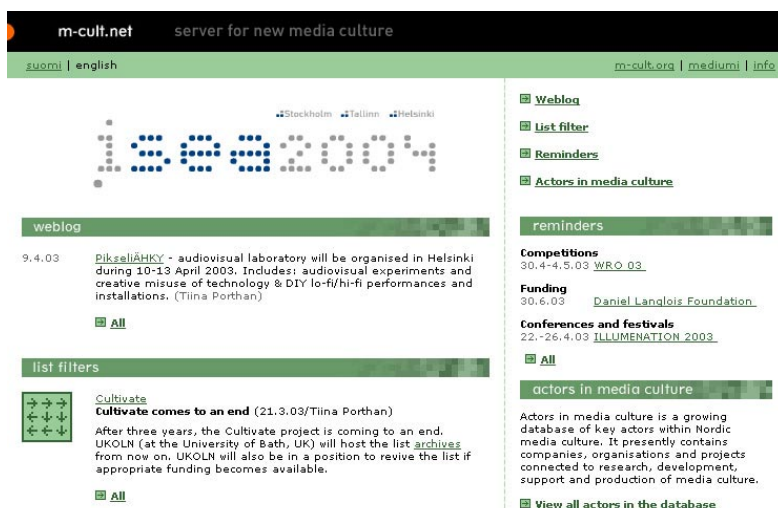
³³ Mäkelä 2002.

³⁴ Laurel (2001) underlines the necessity to 'incubate' new industries and not only new (often repurposed) products; see also Century's (1999) analysis of the modes of innovation carried out in the studio laboratories of media culture.

nordic project presentations

m-cult.net – online server for new media culture

m-cult.net is an online information and communication service for Nordic new media culture, hosted by m-cult, centre for new media culture in Finland. m-cult.net aims to increase collaboration and information-exchange between the Nordic countries, and at enhancing the Nordic practitioners' visibility and mobility through accelerating exchanges and disseminating information of the hybrid and international field of media culture. The service was launched in Finnish in 2002 and in English in January 2003 and it contains a database of actors (over 200 organisations, institutions and projects), a reminder service (festival, conference, competition and funding deadlines), a weblog and list filter which offer updates and news from practice and policy developments in new media culture, as well as web journal *mediumi* (2 English-language issues a year). The service is being further developed in Nordic collaboration to include also presentations of individual practitioners and their projects and productions.



project name: m-cult.net

what: online database and communication

platform for new media culture

where: <http://www.m-cult.net>

when: 2002-

initiator: m-cult

funding: ministry of education/content

creation project, nordic council of

ministers

new media air - residency program in new media art

New Media Air is a Nordic-Baltic residency programme coordinated by NIFCA, the Nordic Institute of Contemporary Art. The programme's specific emphasis is on new presentation forms and tools of media arts, such as 1. Software art and software tools for artists; 2. Sound/audiovisual performances and installations - new media art that manifests itself as a performance / event / installation and extends beyond the screen. Artists from the Nordic region (Denmark, Finland, Iceland, Norway and Sweden) and from Estonia, Latvia and Russia are eligible to apply for all the residencies. Artists from the residency exchange countries (Canada, Great Britain, Portugal) can apply only for the residencies in Nordic/Baltic region.

project name: new media air
 what: nordic-baltic residency programme
 where: several residencies in nordic and baltic countries, canada, uk, portugal
 when: 2003
 initiator: nifca, in collaboration with olento
 funding: nifca
 url: <http://www.nifca.org>



nifca's residencies extend also beyond the nordic countries

prix möbius nordica – interactive multimedia competition

Organised for the first time in 2003, Prix Möbius Nordica is the Nordic competition for interactive media culture – online/offline multimedia, web or digital tv concepts, etc. Prix Möbius promotes creativity and innovation especially in the field of interactivity, combined with high standard quality in aesthetic and technical realisation, as well as scientific validity and educational interest. The competition categories are Science and communication, Educational and children, Culture and art as well as Creation and Fiction. The Prix Möbius Nordica 2003 winners – *Kharon4a* (org.dot), *Hubu* (Sulake), *Rölli ja metsänhenki* (Sveng.com/PanVision), and *Animaatiokone* will participate in the Prix Möbius International 2003 in Athens, September 2003.



prix möbius nordica's prix science winner in 2003 was orgdot's kharon a4

project name: prix möbius nordica
 what: nordic multimedia competition
 where: helsinki
 when: 2003-
 initiator: medeia ltd., in collaboration with lume media centre and m-cult
 funding: nordic cultural fund, avek, ministry of education and others
 url: <http://www.prixmobiustnordica.org>

re-approaching new media (ram) – series of workshops

Re-approaching new media (RAM) is a Nordic-Baltic collaboration between the new media art organisations (Stockholm), (Helsinki), (Tallinn), Vilma (Vilnius), (Riga) and (Oslo). RAM is a series of 6 international and interdisciplinary workshops. These workshops focus on issues such as multiple authorship and collective intelligence, interaction processes between virtual and physical space, new applications for the web, aesthetics, narration and social interaction in computer games and new utopias. The aim of RAM is to create an international network of professional artists, technicians, designers, media activists with an array of skills in new technology, to provoke a productive and critical dialogue and an exchange between different artistic cultures using new media as tools in their art practice, but also to encourage the creation of new tools and forms of expression/communication.

ram workshop in oslo photo by: jonah brucker-cohen



project name: ram – re-approaching new media
 what: series of nordic-baltic interdisciplinary workshops
 when: 2002-2003
 where: stockholm, oslo, helsinki, tallinn, vilnius, riga
 initiators: crac (coord.), atelier nord (oslo), olento, e-media center, vilma, rixc
 funding: eu culture 2000, daniel langlois foundation
 url: <http://www.anart.no>

key findings and proposals for the nordic countries

findings

The practices of new media culture are hybrid and cut across the sectors of culture, media, science and technology. New media culture is performed in a variety of contexts – in art and design studios as well as universities and technology research institutes, within local communities as well as within commercial and industrial milieus.

The actors, both from the more artistic and the more industrial orientation share similar ambitions for professional production in an independent and interdisciplinary framework, driven by efforts to develop creative and quality applications of technology for a multitude of productive and social uses.

The actors have experienced severe economic constraints which makes it difficult or impossible to develop innovative projects or the competences required in a constantly changing field. The overall findings suggest that national and regional policies are geared towards pilots and initial support but not towards sustainable development of the field. Furthermore, the changing market climates make the field of creative production extremely vulnerable.

Best practices and internationally acclaimed areas of Nordic new media culture are represented, for example, by human-centred and participatory design, games research and development and new media art. Further development and support seems to be needed in the development of creative applications for mobile and location based, broadband and digital television platforms as well as for socially participatory and inclusive information and software tools.

Despite similarities in individual practices, there is considerable variety in the ways how new media culture has been articulated and implemented in the local and national contexts in the Nordic countries.

Nordic policies have not yet in full recognised the innovative contribution of new media culture. The policies for digital heritage and content production have been based on a logic of ‘repurposing’ and digitalisation of existing media, thus neglecting the interactive potentials of new media and the need for user and audience –driven development.

New educational programmes offered for new media have been an area of strong investment in the Nordic countries. Their focus, scope and innovativeness however varies a lot and has not yet been assessed. Clear deficits can be seen in how the support for young professionals and the continuing development of competences has been organised.

Active and mobile individuals play a central part in PR; networking and making interdisciplinary connections within the field of new media culture. However their knowledge and contacts are not necessarily turned into an asset for the field at large. From a Nordic perspective, the mobility of actors may also involve a threat of a ‘brain drain’ when these active people move permanently abroad as is the case in Iceland.

Good models for strategic networking are provided by Sweden's Interactive Institute, Norway's PNEK and the Nordic Interactive research framework. New media culture is also typified by more temporary and 'tactical' formations such as virtual communities, mailing lists based on shared interest in culture, technology or design.

In order to consolidate and sustain the individual contributions and the networking activities, physical meeting places are needed. Independent media labs and centers have proved to function as key actors in national, international and local innovation environments, where they provide opportunities for interdisciplinary research and production and contribute to policy development. Their weak development in the Nordic countries – with the exception of Norway – is striking.

International partnerships and contacts are more usual than inter-Nordic networking. One reason for this is the lack of institutions that could act as nodes for these connections, another can be found in the lack of information on the actors.

proposals

National policies in the Nordic countries should recognise the importance of new media culture in creating not only innovative projects and products, but also in its more strategic potential in supporting cultural and social welfare in information society, and in creating innovations which bring about new markets and forms of industry.

The recognition should be actualised in significant, long-term funding schemes for the field, as well as new funding instruments directed at furthering practice in the individual level as well as in the organisations – independent associations, companies and research institutes – active in the field.

In establishing these schemes, among them the Nordic multimedia fund, the hybridity of the field's practices and contexts should be taken into account. The fund should support not only productions and product development but a wider spectrum of media cultural actors, structures and activities, including networking.

In the context of the planned fund, a Nordic "practice to policy" conference should be organised to accelerate the dialogue between Nordic media cultural organisations and policy-makers and to develop innovative policy frameworks to support best practices in Nordic new media culture.

The strong areas in Nordic new media culture, such as participatory design, computer games and media art should be further supported. New collaboration networks and support schemes should be launched to further social and cultural innovations in software, mobile, broadband and digital television development.

Small and medium-sized centers and media labs should be established and supported in all Nordic countries. A network for Nordic media culture should be created to strengthen production and information exchanges between the countries and organisations.

A Nordic assessment of education and research related to new media culture should be performed. The study could develop ways to assess the relations of inter- or transdisciplinarity, critical and constructive discourse and innovativeness and produce proposals for the advancement of the education and research sector.

Professional competence development in new media should be secured by developing new programmes to be carried out by educational institutions and independent centers dealing with new media culture. The development of the programmes could involve a pre-study related to the assessment of education proposed above.

II reports on media culture in the nordic countries

ianne stang dahl, norway: networking nodes

introduction

“Hybrid” and “multi-disciplinary” are primary characteristics of media culture, a field that resists any precise definition in terms of boundaries. This ambiguity is extremely challenging and raises questions that demand constant cross-disciplinary orientation and navigation between technology, art, research and new forms of conveying information. Cross-disciplinary practices work with technology on different and varying levels, and while “electronic media” attempts to provide a common term for such work, the actual output is so diverse that it resists the suggested homogeneity of its collective label. Diverse forms of production and presentation are, on the one hand distinctive and specialized, and on the other, both diverse and differentiated. The significance of this is reflected in the need for constant changes in production conditions regarding both technical and organizational issues, and content. Especially in the field of art the use of technology is something that practitioners now take for granted in their everyday work.

An increasing number of people use varying degrees of technology in their work. At the same time art education in Norway has experienced a lift through funding targeted towards the establishment and development of media departments at the National Academies of Fine Art in Oslo, Bergen and Trondheim. This has resulted in a multitude of practitioners, and in 2002 there are many newly educated artists with both competence and experience in the use of technology in their art making process. This leads not only to an increased and more advanced use of technology, but also to the need for an improved system for economic support in this field.

The general impression of the state of electronic art in Norway described in this report has been formed primarily through actors engaged in the production of art, namely organizations and independent artists and artist collectives. The actors in the field of art are a group that, possibly more than any other, constantly seek to orient themselves around cross-disciplinary practices. This tendency is also reflected in art in general, where practitioners operated in interdisciplinary spheres with an emphasis on project-based work that examines, amongst other things, social and cultural aspects of technological development, and expresses a consciousness and discourse surrounding issues of technology, culture – and society.

The survey developed for the Nordic research to investigate the current status of this field was, in Norway, co-ordinated by PNEK, Production Network for Electronic Art.¹ PNEK is supported by the Norwegian Council for Cultural Affairs and has a time-span of four years. PNEK’s assignment is to act as an accumulative resource for technique, competence and knowledge that shall assist in the building up and development of the environment for electronic art in Norway via assisting in production aspects of art projects and strengthening the contact between the current network of practitioners.

This report is based first and foremost on experiences from the field of electronic art. The intention of this report is to give an impression of the breadth of this field by presenting its historical development, production conditions and current status. Finally, suggestions for future strategies and priority areas will be presented.

brief historical overview

background, production and exhibition

Norway has a background in electronic-based art production that stretches back to the 1960's. At this time the interest surrounding the potential of evolving technologies resulted in hybrid art projects that were especially prevalent in the avant-garde scene: performance, experimental theatre, and sound collages struggled towards new modes of expressions where juxtapositions were used as a resource to move beyond the traditional, bourgeois art scene. In this period there was no distinctive Norwegian art scene to speak of, rather an international milieu in which some Norwegian practitioners took part.

In 1968 the Henie-Onstad Art Center was founded, and the director at that time, Ole Henrik Moe, swiftly set in motion the process of building up a studio where artists primarily working with electronic media made their mark. The Norwegian composer and sound pioneer, Arne Nordheim, produced a wide range of his work here, and the studio was in a constant state of re-design and expansion. The Henie-Onstad Art Center also developed connections to the French sound center IRCAM. Throughout the seventies the studio gained an international reputation for being one of the best of its kind.

Following closely on the heels of the earlier experiments of the sixties, the production of independent video art in Norway was underway around 1970. However, in this period video art production was sporadic, the number of artists working with this medium was marginal, and access to technical equipment was more or less non-existent. In 1975 the Annual Autumn Exhibition accepted a work of video art, and this exhibition marked one of the first public showings of video art in Norway. The first infusions of this medium within education occurred at about the same time at the National Academy of Fine Art in Oslo. One of the first studios/workshops with video art production and research on its agenda was established in the early eighties at *Mediekultur* (Media Culture), a collaborative network between university, high school, and art milieus. Research into telematic performance was conducted via projects that experimented with the simultaneous transmission of sound and image from several locations. *Kunstnernes Medieverksted* (Artists Media Workshop) at the Henie-Onstad Art Center was in operation during the late eighties. The museum organized several exhibitions where technology was a main ingredient of project curation. Kjell Bjørgengen, one of the pioneers of video art in Norway, presented, amongst others, the dual-channel video installation "Installation 1984". In 1987 *Norsk Videogramforeningen* (the Norwegian Society of Video Makers) organized *Videokunsthifestivalen* (Video Art Festival) in Trondheim, where artists such as Bjørgengen, Kristin Bergaust, Marianne Heske and Ivar Smestad presented their work. The national *Kortfilmfestivalen* (Norwegian Short Film Festival) has also presented video art since the mid 1980's, including the work of Rolf Aamot. Individuals and small groups working with video and performance also made their mark. Pia Myrvhold and Randy Naylor, for example, were very active in this field, drawing their inspiration from the New York scene.

pre – 95

“The history of video art, particularly from the early seventies until the mid nineties, is also the history of workshops, co-operatives, pressure groups and activist organizations whose aim was to provide access to the means of electronic communication and to propose an alternative to the dominant forms of communication and culture practiced by broadcasting corporations and mainstream art institutions.”²

The term “the new scene” has been used to describe the emergence of media projects and productions initiated by young artists in the nineties. The self-organization of venues, workshops and individual events revealed a new attitude towards contemporary times. The projects did not constitute a singular line of direction, neither were they aimed towards a target audience. These projects were temporal in nature and often existed only through direct contact with the public. These cross-disciplinary collaborations represented a break-out from the Modernist view of art, and the artists in question felt as much affinity to pop culture, technology and social issues as they did to established art institutions.³ The tendency towards international exchange was expanding in accordance with the increased use of technology in art production. Gallery F15 in Moss organized a large exhibition featuring Norwegian video art, including several installations by Marianne Heske.

Within the private sector, the growing interest for new media caused a flurry of activity. Telenor, Norway’s leading tele-communications concern and one of the largest companies registered on the Oslo stock market, established the *Avdeling for anvendt medieteknologi* (Department of Applied Media Technology) in 1993. This department worked on the development of virtual environments, the application of 3D visualization and product development. Telenor provides us with one of the few examples where artists are actively involved in the development of new media on an industrial level. In this scenario the background and experiences of visual artists are used as a resource in the development and production of products aimed at a commercial market. This project triggered heated critical discussions (that still exist today) where artists pointed out that the commercial sector had too great an influence in defining the new media scene.

Organizations and networks also became established. **Atelier Nord**, which originally started out as a workshop for metal print in 1965, added to a new media orientation in 1993. This same year the workshop received funding from The Norwegian Council for Cultural Affairs to invest in a data- and video department in addition to the existing graphical department. Atelier Nord also became a permanent post in the national budget with regards to the funding of general management expenses. In the mid nineties Atelier Nord was the only freely-available production center in Norway for visual artists working with new electronic media, and in 1994 became the first organization within the Norwegian art scene with a presence on the Internet. Things were also moving fast on the audio front, where new organizational activities were taking place. The sound studio at the Henie-Onstad Art Center was no longer available to sound artists, and users from the creative and scientific music milieu took the initiative of starting a network of nodes, where **NoTAM** (the Norwegian Network for Technology, Acoustic

and Music) was established as the central node in 1993. NoTAM worked within the field of music, research, educational studies and information distribution. Users were offered free access to NoTAM's resources to work with electronic sound. From an organizational perspective, NoTAM was situated within the Historical-Philosophical faculty of Oslo University.

The **National Academy of Fine Art in Trondheim** was the first educational institution to make a direct connection between technology and education. In 1990 the Academy was awarded money to establish the Intermedia department, with Jeremy Welsh as senior scientific officer. This department was the first to offer art education within the field of new media. Through an open attitude, the borders previously separating the various departments of the academy became more fluid, while students were also given access to computer, video and light equipment. The **National Academy of Fine Art in Bergen** also started the process towards investing in this field, notably through the establishment of the Department of Photography in 1992. This section was not directly connected to the field of electronic art, but was never the less one of the first institutions in Scandinavia to make digital photography and manipulation a prime concern.

A growing number of potential artists looked abroad for education possibilities. At KHM in Cologne, the former art student Ståhle Stensli collaborated with Kirk Woolford on the project *Cyber – SM*. This project, a tele-tactile communications system with explicit sexual connotations, gained much international attention and exemplified the term “cyber sex”.

1995: electronic art as a genre

The second half of the nineties saw the emergence of a dense undergrowth of individuals and independent projects surviving on a combination of project-based funding and their own resources. Art projects such as **Motherboard**, T.U.G. and 01-norsk kunstrom were established. Around 1994/95 the Internet became accessible to practitioners working outside of university and research milieus. “Internet”, “cyberspace”, “new economy”, “virtual reality”, etc were new terms that infiltrated the ongoing discussions surrounding the general development of society as well as the realms of academia, especially with regards to theoreticians from philosophical and social science spheres. The art scene was particularly active in this discourse. “Network” became a significant buzzword. Kunstneres Hus (The Artists House) added for example the interactive netart work *SYS* by Kristin Bergaust and Kenneth Langås at the exhibition “Høstutstillingen” in 1995. The music scene was quick to utilize the Internet as an element in live performance. One of the earliest examples of such a practice is the project *Nood* by Per Platou and Ulf Knudsen. *Nood* held live concerts via the Internet, jamming with like-minded musicians spread over several continents.

By this time, larger institutions were developing a particular interest in electronic art, and in 1996 The Henie-Onstad Art Center produced *Electra*, the first large-scale international electronic art festival in Scandinavia. This exhibition was geared towards showing “all”, and in retrospect, this time was dominated by an overwhelming feeling of “techno- euphoria”. *Electra* presented works and seminars that focused on technology in relation to art, discourse, industry and commercialization. Ståle Stensli, Knut Mork, Kate Pendry and Marius Watz

were responsible for the largest Norwegian contribution with the electronic installation *sense: less*. Amanda Steggell collaborated with Nood to produce the network performance *M@ggie's Love Bytes*, a project considered as a pioneering work of that time. The following year the National Academy of Fine Art in Trondheim by Jeremy Welsh and Espen Gangvik arranged the international festival *Screens* in co-operation with the Trondheim Museum of Art. *Screens* traversed artistic and scientific ideas and emphasized the potential of new technology as a creative factor based on the aesthetics of computer monitors and video screens. This event drew focus upon the developing trends in contemporary visual art and several Norwegian artists took part. The same year Kunstnerens Hus (the Artists House) in Oslo arranged the exhibition *e ~ on*, and several of the participants from Electra were actively involved. This exhibition was the artistic manifestation of the renowned international conference, *Cyberconf6* which also took place in Oslo. Morten Sørby, now project leader at ITO, the Research and Computer Network for IT, acted as both conference initiator and host. Morten Sørby had for many years been engaged in research activities relating to “cyberspace” and “future society”. In 1996 he co-authored the book *Kulturens digitale felt* (The Digital Field of Culture) with Terje Rasmussen, which has become an important literary reference for research in this area⁴.

In collaboration with artist and curator Ståhle Stensli, Riksutstillinger sat high stakes on the touring exhibition *Detox* in 1999. Knut Mork, Kristin Bergaust, Atle Barclay and Thomas Kvam were some of the artists to present projects at *Detox*. Gallery F15 was one of the first established art organizations with projects that related directly to the Internet on their agenda, and throughout 2000 the project room at Gallery F15 presented a series of net.art projects.

a cross-disciplinary meeting place

The art café Zoolounge opened in Oslo in 1997, and functioned as a meeting place for the young, hybrid art scene, gathering artists from all genres. In addition to being an agora for this field, each month new conceptual exhibitions were curated by Christel Sverre and Svein Flygari. They both had backgrounds from “the young art scene” in the early nineties through galleries such as Struts and Herslebsgate in Oslo, and Otto Plonk in Bergen. Artists presented projects within the social framework of the café. Amongst these artists were Motherboard, Gisle Frøysland and Ingwill Gjelsvik with her project *T.U.G* (the undercover girl).

In addition to these exhibitions and project presentations, the last five years of the nineties represented a strong tendency towards arranging cross-disciplinary activities in the form of seminars, worklabs, lectures and text forums where diverse critical discussions took place, more or less constantly. The voice of E-art resonated in many arenas such as academia, media art, performance art, literature, the music scene, etc.

artist-run media centers

At the end of the nineties a simultaneous movement towards establishing artist-run media centers began to take form. In 1998 Atelier Nord's graphic department was shut down, and the workshop concentrated exclusively on new media activities. From the position of being a marginal work place for the few especially interested, Atelier Nord, with Kristin Bergaust as

Director, became an important resource for a much broader sphere of the art scene. Atelier Nord was interested in expanding its horizons beyond the borders of Norway, and became (and still is) actively involved in various border-crossing organizational networks. The project Oslo Precence –a web event and workshop, was one of the first workshops in Norway focusing on net.art. Today Atelier Nord thrives as a cross-disciplinary, well-equipped studio for electronically based visual art. This work place is driven by and for artists, and runs on the principle that artists should be given the opportunity develop their work both technically and artistically in an internationally oriented atmosphere. Atelier Nord also rents out equipment at relatively low costs. It takes part in cross-disciplinary networked collaborations with other Norwegian workshops: NoTAM, Bergen Center for Electronic Art (BEK), and Trondheim Electronic Art Center (TEKS). All these centers are a part of the PNEK (see below) production network. It is also worth noting that Atelier Nord has also established an e-mail list called *e-kunst* (e-art), a thematic forum for people that specifically work with art and evolving technology. Atle Barclay is currently employed as the leader of Atelier Nord, and many of the employees work with a combination of administrative roles and their own art projects.

NoTAM received annual funding for general management expenses from the Department of Culture in 1993. NoTAM is a production center for creative sound work. NoTAM works with research and the further development of theoretical and practical knowledge surrounding the use of technology within composition, production, education, and distributing information about these activities. In addition to state funding, activities such as concerts and lectures, commissions, research and development, are financed through project support from various funds in Norway and abroad. Important collaborative partners from Norwegian academia include The National Academy of Music, the Institute of Music and Theater, the Institute of Information and USIT (the University Center for Information Technology) at UiO (the University of Oslo), as well as the Acoustic Group at Norway's Technical and Natural Science University in Trondheim. The composer Joran Rudi has led NoTAM through the past ten years.

In 1999 NoTAM were collaborative partners in the founding of **Kunstnett Norge** (Art Net Norway). Kunstnett Norge aimed to create an Internet-based, bird's eye view of the total breadth of artistic activities in Norway, as well as operating as a counseling body for actors within the field of art and IT. Kunstnett Norge is a part of Det norske Kulturnett (the Norwegian Culture Net) which came into being as a consequence of, amongst other things, a report developed by the Department of Culture.⁵ The project was structured as a Norwegian cultural net in four sections consisting of an archive, a library, an art section and a museum section. Kunstnett Norge consists of an independent editorial board and a committee, and shares technical and administrative resources with NoTAM. Like NoTAM, Kunstnett Norge is connected to UiO (the University of Oslo). Kunstnett aims to offer access to a comprehensive view of art resources accessible via the Internet. This service is targeted towards both actors in the artistic sphere, and others searching for specific information on art. Kunstnett also offers advice and support during various stages of project development, with regards to technical support, financial help (to some degree) and support in launching projects. In the section dedicated to multimedia, both non-commercial web design and computer gaming are featured.

Artists from all genres can submit information about themselves in the artist register. The main aim is to allow artists to make themselves visible and to improve the contact surface between artist and public - and between artist and artist. Kunstnett Norge has its own "Gallery" for art that is made specifically for presentation on the Internet. In addition, texts that focus on the relationship between art and technology are made available. They have also initiated an e-mail list called *110*, targeted at the whole spectrum of art life in Norway. Due to a budget cut from the Department of Culture, many services, functions and projects will be terminated from 2003, and from this point on Kunstnett Norge falls under the administration of ABM (Archive, conservation, museum).

The background for establishing new organizational structures and networks stems from, amongst others, a new structuring that was tested and established by the Norwegian Council for Cultural Affairs. In 1997 a working group selected by the Norwegian Council for Cultural Affairs was given the assignment of developing new strategies and guidelines for assessment in order to improve production conditions for electronic art. When the report *Sjønneten og utstyret* (Beauty and the technology beast) was complete in 1999, the message was crystal clear: a production network should be established that included both Trondheim and Bergen as central nodes.⁶

BEK (Bergen Center for Electronic Art) was officially established in May 2000, with the intention of promoting electronic art in all art genres. In practical terms, BEK adopts a diversity of approaches and activities to try to achieve this aim, including art production, service provision, research and development, information distribution and educational activities. BEK has initiated several projects within these fields, and established a wide network of collaborating organizations and institutions. Throughout the duration of BEK's existence, it is BEK's work with real-time media processing that has drawn attention to the competence level of several of its employees. BEK's competence is utilized with regards to both the digital manipulation and treatment of both audio and visual media, and this in turn has created an interesting cross-disciplinary milieu. BEK's policy is to employ artists who are actively engaged in art production, and it is not unusual for these in-house artists to realize their projects through BEK. These are the most technically challenging, ambitious and competence-building projects to be realized. Trond Lossius, Ellen Røed and Gisle Frøysland are all artists directly connected to BEK.

TEKS (Trondheim Electronic Art Center) was founded in 2002, and is structured as an idealistic foundation with the intention of promoting electronic art in all art genres in Trondheim and the surrounding area. TEKS initiates and produces internal and external artistic productions and projects, and is also involved in spreading information about technique and competence. TEKS is both a production workshop and production company for electronic art. TEKS' approach is to map out and co-ordinate existing local resources and competence so that projects may be realized in co-operation with relevant companies and institutions, in addition to the individual artist projects carried out at the TEKS workshop. Visual artist Espen Gangvik is the current director of TEKS.

PNEK (Production Network for Electronic Art) was founded in 2000 based on the outcome of the report *Sjønneten og Utstyret*. PNEK is financed by the Norwegian Council for Cultural

Affairs, and is a temporary project with a time span of four years. PNEK has its own committee and has one permanent employee who functions as project coordinator based on an 80% position. PNEK was initiated because of the need for a network geared towards providing appropriate production conditions for artists working with electronic art. PNEK therefore works with production development, competence raising, and raising the awareness about electronic art by providing information about this field. The segmented conditions for cross-disciplinary practices, for example audio-visual collaborations, suggested a growing need for an apparatus that could co-ordinate a cross-disciplinary collaboration where artists from different genres had the possibility of reaping the benefits of each others experiences, and become influenced by each other in their work process. PNEK's network is built around four nodes: Atelier Nord, NoTAM, TEKS and BEK, and works on the basis of providing greater degrees of effectiveness and coordination that traverses both geographical and disciplinary borders. The main aim of PNEK is to build up a network where the basic elements for the production of electronic art are able to circulate between the four nodes: competence, software, hardware, etc. PNEK can be considered as a potential *effectivity machine* programmed to ensure that both financial investments and technical and human resources are utilized for the maximum and mutual benefit of each of the individual nodes by circulating resources and arranging exchanges. PNEK also aims to be flexible, and is therefore available to assist individual artists and artist groups in their own productions and projects.

The establishing of new models of production around the turn of the western millennium revealed a need and a will to create a collective arena for the production of electronic art. However, it is very important to emphasize that these media centers are not the only actors in this arena.

The artist group Motherboard has, since 1995, been active in this field producing performances, live art events and installations that traverse established art genres, but with a strong anchor in e-art. Per Platou and Amanda Steggell form the core of this group. They collaborate with other artists from Norway and abroad in accordance with the needs of specific projects, and their economical situation. Over the last years Motherboard has also organized worklabs such as *Hot Wired Live Art* (Bergen 2000, and BANFF/Canada 2001), and the Glitch symposium and festival in Oslo in 2002.

The expansion of the field of electronic art has generated a growing interest and need for specialized electronic art centers where artists and artist groups have access to collective resources, including equipment. **IoLAB** is an example of a project working towards the establishing of such a center in Rogaland. In the immediate future, the most pressing task for ioLAB will be to lay the roots for a dialogue between artist working with electronic art and related art fields within the region. The main aim of ioLAB is to provide facilities for exhibiting electronic art and to create a professional and social meeting place, as well as providing both technical facilities and workspace for production purposes.

Other independent artists who have actively contributed to this scene over the last years are Ståle Stensli (tactile installations) Hans Christian Gilje (video/performance) Kristin Bergaust (video/innstallations) Marius Watz (java, 3d), Ballongmagasinet and pilota.fm (sound art on the Internet), Thomas Kvam and Frode Oldereid (large scale machine/robot installations)

Noemata.net (collage/surrealism/net.art), Jørgen Larsson (sound/conceptualism), and Sol Sneltvedt (video/installations). Several independent theater groups have also experimented with the possibilities of integrating electronic media, including real time digital manipulation of human gesture, in theater/dance/performance situations. These groups include Force Majeure, BAK-Truppen, Verdensteater, De Utvalgte and Mobile Homes.

funding

The interest for technology in the field of art is constantly on the rise, and is reflected in the growing number of grant applications received by general funding bodies. The production of electronic art is mainly supported via public funds in the form of project support administered by the Norwegian Council for Cultural Affairs. From 1998 the Norwegian Council for Cultural Affairs administered NOK three million per year to the category of Art and New Technology (KNYT). A new support area has recently been defined that provides equipment funding for independent workspaces that are run collectively under the leadership of a general manager who is responsible for providing continuity. The resources that are allocated to KNYT are not drawn from an individual fund, but are a part of the Fund for Norwegian Culture that covers every area that falls under the responsibility of the Norwegian Council for Cultural Affairs. This fund allocates resources for the different disciplines. Resources allocated to art and new technology fall under the jurisdiction of the visual arts section, where a cross-disciplinary committee assesses applications, and awards funding to projects that move beyond the genre of visual arts alone. There are also resources ear-marked for performing arts and new technology (around NOK 800 000). However, applications for this funding are handled by the performing arts committee, rather than by a specialized committee.

KNYT has played a significant role in the development of the electronic art field in Norway. From an aesthetic point of view, one can question whether the Norwegian Council for Cultural Affairs has been clear enough in defining exactly what type of projects should be supported via KNYT, and it is apparent that many people who have applied for funding via KNYT wish for a greater transparency with regards to how, and to what, these funds are allocated. There is a general feeling of uncertainty amongst artists and producers as to what projects can apply for funding, and how these are defined within the framework of the Norwegian Council for Cultural Affairs. However, this just goes to show that the area of art and technology is in development and on the move, and that it may just be inappropriate to try and define certain projects by labeling and categorization. On both sides of the fence – the fund-givers on the one side, the fund seekers on the other - there is a strong will to discuss and debate issues of genre definition, evidence of which can be found in seminars, articles and email lists.

The financing of projects that fall within the field of electronic art has mainly been defined as project support handed out by the Norwegian Council for Cultural Affairs, and funding from other bodies such as Billedkunstnernes Vederlagsfond, Kunstnett and Fond for Lyd og Bilde, as well as project support for international projects from NIFCA, the Office of Contemporary Art (OCA) and the Department of Foreign Affairs. At best, these extra sources of funding function as a supplement.

status, the norwegian scene today

During Electra in 1996 there was an all-including ambition to cover the whole field of electronic art. Developments occurring over the past years have split this all-embracing field into several "sub categories" with their own specific and distinctive characteristics.

The Museum of Modern Art in Oslo will, for example, in the spring of 2003, arrange a large-scale retrospective exhibition with the title *Written in Stone – a net.art archeology*. This signifies that the Norwegian art scene has moved a full circle, and is now taking an active role in the international discourse surrounding terminology and genre within the field of electronic art.

There is clear evidence that the current art scene in Norway is able to distinguish between the conceptual "reading" of installations that use electronic components, graphically oriented browser-art (for example, Flash art that can be viewed in a web browser) interactive art that is presented on a cd-rom, net.art that requires the use of a network, and Digital Art that is manifested as manipulated photography, for example.

The terms in circulation are many and often shift meaning over periods of time, which has the effect of keeping general discourse alive. In recent times there have been several debates about how to understand art works that cross boundaries between several genres and disciplines.

Many of the established actors in the field of electronic art now operate within an international network which include the KHM (Cologne), V2 (Rotterdam), WAAG and STEIM (Amsterdam), ZKM (Karlsruhe), Rocket Network (based in UK), NICE, X-change and Shinkansen (UK).

In addition, the so-called "four PNEK nodes" have developed their own networks both national and international that encompass both practical and ideological fields of interest, and distinguishing specialized areas of competence. Here is a very brief breakdown of these characteristic traits:

BEK Nato, Max, Linux and MSP (software and network/server solutions and workshops).

Atelier Nord Syndicate email list, workshops, Baltic Lands, and dvd production.

NoTAM Sound, web-hosting, workshops. production and Kunstnett.

TEKS New media production, focus on local resources.

fringe media

Several interesting discussions have taken place via email lists initiated by actors in the field of electronic art. Critical, radical discourse with strong roots in conferences such as Deaf and Ars Electronica characterize this milieu. Email lists such as *nettime* and *syndicate* are still strong. The milieu in Norway has been internationally oriented (or at least exposed to international influences) for several years, often with cross-over/mutual reference points. This has led to heated debates in the milieu with regards to political, ethical and historical art issues. When participants meet in professional exchanges the discussions usually swing in a multitude of directions, from the relationship between institutions and electronic art, to mediation,

production and financing conditions, and artistic and technologic competence. In a small, sparsely populated country, with strong and active art practitioners it is not surprising that the topic of debate also revolves around questions of capacity.

Several email lists exist that place themselves within the art sphere, and where the primary language is Norwegian: *101* is an open channel for Norwegian art activities. This list is not moderated, and is an agora for discussions, spreading of texts, announcing art events and other relevant information, such as a heated debate about graffiti and art.

e-kunst is a moderated list, and is one of the more thematically restricted email list of its kind stemming from Norway. This list is supposed to function as an interdisciplinary network builder and debate forum for artists, theoreticians and others working in the field of art and new technology. *E-kunst* is liberally edited and follows two guidelines: Art and new technology is the theme of the list, while taking into account that the list should also function as a professional, social network and a forum that provides an atmosphere where cross-disciplinary collaborations can take place. This necessarily includes providing a space for conversations that deviate to some degree from the theme. Information about projects, publications, exhibitions, lectures, concerts, seminars, conferences, open positions – in other words, everything that creeps and crawls in the field of electronic art in Norway is distributed through this organ. *E-kunst* also functions as a fruitful network for distributing and receiving feedback on texts.

BEK's email list, *BB*, functions as an internal notice board for BEK's activities regarding practical information, but can at times also become an arena for the most heated professional debates. The list consists of around 50 subscribers, and is open for all to join. BEK also administers */55*, where postings are made in English. */55* is specifically targeted at NATO.0+55 users. TEKS runs a list called *MEKKVERK* that seeks to bring regional representatives together. *MEKKVERK* is a local email list where subscribers can coordinate their specific needs, seek out appropriate resources, exchange knowledge, lead debates, develop ideas and promote up and coming events.

In addition to these email lists there are several other channels that function as open forums, but also more specialized channels of information distribution. Rather than embarking on an open-ended process, these channels tend to produce single feature articles or "Special editions", where an attempt is made to give a complete picture of the field. The result is generally superficial, and the content lacks reflection about the "inner discourse" of electronic art. However, there are several examples where this is not the case. *Morgenbladet*, the net magazine *Localmotive*s, *Billedkunst*, Jill Walker's Blog project, UKS-forum and *Kunstnett* are some such examples. The mass media in Norway are not as keen to cover issues and events surrounding electronic art as they were in the "techno-euphoric" period of the mid nineties, and there is now almost no activity on this front at all. This is not surprising. Mass media coverage of contemporary art in Norway has always been a sorry state of affairs. The field of electronic art is problematic, and to a certain degree, generates problems. This often leads to the need for discussion, perspective and specific professional competence in the field. You will have to search very hard to find such qualities in the realms of mass media. This situation

can also be seen as a challenge, and actors in the field of electronic art should look for ways of feeding information in and out of channels that currently lack the knowledge to conduct quality coverage of this field.

seminars and forums

There is a currently much activity geared towards arranging seminars and forums in Norway, and the milieu shows a strong sense of commitment towards co-operation and exchange of resources in this respect. At the same time, seminars are being organized on a more open principle, and include actors without special knowledge of electronic art. The examples given below are intended to give a picture of the scope of these activities.

In October 2002 NoTAM arranged a conference in co-operation with PNEK entitled *Elektronisk Kunst I det Offentlig Rom* (Electronic Art in Public Space) where the main topic of examination was the following question. "What is electronic art and how can it be applied to public space?" The conference attempted to give a general impression of the status of electronic art today, and tried to pin point possible solutions for increasing the use of electronic art in public space. The conference presented several perspectives of these two issues, and attempted to give a picture of the whole process – from the artist's initial idea to the realization of an installation. This conference has proved useful for several target groups – architects, constructors, public commissioners and funding bodies, creative artists, art mediators and theoreticians, and attracted almost 200 participants. The conference illuminated the potential uses of electronic art in public space that are possible to implement at the current point in time, while attempting to reveal the ideas for such an activity from within the electronic art milieu itself. The various introductory speakers proposed, amongst other things, definitions of public space, electronic art in public space as a forward-looking contemporary art form, the characteristics that define electronic art including its various manifestations, and the cross-disciplinary, hybrid nature of electronic art including production conditions for electronic art in general. They also referred to both the funding system and workshop facilities that exist in Norway today in connection to these propositions.

The workshop *SUX*, directed by Atelier Nord through the initiative of Atle Barclay has become an established forum for technicians and artists working creatively with server and network solutions. The workshop program has included presentations of organizations and groups, and exchanges of competence, technical infrastructures, art projects, software and codes. The workshop created valuable contacts between actors in this field, and resulted, amongst others, in the suggestion to interweave the four nodes' equipment bases. In addition discussions were raised about issues such as web mail solutions and how to exploit the four nodes' server resources.

In November 2002, TEKS in Trondheim arranged *Trondheim Matchmaking* for the third time, with the intention of helping to establish a regional network for electronic art. Over 130 participants took part in the seminar, and represented a large percentage of the technology-, research and cultural milieu of Trondheim. The seminar focused on presenting new projects

and strategies within the field of art and technology. *Trondheim Matchmaking* is a positive example of how a local network can function as a springboard for further development.

Io-LAB in Stavanger opened its doors for the first time with a seminar called *ZIP*. The aim of the seminar was to give the worklab a kick-start in the task that lay ahead, namely to establish a milieu for electronic art in the region. Artists and organizers from the whole of Scandinavia were invited in order to show the broad spectra of work in this field. In addition, local artists and art workers presented their work.

There has been an abundance of seminars and worklabs organized throughout the country in the last few years. For example, *Hotwired Live Art 1* took place in 2000 in Bergen and *Glitch* in Oslo in 2002, Both arranged and produced by Motherboard. *ArcArt* was held in Tromsø in 2002, and *Stunt Club* took place in the new intermedia room at Kunstneres Hus (the Artists House) in Oslo, spring 2002.

conclusion

The Norwegian scene shows a very active participation in the new media field, mainly of an interdisciplinary nature. The number of hybrid productions and actors within the field of electronic art is on the rise. It is highly predictable that the environment for this field will undergo rapid changes in the immediate future, and crossover productions and the growth of new actors in the field are strength. The whole field, producers, funding bodies and artists alike, must be prepared for the fact that these changes may happen faster than expected. We operate in an unstable arena – the ability to move quickly in a changing landscape is one of the most important challenges that face the field of electronic art today. User services require considerable permanent management costs and constant updating of technical equipment. At the same time more people are acquiring their own equipment and non profit companies. Priority should be given to strengthening collaborative work, information exchange and consultation both between the established centres and the independent milieu in Norway and abroad, as well as the public and media.

Translation: Amanda Steggell

notes

¹ I would like to acknowledge the valuable consultancy by Per Platou from Motherboard, who contributed several insights on professional issues.

² Welsh 2002.

³ Wiland 1999.

⁴ Sørby and Rasmussen 1996.

⁵ Kulturdepartementet 1996.

⁶ Wiland 1999.

project presentations from norway

trondheim matchmaking – seminars and workshops 2002

In 2002 Trondheim Electronic Arts Centre ran a series of seminars and workshops titled Trondheim Matchmaking. The idea is to create a meeting place for competence and resources within electronic arts and new technology, particularly local, but also national and international. In order to coordinate local resources within electronic arts and new technology, they invited artists, technologists and theorists to give short presentations of current works and projects in three parts during the year. Trondheim Matchmaking gives rise to optimism for the Trondheim electronic arts community as well as TEKS' strategy of being a project oriented, easily manoeuvrable media lab with a small administration. Through interdisciplinary connections made in a local network for electronic arts and new technology TEKS sees possibilities for new and fruitful constellations.



photo by : per christian klingenberg stokke

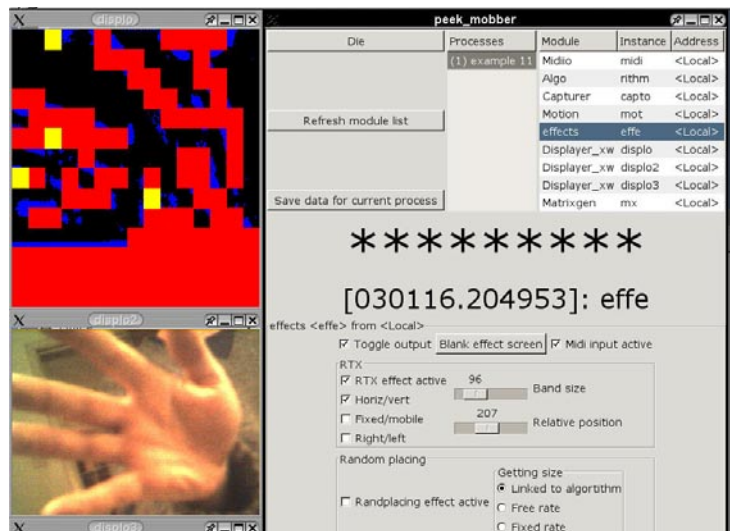
project name: trondheim matchmaking
 what: seminars and workshops
 when: 2002
 where: trondheim
 initiator: teks
 funding: arts council of norway and pnk
 url: <http://www.teks.no>

sux, møb - freeze - artists working with servers and networks

The scope of SUX was to establish a forum for techs and artists working with server and networks. Most of the participants are connected to the PNEK - network. The workshop was first and foremost intended to establish contacts between people in the art scene working with servers or network technology. The program included presentations regarding the organisations and groups; their know-how and technical resources, relevant art projects, software and scripts. The cooperation can take the form of exchange of technical resources, know-how, code, common projects etc. In time SUX could give the participants the opportunity to follow a server strategy based on network resources.

project name: sux
 what: server and networking workshop
 when: october 3th -5th 2003
 where: oslo
 initiator: atelier nord
 funding: pnek
 url: <http://www.anart.no>

project name: møb - freeze
 what: installations and realtime multimedia
 when: 2002 –
 where: bergen
 initiator: bek / gisle frøysland
 funding: arts council of norway, city council of bergen and pnek.
 url: <http://www.bek.no/mob>



MøB is an environment for installations and realtime multimedia manipulation in Linux-based networks. The software engine is developed by BEK in collaboration with programmer , and will be further developed as open source towards a multi-purpose tool for live video under Linux. 220Hex and BEK presented a preview of the Freeze! project at Landmark. Freeze! is a video-installation by . The installation is based on a multi-camera system for realtime video-treatments in a Linux-based network. The session at Landmark was the first public presentation of the project. Gisle Frøysland did live Freeze!-variations and dj Anders G. spined a mix of ambient elektronika and fluffy grooves.

242.pilots - a live video improvisation ensemble

Utilizing their own custom software created with the innovative and controversial nato.0+55 programming environment, 242.pilots expressively improvise rich, layered video works in real-time: as soloists, in duet and as a trio. The performance software created by Gilje, Ralske and Lysakowski allows video to be controlled in a fluid and expressive manner. In group improvisation, the three artists respond and interact with each other with the intuitive

subtlety found in the best free jazz ensembles. The end of product is a complex visual conversation: a quasi-narrative exploring degree of abstraction, mytho-poetic elements, the nature of sign, syneesthesia and raw retinal delight. 242.pilots have performed at The Museum of Contemporary Art in Montreal, at Transmediale,02 festival in Berlin, STEIM in Amster among others. Norwegian premiere during The Ultima Contemporary Music Festival in Oslo 2002. Some of their newer work also explores the uncharted territory of simultaneous video output, or improvised video used to generate audio.

project name: 242.pilots
 what: performance software and live events
 when: october 2002
 where: oslo, ultima contemporary festival
 initiator: hc gilje, kurt raskle, lukasz lysakowski
 url: <http://242pilots.org/>



localmotives

Localmotives is a netmagazine on contemporary art and culture. The main issues have been on topics such as: Humour, Poplyrics/Soundart, Places, Cultural writing, Net art, Truth, Economy, Popular music, Political theater, etc. The contributions may vary from texts and art to soundclips and animations. The editors have a broad network with artists and writers especially in Scandinavia. Occasionally they collaborate with other groups of artists to form happenings related to the topics in the magazine. Localmotives was in 2001 elected as the art site of the year by Artnet Norway. In 2002 they were invited to EPMC – European Peripheral Magazines Conference, in Lund, Sweden. From 2004 and on Localmotives have, in addition to the netmagazine, ambitions to establish an international biennale of videoart and experimental film. The biennale will be situated in Stavanger, possibly one of the European Capitals of Culture in 2008.

project name: localmotives
 what: net magazine
 when: founded spring 2000
 where: stavanger
 initiator: the four editors
 funding: norwegian council of cultural affairs and stavanger city council
 url: <http://www.localmotives.com>



key findings and proposals for norway

findings

The Norwegian scene shows a very active participation in the new media field, mainly of an interdisciplinary nature. The number of hybrid and crossover productions and actors within the field of electronic art is on the rise. Projects vary from a pure production- and research orientation, to projects that seek to spread information to the public.

The ability to move quickly in a changing landscape is one of the most important challenges that face the field of electronic art today. User services require considerable permanent management costs and constant updating of technical equipment. At the same time more people are acquiring their own equipment.

The segmented conditions for cross-disciplinary practices, for example audio-visual collaborations, shows a growing need for an apparatus that could co-ordinate a cross-disciplinary collaboration where artists from different genres have the possibility of reaping the benefits of each others experiences, and become influenced by each other in their work process. In 2000, The Norwegian Council of Cultural Affairs funded PNEK – Production Network for Electronic Art. PNEK is financed by the Norwegian Council for Cultural Affairs (2 mill NOK yearly), and is a temporary project with a time span of four years. PNEK works with production development, competence raising, and raising the awareness about electronic art by providing information about this field. PNEK's network is built around four "nodes" or media labs located to three cities of Norway. PNEK works on the basis of providing greater degrees of effectiveness and coordination that traverses both geographical and disciplinary borders. PNEK also aims to be flexible, and is therefore available to assist individual artists and artist groups in their own productions, projects and networking.

There are a great number of projects concerning art/new media, media/new technology that are initiated and produced outside the established media centers. The way in which actors perceive their contact network is varied. In contrast to independent actors, those connected to organizations have, in practice, a better chance of utilizing established networks.

The interest for technology in the field of art is constantly on the rise, and is therefore reflected in the growing number of grant applications received by general funding bodies. It has proved difficult to cover the costs of larger projects. A question to be tackled is whether priority in funding should be given to breadth or specialized competence.

The Norwegian Council for Cultural Affairs has played a significant role in the development of the electronic art field in Norway. From 1998 the Norwegian Council for Cultural Affairs administered NOK three million per year to the category of Art and New Technology (KNYT). A new support area has recently been defined that provides equipment funding for independent workspaces that are run collectively under the leadership of a general manager who is responsible for providing continuity. There are also resources ear-marked for the field of performing arts and new technology (around NOK 800 000).

There is a general feeling of uncertainty amongst artists and producers as to what projects can apply for funding, and how these are defined within the framework of the Norwegian Council for Cultural Affairs. However, this just goes to show that the area of art and technology is in development and on the move, and that it may just be inappropriate to try and define certain projects by labeling and categorization.

Network building occurs on both formal and informal levels, as well as national and international levels. Many actors in the field can refer to a comparatively wide international network. Examples of international institutions and organizations that have connections to Norwegian artists and artist groups are KHM (Cologne), V2 (Rotterdam), WAAG and STEIM (Amsterdam), ZKM (Karlsruhe), Rocket Network (based in England) and Shinkansen (England). Norway plays an active role in the international cultural landscape by offering residencies and guest studios to artists from abroad.

Education in Norway has experienced a lift through funding targeted towards the establishment and development of media departments at the National Academies of Fine Art in Oslo, Bergen and Trondheim. This has resulted in growing numbers of practitioners, and in 2002 there are many newly graduated artists with competence and experience in the use of technology in their art making process. This leads to an increased and more advanced use of technology.

Electronic art has had a somewhat “novelty” effect attached to it with the result that many projects from previous years today seem outdated. Due to the bad availability of appropriate documentation, it is hard to assess these earlier works retrospectively.

There is an ongoing debate concerning the role of art institutions as purchasers and archive keepers of electronic art. Several models have been discussed, and a proposal was made recently to treat net.art as a social and temporal art form with strong contextual connotations. It therefore seems appropriate to treat such works in the manner of performance art, for example, where documentation of an event becomes the art “object”.

The survey revealed that few of the actors have contact with industrial partners, apart from those directly involved in such enterprises. This is partly due to the fact that the majority of Norwegian respondents worked in non-commercial contexts. The self-evaluation also showed that both promotion and networking activities should be generally strengthened.

proposals

There is a great number of projects concerning art/new media, media/new technology that are initiated and produced outside the established media centres. Priority should be given to strengthening collaborative work, information exchange and consultation both between the established centres and the independent milieu in Norway and abroad, as well as the public and media.

The field of electronic art should test how far the technical/administrative network collaboration can be pushed, and through this, find new models for working together. In general terms this field must work towards achieving a stronger interdisciplinary exchange.

Norway plays an active role in the international cultural landscape, by, amongst other things, offering residencies and guest studios to artists from abroad. This work should be strengthened considerably. Likewise, Nordic seminars focusing on further strategies and exchanges would have the effect of strengthening existing Nordic collaborations as well as drawing the Nordic milieu closer together.

A priority should be made to establish a distribution system for media art that is connected to the process of archiving such works. Work with, and mediation of artistic material such as video and CD-ROM presents special challenges that are connected to specific formats and generations of playback systems. A more effective system of archiving and distribution should be developed that makes the process of seeking out artist work easier for curators, exhibition producers, theorists and other interested parties. The collections of video art that exist in Norway are currently inaccessible for both professionals and the general public. In acquiring and archiving net art pieces, it is appropriate to create documentations which capture the social and temporal contexts of the art work.

The process of documenting projects and art works should lie in the hands of producers to some degree (in connection with the National Library, for example). By applying the notion that documentation and art criticism are related, it should be possible to ensure that emerging art works have the chance of being considered from the perspective of art history. This would also make the job of art critics and writers easier and may possibly generate more interest in writing about electronic art.

In general terms the small strong Norwegian milieu should improve its ability to communicate its opinions regarding areas of production conditions.

anne mette stevn, denmark: working on the edge

starting point and delimitations

The starting point of the Danish study is a research undertaken in 1999 on new digital media, summarized in Digital Grey Areas,¹ a report outlining the digital multimedia scene in Denmark at that time.

Thus, the contacts used for this research into "Nordic Media Actors" emanate from the database of the previous report. In order to make the list of participants as extensive as possible, and to avoid an "artistic bias" with projects and groups depending on cultural funding, we performed additional interviews with key figures in the field, who were able to add new cases to the database². These interviews also contributed to a more precise picture of the new media sector right now in Denmark and a fuller insight into the common experiences and wishes within the field.

participants

Out of the complete database of 75 cases it was possible to send out 55 questionnaires. We received 21 responses that can be divided into the following main categories: interactive, audiovisual productions (cd-rom, DVD, video/rom and tv); internet art; design; and art publications and events. Many of the participants move between the different forms of production and so the division is partly theoretical. Overall it is a common characteristic for the participants' projects, that interactivity plays a large role in the concept.

The study has a fair representation of fields like design, computer games, internet art and partly literature, while visual art, music and partly theatre are poorly represented. And unfortunately the education and research sectors are not represented in the responses.³

from "digital grey areas" to "new media actors"

From the research on Danish multimedia actors of 1999 the following key points can be discerned: The digital media field was a meeting point for traditional, professional disciplines, where the artistic field aimed to co-operate with technology. This entailed "growing pains" for the sector, as traditional, professional boundaries were blurred in cross over productions. There was an increasing amount of people with various background working in the field; multimedia actors with competence both in creative, expressive professions, and in digital technology. The productions were often *ad hoc*, and participants wished for more or continuous support for all production phases: development, production and distribution. Furthermore there was a wish for an organisation or centre for new media in Denmark, a forum that among other activities could build networks and give further education within the field.

Generally speaking, the scene of new media culture in Denmark is unchanged since the report from 1999. The survey database consists basically of "the usual suspects". This points to the fact that many of the participants have been able to stabilize their activities through continuous projects and a solid network and organisation.

It can be pointed out that most of the actors in our survey also know each other. This naturally has an influence on recruiting and the exchange of experiences. So, in many cases an individual can be employed full-time for some months for instance in a computer game company or an educational institution, while working on a more experimental "con amore" project on the side.

restructuring and new initiatives

Danish game production has, like the rest of the world, experienced the burst of the IT bubble; some Danish companies have survived through restructuring and slimming down the business, while others have made commercial breakthroughs, like IO Interactive.

New initiatives have been launched to build bridges across traditional professional divisions - for example **Filmværkstedet** (the Film Workshop) of The Danish Film Institute in Copenhagen, which runs three "Interactive Film" projects until spring 2003.

Although many of the organisations, groups and individual actors have "survived", they say they are now in a waiting position, wary about the future. Many respondents see themselves excluded from realistic funding opportunities within the sector. This is due to the fact that some of the key culture and art foundations have been closed or restructured; for instance the Danish Contemporary Art Foundation (DCA) has been integrated into the new Arts Council, and the Ministry of Culture Development Fund (KUF), who previously embraced digital multimedia as a special area of focus, has also been closed down.

Other state-funded collaboration partners have slammed the door on digital media, like the Danish Film Institute who in its recent business plan had to give up on multimedia. Some actors have been saved at the last minute: for instance the **Danish Institute of Electroacoustic Music** (DIEM), experimenting with music and sound, was closed as an independent institution, but its activities were taken over by Det Jyske Musikkonservatorium (The Royal Academy of Music).

strengthening the networks

Half of the participants list that they work with around five projects a year. Most of them receive a yearly income of less than 200 000 DKK from these projects. One half receives funding from e.g. cultural funds, and out of those only a handful depends exclusively on cultural funding. In comparison, 4/5 of the respondents say that they base their budget partly on project income, and one half bases their budget exclusively on project income. This is a significant difference to the study of 1999, where practically all participants were in one way or another dependent on public funding (e.g. from KUF, DCA, Teknologisk Innovation).

This indicates that the groups, companies or individuals who still work in the field have had the opportunity to stabilize their activities to a certain degree - based on funding!

The practitioners' networks are mainly based on personal contacts, and within all the main groups it is not rare to see that the partners are foreign. The partners consist of researchers, teachers, students, independent artists, "hired help" and various distribution channels. Furthermore it can be noted that the partners are more often European and International than Nordic.

“the soft”

The ‘soft’ group of respondents mainly includes practitioners in the non-profit, artistic or cultural sector. In producing internet art, art publications and events, the working method is often *ad hoc*. However, compared to the survey in 1999 one notes that the groups are better organised as far as fundraising, work responsibilities and project processes are concerned (not to mention completing the projects). The groups or actors work together in small units, which again spin off personal projects.

The collaboration partners are found through personal networks, and for those whose main area of employment is not new media, the networks stretch out to students and research colleagues. Thus the partners also include Nordic or European colleagues and/or artists.

The projects are state-supported and non-profit, and the participants often receive only a symbolic fee for their work. Distribution or exhibition of works and/or projects is rather limited and depending to a certain degree on the participants’ other activities. Customers or clients range from museums and galleries to other artists and those interested in art, as well as educational institutions.

“the hard”

Within the survey’s ‘hard’ group of the interactive, audio-visual and design sectors, there are more companies and a more distinct level of organisation, than in the former group. The companies have (had to) specialize and make their activities more effective, which in practice means saying “goodbye” to employees with continuous contracts and “hello” to project-based freelancers. To some companies streamlining the process together with important breakthroughs have allowed them to reach a yearly income of over 5 million DKK.

An exceptional success story within the game field in Denmark is IO Interactive’s second game, *Hitman 2*, which during the first three weeks after release sold one million copies. As a comparison, it took the Danish export success, the pop band Aqua, 18 months to sell 1,5 million copies of their first album!

The customers of the “hard” group are other companies, organisations and individuals, the so-called leisure-time groups, primarily children and young people.

As stated earlier, the network within digital multimedia is very small, most people know one another, and it is often practitioners from the “soft” group that are recruited by the “hard” group, for instance to game production. This also demonstrates a typical trait of the people active in digital multimedia, namely their wide professional competence which ranges from aesthetics to technological skills.

education and research

As stated earlier, education and research are not represented in the returned questionnaires. However this doesn’t signify that digital multimedia is a neglected area within these sectors. Both education and research is performed in areas of digital aesthetics, visual communication, interactive media and interactive design at design schools, universities, architectural institutes, the IT University and the art academies in Denmark.⁴

The educational institutions co-operate in order to cover the field, though primarily in separate parts of the country (see also interview with Søren Pold below). Apart from personal contacts, that sometimes lead to broader collaborations, there are seldom initiatives that open up working spaces between the sector of education and research and the sector of independent art and production. One exception is **CAVI**, The Centre for Advanced Visualisation and Interaction (concerned with interactive visualisation techniques and 3D modelling) which has established official collaborations with companies, educational institutions, museums and artists. Or **Learning Lab Denmark**, affiliated with the Danish University of Education (DPU), a research centre co-operating with the business sector.

needs and a look at the future

Many respondents are distrustful of the future, describing it as "very bad indeed!", "bleak" and "terrible!". The participants express a strong desire and need for more financing opportunities, namely a public art fund. Financial support is desired for project development, prototypes and production costs (materials, fees, travel costs etc.). And as one participant expresses himself, it is crucial in the field of new media that the funds "go for the ball and not the player."

This was the view of the practising artists. But during the interviews it became clear that also educational and research institutions are in need of financial support for research and development of digital media.

In this context many respondents also expressed a need for a fixed location or forum for new media culture. It should be an independent organisation that coordinates the networks of projects and partners, arranges workshops, acts as a consultancy on funding, and functions as a documentation centre for productions in the field.

national support and policy

In January 2003, the Danish Minister of Culture brought in a bill concerning a new structure for the support of the arts and international cultural exchange. The bill was passed in March 2003, and the new structure merges The Music Council, Theatre Council, Visual Arts Council and Literature Council into a single Arts Council, which will have overall responsibility for the distribution of support in these areas, including new and interdisciplinary forms of art and areas of special interest.

The new Arts Council will be the most relevant public support organ for experimental multimedia projects in Denmark. The proposal contains a wish that the Arts Council "have the main responsibility in developing the dynamics between different art forms and guaranteeing a better handling of applications that concern crossover projects and innovative art."

The present survey indicates, that in this context it is vital to recognise that digital multimedia already is accepted as an independent genre in Denmark, which should not be forced to fit into one of the four main categories.

At present Danish support schemes relating to media culture also include:

- *Filmværkstedet (the Film Workshop) of The Danish Film Institute (DFI) started three interactive film projects in 2001-2003 in collaboration with DFI and the Ministry of Culture Development Fund, and it is the intention of Filmværkstedet to produce more DVD projects in 2003.*⁵
- *The EU programme Media+ has funding opportunities for multimedia projects which however must compete with other European projects, and one criterion is that the candidates possess 50% matching funds. This can be problematic for Danish multimedia actors, who normally don't have any own capital, as well as for multimedia productions which, e.g. within the game sector, are very expensive.*
- *In the education sector an agreement was recently made on 18 art education programmes that receive support from the Ministry of Culture. The agreement is significant for the focus on new media within educational and research institutions. Altogether the schools will receive around 265 million DKK, that will be used to strengthen the professional level, for instance through establishing a new competence centre for design and music education and a research-based design education programme in Denmark.*
- *The recent reorganisation of the exhibition space **Overgaden** in Copenhagen into an Institute of Contemporary Art holds potential opportunities for Danish actors in digital media. The financial foundation of the institute is an appropriation from the Visual Arts Council (Billedkunstrådet), and the aim is to "function as the catalyst and arena for art, debate, discussion and thinking in the form of exhibitions, seminars and video presentations".*
- *During the Danish EU Presidency in 2002 the theme of "framework conditions for content production in the new interactive media" was put on the agenda, and the Danish EU Presidency, together with the EU Commission, organized a seminar where the perspectives of interactive media in cultural policy were discussed. In June 2002 the Ministry of Culture received a background report on the issue.*⁶
- *It appears that the collaboration between the business sector and the cultural sector is now becoming more established. Together the Ministry of Culture and the Danish Ministry of Economic and Business Affairs have also supported initiatives like **Louiz**, a project that supports cultural entrepreneurs, and **NyX**, a forum for collaboration projects between the business sector and the culture area.*

notes

¹ "Digitale Gråzoner" (Digital Grey Areas), Stevn 1999.

² In our selection of participants we have tried to cover the range from artistic-experimental activity to wholly or partly commercial actors.

³ There are several reasons for this and for the small amount of responses in general: the research was done during summer vacations and had to be done during a very limited period of time. It is also likely that the technical demands to filling out the questionnaires were too high for both the participants and their computers.

⁴ For a listing of these, see the online database at <http://www.m-cult.net>

⁵ The Danish Film Institute wanted in its original action plan to allocate 25 million DKK during 2003-2006 to a new support system for multimedia, but this proposal was left on the table again, and the new agreement left out experimental multimedia projects.

⁶ Interactive culture products as area of focus, 2002.

danish new media actors: three cases

case: artnode

(Based on an interview with Martin Pingel on June 20, 2002)

Artnode is a private, non-profit project established in February 1995 in Copenhagen. Their main goal is to distribute, exhibit and develop net art as well as art activities within digital media. At more than 100 artists are presented.

Members of Artnode are at present Niels Bonde (visual artist, teacher at Malmö Art Academy), Nikolaj Recke (visual artist), Mogens Jacobsen (design director at web company Mondo/Genuity) and Martin Pingel (technology co-ordinator at the Danish Design School). Due to their own projects, Kim Borreby (psychologist, founded the first web company in Denmark) and Morten Schjødt (multimedia designer, company: Oncotype) are more sporadically involved.*

Artnode is a "leisure-time project" in the sense that it is run by people having full-time jobs at the same time. Activities around Artnode are thus "con amore" projects, and their coming about is built on personal interest and networks.

Being part of the art tradition is a significant premise for Artnode. Examples of Artnode projects include:

The *High Density* project explored in a documentary way, what interface and interactivity mean, by e.g. interviewing different individuals, namely grand old men in the field of interactivity and digital media in Europe.



artnode's user's club

User's Club at the National Art Museum in 2001 was a physically communicating sculpture that turned directly to the user and was dependent on the user (interacting). (The work is a reference to Alexandr Rodchenkos *Workers' Club* from 1925.)

users and partners

Artnode hasn't made structured user surveys but according to their records, part of the interest comes from educational institutions and most users are people who look for information on other artists.

In most cases, people at Artnode initiate projects themselves. Division of tasks is pragmatic, the starting point being a democratic, "club-like" discussion, during which one of the members is appointed to be in charge of the project (most often the person who originally came up with the idea).

The Danish digital media scene is experienced as "infinitely small", and the members networks mainly originate from their "real" jobs, which means from other researchers and students.

Contacts spread out internationally and are mainly established through personal contacts. They work mostly *ad hoc*. For example Niels Bonde has contacts with German partners, while Nikolaj Recke has a wide network within the Art Academy.

finances

Artnode have not had good experiences with fundraising. Pingel considers Denmark quite conservative as far as art is concerned – also in respect to which areas that receive funding. Artnode has applied for funding from both private and public funds. Their biggest sponsors have been the Ministry of Culture Development Fund and Ericsson.

Funding is project-oriented – it is used for buying equipment, starting up projects, travel costs and paying invited participants. Technology is becoming a smaller and smaller part of the budget, since the people at Artnode have access to technology via their jobs, and also because they work a lot with low-tech.

future

Artnode's wishes for the future include receiving and running their own high-speed server. Artnode will gladly become more "community-oriented", via an open digital platform, that could involve much more people. With the necessary software and location for the server, Artnode would like to give artists the possibility of uploading and distributing their art work themselves.

Artnode has long existed as a platform and has obtained a good reputation as an institution. They are known both in Denmark and internationally, and could therefore function as a natural discussion forum for internet art. Pingel doesn't exclude either that Artnode could function – and already does on a smaller scale – as a meeting point for networks in digital media; but he thinks that their focus is more on people who primarily work in the context of the art tradition.

case: søren pold, multimedieuddannelsen, aarhus universitet

(Based on an interview with Søren Pold on June 21, 2002)

Søren Pold is assistant professor at the Department of Comparative Literature, Institute of Aesthetic Studies of the University of Aarhus (AU). He works in the "IT Park", where the IT research of AU is centered. An education within Multimedia is included in the programme, as a multidisciplinary mix of Computer Science and Aesthetic studies, e.g. History, Literature, Dramaturgy, and Information and Media Studies. Pold's responsibility is mainly within the education in Digital Aesthetics.

Søren Pold's research is partly a continuation of his Ph.D. project on Literature and Media - contemporary and historically – and partly a further discussion on digital media aesthetics with literature as a starting point. His special interest areas are net art and the interface as cultural and artistic form.

collaborations and networks

IT University West (IT-Vest) is a research and educational network between the four university institutions in the Western part of Denmark; Aarhus School of Business, University of Southern Denmark, Aalborg University and University of Aarhus, affiliated with the IT University in Copenhagen.

The IT Park at AU works closely with Aarhus School of Architecture, where training is given in e-design and 3D modelling. They also have a less formal co-operation with Det Jyske Kunstakademi (the Jutland Academy of fine Arts), whose students participate in seminars and lectures at the IT Park.

AU has also officially opened itself towards the business sector at the Alexandra Institute Ltd., which participates in projects and therewith establishes contacts with the academia. It is remarked, that the business sector appears to have a larger interest in computer related aspects and software constructions than in digital aesthetics.

The co-operation between the **Alexandra Institute**, AU and CIT (– which was closed down after 2002) resulted in establishing CAVI, Centre for Advanced Visualisation and Interaction. Activities of the Centre are focused on 3D modelling, and they co-operate with both the business sector and research institutes in different projects in which artists are invited to participate. The projects are either industrial or research projects.

Pold has, together with other researchers, established the Center for Digital Æstetik-forskning (**Centre for Digital Aesthetics Research**) at the IT Park. The centre is a research network, assembling people interested in digital aesthetics within the Aarhus area. At present the centre consists of 23 members. Their vision is to give national visibility to the field – both within the aesthetic disciplines and the IT branch in the universities – so that the different sectors could work together. The research at the Centre for Digital Aesthetics aims to raise research funding for bigger arrangements and conferences that can contribute to bring or push the field forward - also on the cultural political agenda.

Søren Pold thinks that internet art production and hyperfiction are generally not taken seriously in Denmark and finds it only logical that the practising Danish actors in the survey turn towards the international scene. Pold himself co-operates with both Nordic and European partners.

visions for the future

Søren Pold calls for a manifestation of or an investment in digital aesthetics in Denmark. He considers it of a high importance to create forums that perform research and give education in digital aesthetics. But he regrets that support structures are lacking and often the allowances are used for "technical fixes", that is cables without content. In Pold's point of view, education has a key role for the development of high-quality content!

While the IT funding goes to technical or business-oriented projects, the resources in the art sector concentrate more and more on traditional art genres, which makes the situation problematic for crossover projects that intersect several areas of expertise.

If a sector within the art world to develop, experimentation is required. This has been understood in architecture, where projects that can be regarded as "light houses" in the field are made or built in order to affect the architectural sector as a whole. Pold solicits support for both grass-root artistic activity, as well as education and research, and support for philosophical and artistic projects within web design, game, interaction design, storytelling etc.



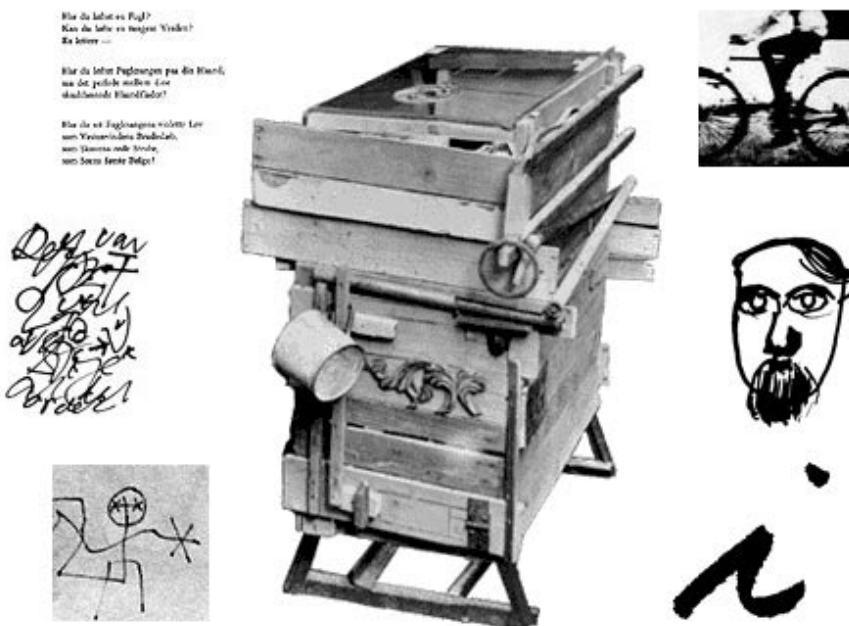
pöld with elvis

case: afsnitp.dk

(Based on an interview with Christian Yde Frostholm, on July 5, 2002)

Afsnit P is a virtual exhibition room for visual poetry, literature, and visual arts at www.afsnitp.dk. The project emanates from an earlier “Afsnit P”, a bookstore and an exhibition room for poetry between 1994 and 1998 in Nansensgade in Copenhagen. The bookstore was owned by Christian Yde Frostholm (CYF), writer and poet. In the bookstore CYF saw an opportunity to create a space where one could work visually with literature and consequently also with visual art, though emphasizing that the literary, textual aspect, would always be in the forefront of the visual aspect.

The bookstore was closed in 1998, and in 1999 CYF opened Afsnit P on the internet together with authors Charlotte Hansen and Karen Wagner.



from afsnitp's corydon project

activities

Afsnit P is a mixture of a gallery and a magazine. The web site contains both articles and announcements, and a gallery - exhibiting projects.

One example of a project is “Landskaber omkring digtet Kompas” (2000) (“Landscapes around the poem Compass”); a study of Morten Søndergaard’s poem *Kompas* from 1998 in text, graphics, illustration and sound. In the project, Søndergaard, CYF and graphical designer Christian Leifelt worked together to create a graphical, animated and interactive surface for a new collection of Søndergaard’s poems. The aim was partly to create something new, partly explore something old and thus create new ways to study the poems.

As the example shows, Afsnit P emphasizes the role of experimenting with form in their projects; the media must be used to create new encounters between different disciplines and artists. Therefore Afsnit P doesn't publish poem collections or functions as a picture gallery or exhibition arena of concrete art works.

form of activity and collaboration

The editorial staff consists of the three initiators but there has been up to five members (the three mentioned plus Andreas Brøgger and Peter Eriksen). The form of activity is *ad hoc* projects with changing compositions of participants.

Most of the projects are initiated by the editors themselves through their personal networks. The work at Afsnit P is mostly based on voluntary work, and therefore neither the editors nor others can be employed for longer periods of time. Possible compensations are mostly symbolic.

CYF is responsible for the technical aspect. He is self-learned, and in addition to Afsnit P not being able to afford a professional programmer, that means a limitation to the use of the media. Often the decision regarding a project is made according to who has the time and who, purely practically, is able to do what.

In addition to the editors Afsnit P has several collaborators from both Denmark and abroad. One part of the network consists of eight "correspondents", who in 1999-2001 contributed from their part of the world to the exhibition "Udefra" ("From Outside").

finances

Since the Ministry of Culture Development Fund (KUF) was closed in 2002, Afsnit P's economy has been at a standstill. They have had two good years, during which their projects received funding primarily from KUF and also from the Development Fund of the Copenhagen Commune. At present Afsnit P receives magazine support from the Danish Ministry of Culture. The Literature Council has supported the project "Afsnit Ps nye Parløv" (2002) ("The new phrase book by Afsnit P"), but the support is minimal compared to that from KUF.

Afsnit P has applied for funding from private funds, but without results. The general experience is that there are too few places to apply for funding from, and the effort is strenuous compared to the results.

In the beginning the funds were used for equipment and office space, but since then it has been used to pay for the increased need of network capacity and fees. Only very recently Afsnit P became located at Fabrikken for Kunst og Design (The Art and Design Factory) in Copenhagen in a collective atelier for 50 artists.

Translation: Tiina Porthan

key findings and proposals for denmark

findings

There is an intense need for state funding of new digital media art in Denmark.

Many participants in the survey call for a manifestation of digital art in Denmark, a place where the organizations, groups and single actors can meet. A place that also coordinates and documents the different areas of new digital media culture in Denmark.

The networks and partnerships are mostly based on personal connections rather than institutional co-operations.

There seems to be surprisingly little wish for co-operation between on the one hand the artist milieu and on the other hand the university and educational institutions.

Overall, the funding need for hardware is far smaller than the funding need for content production.

In their collaborations, the practitioners seem to turn more towards European and International than Nordic partners.

Compared to the situation in 1999, the companies/projects are getting better organized; even though the actors in the field still work with “con amore” projects, these projects also bring the actors (some) returns and ways to earn a living.

Many projects are still ‘ad hoc’ projects, but people work far more with the same partners again and again than they did in 1999 where most of the productions were ad hoc projects.

Danish computer game productions have become a big export success. For instance the game *Hitman 2* (by IO Interactive) has made more money than the first album of the internationally successful, Danish pop group Aqua!

proposals

Based on the answers in the Danish survey the following general proposals can be summed up:

State funding of new media art and culture should be increased in Denmark. Among the more commercially oriented actors, finance- and support-models similar to the film industry should be implemented.

A centre or a media lab should be established to act as a meeting place for organizations and groups as well as single actors in the field. This organization should coordinate and document the different areas of Danish new media culture, as well as network partners and projects, as well as give advice on professional and funding questions. Ideally the centre should have independent status in stead of being subject to traditional disciplines.

Research and education in new media culture should be furthered. Laboratories offering work facilities and practical training should also be established.

margrét elísabet ólafsdóttir, iceland: lost opportunities?

Introduction

Iceland's particular position as a small and isolated country becomes very clear when one looks at the new media scene. Its history is short and fragmented, based on individual activities and not a general movement. It might be compared to Icelandic film industry which became reality almost 100 years after the Lumière brothers showed their first films. It is only possible to suggest why a similar retardation happened with electronic arts, but it may be related to the still vivid debate about the validity of painting as media versus conceptual art that has been going on in the art scene for over thirty years now. While this quarrel has had a long life, the electronic arts never really took off despite some isolated individual experimentations and use of video in the late seventies and early eighties; and despite the fact that musicians have been using electronics for years. – In contrast to these facts, one of Iceland's finest artists at the moment, Finnbogi Pétursson is working exclusively with electronics to make remarkable sound installations; and one of the international video art pioneers Steinunn Bjarnadóttir or Steina Vasulka, is Icelandic.

When it comes to new media, the digital tools issued from the computer and information technology, visual artists have only recently started to consider them seriously while some have already dedicated themselves to them entirely. The computer has been more easily accepted by the graphic artists who use it like any other graphics tool. This is about to change as the Visual art department of the Academy of the Arts has been building up its own digital media and video workshop over the last two years. New media tools are becoming tools for artists to express their ideas. So far, visual artists have been experimenting with computers in individual projects like *Craters of the Moon*, *Cafe 9* and *At* but they haven't continued to work with the medium. Over the last ten years, artists have regularly tried to get governmental funding to open a residency and a media lab in Reykjavik, but without success.

who's working with new media

In Iceland there have never been long-lived collective movements around electronics or new media, except in music where experimentation has been going on uninterrupted for years. As there is no information gathered about actors working in the field, sending out the survey questionnaire for the Nordic research seemed to be a real opportunity to find more about the actual situation. Thus the questionnaire was sent out to a variable range of individuals, associations and companies working in multimedia. About eighty companies and individuals were contacted, but only twenty responded, almost all of them artists.

These artists do not represent a homogeneous group, although they have a common educational background from the art and music schools. The majority considers the artist profession as their main area of activity, but most of them are doing different kinds of work to earn their living. They are teachers, journalists, editors, producers, translators, assistants,

graphic designers and web designers, as well as programmers and administrators. Some of them work with new media production companies or have created their own businesses; many use their technical skills to build web sites or do graphic design for the corporate sector and public institutions. This means that they use their new media technical skills to earn a living, but those activities are clearly separated from artistic new media projects - for galleries and museums which was in all cases considered an unprofitable activity. Two individuals involved in the research are working for companies that produce entertainment products. Their production is opening up possibilities for the development of new kind of cultural industry in Iceland: the international market for games and entertainment. One of them, CCP Games, was created by employees of Oz, the successful company that has now moved to Canada where it gets the support it needs. Oz is continuing, however, to develop its project to open up a digital training center for talented youngsters in Reykjavik. This project should get more attention and support from the authorities than it currently does. Companies that are doing well in the technology sector like Marel and Össur do not seem to have any impact on the cultural scene.

profiles of actors

As there is no collective movements or organisational structures supporting new media culture in Iceland, the best way to profile actors in the field is to look at the individuals that took part in the Nordic survey. This also underlines the fact the history of new media culture and practice in Iceland is a fragmented history of individual efforts.

Ragnar Helgi Ólafsson and Páll Thayer are young artists with short careers but their net.art pieces have already been noticed in the international context of new media art exhibitions in Europe. Neither of them makes a living from doing art, even though they can be considered as quite active. Ragnar does both installations and net.art projects based on electronics and new media but Páll has been exploring the relation between abstract painting and sound by creating multi-user interactive net.art pieces.

Sigtryggur Sigmarsson and Birgir Örn Thoroddsen are also young artists with musical background working with sound art and installations while making a living from producing records for musicians and record companies. They have both been living abroad, Sigtryggur in Germany where he's still studying and Birgir Örn in Holland.

Arnfinnur Einarsson is one of the Icelandic pioneers in video and net.art and a sort of legend in the field in Iceland. Among other things, he works with Flash and is experimenting with 3D graphics. His videos can be found in video collections in France.

Pétur Örn Fridriksson became interested in the web early on and did one of the first Icelandic web based art piece, but now he mostly uses his multimedia skills to get paid assignments. He's been working on a video on *Markmid*, his long lasting mixed media project.

Egill Sæbjörnsson became interested in new media in its early period that started with the Internet arriving to Iceland in the mid-nineties, and produced web based work and a CD-Rom. He is a visual artist and a musician actually working on the development of multiple video projections and music-playback to a project that started as a song.

Egill Hlynur Hallsson, Ólöf Nordal, Hlynur Helgason and Helga Thórsdóttir can all be considered as “traditional” artists, that is to say, they are not claiming to be “new media artists”; but they have all been using new media in various ways and degrees. As a curator, Hlynur Hallsson has invested his geographically dispersed gallery **GUK** into the web so that three physical spaces unite in one virtual space on the GUK web site. Ólöf Nordal includes new media in her personal work as a sculptor extending it to digital space. Helga Thórsdóttir looks at new media as a tool to be used if and when it suits the artistic idea or a concept. She is now working on an interactive movie installation on jogging, calories and sight-seeing. Hlynur Helgason, besides being active as artist, is a teacher of junior college where he administrates the multimedia design department. He declares to produce work using different media which may include also new media; his latest web project was realised as an artist in residence project in Prague in 2002.

Not all of these artists have fully developed technical skills when it comes to manipulating the new media tools nor do they have access to all the needed facilities. Those that do are the teachers, web designers, graphic designers and music and video producers. Other artists have acquired technical skills they don't necessarily use to their art work.

Helga Óskarsdóttir founded her own web design company **Traffik** in early 2002 with another artist and a sociologist. They take on assignments from companies and institutions, such as the information homepage on Icelandic artists. Thórarinn Leifsson has a long experience with the Internet and is now working on his own as a web designer, graphic designer and illustrator. Their small companies cannot be compared to **Caoz** and **CCP games** except for the fact that artistic skills and creativity seem to be the foundation for exploiting technical skills. Caoz, with the digital animation film *Caterpillar* directed by Gunnar Karlsson showed its ambition to become a culturally oriented production company, and CCP games is focusing on the on-line computer games market with *EVE*. Two individuals working at CCP responded to our survey. Skulína Kjartansdóttir is the quality assurance manager of the *EVE* on-line game; she has experience in the international computer game production while also being an industrial designer and sculptor as well. She also teaches courses at the Art Academy. The technical director of CCP, Torfi Ólafsson, used to work for Oz and has participated in projects such as the interactive installation *At* and the virtual *van Gogh Museum*.

One more artist remains to be mentioned, Birgitta Jonsdóttir, the poet and publisher who organized the Iceland's first on-line event ever, *Craters on the Moon*. Arnfinnur Einarsson took part in that project among other visual artists, poets and musicians. Birgitta is a writer who has explored and exploited the possibilities of the net in all its dimensions since the mid-nineties. For her, the net represents a way to ignore geographical distances and borders and to become part of an international community of poets, writers and artists. She's the only one of the respondents with no formal education and can be considered a autodidact in all the fields she practices.

Hannes Sigurdsson, the curator and coordinator of *At*, the interactive installation shown at the National Gallery in the spring 2000 (Hannes is now director of the Museum of Art in Akureyri) and Ingileif Thorlacius, museum pedagogue and project manager of Café 9 in

Reykjavik represent two projects which are, with *Craters on the Moon*, unique events in the short and fragmented history of Icelandic media culture. These contributions are representative for Iceland in the sense that they remained isolated experiments that did not generate any further work in the new media field.

At the moment only one association in Iceland is promoting the electronic arts and new media. **Lorna** was founded in march 2002 by three artists, Ragnar Helgi Ólafsson, Julie Coadou and Haraldur Karlsson and two theorists, Margrét Elísabet Ólafsdóttir and Halldór Björn Runólfsson. The aim of the association is to organize events and build up a platform for actors working with new media.

historical background

Individual works with electronic media have been realized in Iceland since late seventies even though the use of electronic medium never became a common practice.. The only Icelandic artist who has been exploring the electronics for years is Finnbogi Petursson. When the internet came to Iceland evoked a lot of enthusiasm in a small group of creative people. One of them was Birgitta Jonsdottir, who in 1995 “fell in love” with the Internet and started to think about *Craters on the Moon*, which as we saw was Iceland’s first on-line multimedia project. It was realized with lot of hard work from many of the artists later chosen for the *orb.is* exhibition as well as of technical help from companies that also supplied the equipment. The event took place during the Reykjavik Art Festival in 1996 and its website became a big success. Four years later, two other big media projects became reality. These were *At* and the *Café 9*. The latter was initiated by the nine cultural cities of Europe for the year 2000 and it took place both locally and on line. Ingileif Thorlacius, the Icelandic coordinator, confirms that the project grew huge and difficult to manage, but she was very satisfied with the Icelandic contribution, the artists’ performances as well as the enthusiasm of the involved students. The interactive installation *At* represents a different project which involved the collaboration of a group of visual artists, a designer and the technicians of Oz that worked together for months. *At* was initiated and coordinated by the curator Hannes Sigursson and it too was realized in the Reykjavik Cultural City of Europe 2000 programme, which seems to explain why both projects managed to get public funding. They can be said to be the only multimedia art projects so far realized through public funding in Iceland, as far as our research indicates.

When *At* was shown at the National Gallery in Spring 2000, Bragi Halldórsson curated the web art exhibition *orb.is* for another room of the museum. *Orb.is* was an off-line exhibition, where almost all net art works ever made in Iceland until the date were shown on computers and projected on screens. Bragi did not show his own work, even though he was among the first artists to use the web and have a personal at *this.is*, a server administered by Guðmundur Ragnar Guðmundsson who has made an important contribution to Icelandic net.art culture by introducing the service. *This.is* still hosts the sites of artists like Birgitta Jonsdottir, Bragi, Páll Thayer, Laura Valentino and many others including the site of the association Lorna. About seven authors showed works on the *orb.is* exhibition, including Egill Saebjörnsson, Petur Örn and Maria Pétursdóttir and Baldur Helgason, a graphic designer living in New

York, Krístrún Gunnarsdóttir who is studying philosophy in the United States and has been involved with the CTHEORY on-line magazine, Katrín Sigurdardóttir is another artist who also lives and works in New York.

In the Summer of 1998 Bragi and Maria Pétursdóttir opened a gallery space that was run for one season. They organized a series of exhibitions based on collaboration between two visual artists. The works were simultaneously produced by Bragi for a CD-Rom the public could consult in the gallery and buy. This is the first artistic CD-Rom made in Iceland. In Autumn 2002 the Living Art Museum published its first CD-Rom catalogue.

dreaming about a new media lab

The idea of opening a multimedia center or workshop in Iceland was first pronounced in early 1990's by the American artist John Hopkins who was teaching at the Art and Craft School in Reykjavik at the time. He presented the idea to different authorities but did not get any positive reactions. During late 90's, Katrín Sigurdardóttir and Pétur Örn Fridriksson worked hard on a similar project, with some positive response. They got grants from the Ministry of Education, Science and Culture to present the idea in a conference of the Baltic countries but nothing more came out of it. It was suggested at one point that the center might be associated to the Reykjavik Living Art Museum's project to open a residency for foreign artists. When Lorna contacted the Ministry of Culture to present its plan for a media lab which was well received in the "Upp úr skúffunum" or "Out of the drawers" competition of January 2002, they were told that the **Living Art Museum** was already working on it. When Lorna contacted the Living Art Museum which had recently invested in a new building they heard that the museum was not getting any support to make the lab a reality. Actually the Living Art Museum receives public funds to maintain the building and a minimum administrative staff but the funding is not sufficient for projects let alone for opening a residency.

The multimedia center project initiated by Katrín Sigurdardóttir, **Takki** became an exhibition at the Living Art Museum. Takki included a temporary net art exhibition of 1998/1999 and an email list that has been moderated by Katrín. Since last year Haraldur Karlsson has been responsible for the list and its most active member. Haraldur is also one of the most active media artists in Iceland, with very good contacts with multimedia centers and associations in Holland like the STEIM, Waag and Montevideo. Haraldur is working on a big project on the solar system but he also appears regularly in local events as a Video Jockey attached to sensors. Haraldur is also a teacher at the Academy of Arts in Reykjavik where he has worked hard to build up a media studio. Until recently, he was the only teacher working in this field, but now he works in close collaboration with the electronic musician Hilmar Thordarson. Together they are contributing to a real possibility for art students to work with new media. Until now, their work hasn't been related to the graphic design department of which makes use of computers for both paper and screen design. The best known screen design in Iceland is probably the adobe based magazine www.egillhardar.com and the frozen.com design magazine that's also published online.

cultural institutions and new media

The Living Art Museum is the only museum in Iceland that has shown real interest in new media. Neither the National Art Gallery nor Reykjavik Museum of Art, which hosted Café 9 can be considered as institutions with interest in new media. One reason could well be that both Café 9 and the At were considered expensive and complicated experiments that did not appeal to the larger public. Instead of providing an encouraging example, the grandeur of the Café 9 seems to have intimidated the Reykjavik Art Museum which otherwise has been open to new propositions and innovative in its use of new media for educational purposes.

The new media ambitions of the National Gallery are limited to the digitalisation of the museums' collections which are now accessible to the public via an intranet. This policy of the museum is directly related to the governmental policy concerning the information society. So far, this policy has not seen art or creativity as contributing to the information society. A great effort has been done to buy equipment for schools and make the internet accessible for everyone, but creativity and critical discourse concerning new media and technology is more or less nonexistent, let alone the practice of new media art and culture.

funding

Iceland does not have a policy for funding art projects and artists don't get public money for projects. There is one fund for cultural projects called the Reykjavik Cultural fund, but instead of artistic projects its focus is on more general cultural projects. It also focuses on quantity and not quality, which is not to say that the funded projects are not of quality, but that funds are so scattered that each project only gets a very partial funding. In addition, the Ministry of Culture allows travel grants for artists that need to travel abroad.

project presentations from iceland

caterpillar

The *Caterpillar* is a animated short film based on a story written by Fridrik Erlingsson. The director of the film is Gunnar Karlsson, a well known artist that has both worked for publicity agencies and as illustrator for children's books. Both the characters and the environment of the Caterpillar as well as the direction of the film are realized by him.. As production house for the project Caoz made its realisation possible. The Caterpillar received two prices at the Edda film award in Iceland in 2002 and has already participated in many film festivals. The film was first realized for screenings but it's also available on DVD and is being developed to form a television series .

project name: the caterpillar
 period of time: 1996-2002
 what: digital animation film
 where: reykjavik
 initiator: gunnar karlsson and
 caoz
 funding: none
 url: <http://www.caoz.com>



eve

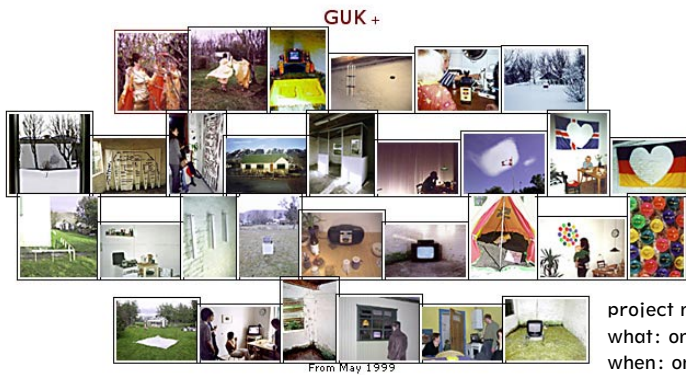
Eve is an on-line interactive multi-user game developed and produced by the CCP games. Eve is a real-time virtual world based on real world models. Each player chooses a customisable character for whom he/she is responsible for during the game. *Eve* has been period of user testingsince 2002and the game is supposed to be released in March 2003.



project name: eve
 what: on-line multi-user game
 when: 1999-2003
 where: reykjavik
 initiator: ccp games
 funding: none
 url: <http://ccpgames.com>

guk

The GUK is a gallery in three cities - Selfoss, Aarhus, and Hamburg. Each exhibition in the gallery is opened simultaneously in the three physical places that come together in the virtual gallery Guk on the internet. The exhibition that takes place on the net can either include images from all three places, or it can become the fourth space.



project name: gallery guk
 what: on-line gallery
 when: on going since 1998.
 where: selfoss, iceland, aarhus,
 danmark, hamburg, germany
 initiator: hlynur hallsson
 url: <http://www.simnet.is/guk>

key findings and proposals for iceland

findings

New Media culture has had difficulties in establishing itself which is why interesting actors and works in the field are hard to find. Companies that were created only a few years ago don't exist any more, with rare exceptions. Most companies that work in multimedia are oriented towards services and not cultural production.

The few existing cultural production companies are not receiving any support to develop their products. This means that the products go through a very long and elaborate development phase before they can be released. The *Caterpillar* is a good example - it took years of work before final editing.

Individual artistic productions and projects are not receiving any funding (or weren't until recently that Páll Thayer got some project funding).. Funding for artistic projects doesn't exist, but it is possible for the artists to apply for travel grants. The lack of funding and facilities does not encourage artists to work with new media.

The works of new media artists are rarely exhibited in Iceland. Better opportunities are offered abroad, where the artists have good contacts with institutions, galleries and curators. Icelandic curators (museum directors) seem to be afraid to exhibit new media work, partly because museums don't have the necessary equipment. The government and local funding to museums (the principal exhibition halls) is not in proportion with the needs of exhibiting site specific art or new media work.

Not all artists using new media tools have the needed technical skills or access to tools and technical assistance. Besides funding, there is a very strong need for a place that could provide production facilities and information on the field.

There are a lot of courses offered in Iceland on how to use software, but hardly any education is focused on form, context and content. This may explain why the existing production companies are run by or have employees with artistic background. A good knowledge of visual arts and culture is important in the development of new media production and combined with technical skill it seems to be a key to survival in the field.

The cultural institutions haven't recognized the creative possibilities of new media and its impact on the artists and culture. As theoretical and critical reflection is lacking, there is a lot of confusion about new media culture in general. This confusion was reflected in the Cultural ministry's policy for the information society and in the role information technology should play in culture and education in the late nineties. The focus was on the tool (the computer and the internet) but not the content and the creative use of it. This missing link in the policy is not so surprising, considering that education on visual art and critical thinking have been neglected by the educational system. The electronic arts are an unknown domain, and even the young generations that have been brought up watching films on video and playing video

games are illiterate when it comes to criticising and analyzing (moving) images. This has undoubtedly an influence on the development of new media culture which has strong roots in the visual arts of still and moving images.

The young artists that saw the possibilities of new media and the Internet did not meet any understanding from authorities when it came to supporting projects or opening a Media Lab during the nineties. This discouraged the existing dynamics and led to a certain stagnation. The evolution of the field slowed down significantly after the Cultural year of 2000. This research showed that people are eager to see something happen and willing to take part in it.

The creation of the Association for Electronic Arts Lorna is the latest effort to bring the discussion on new media out into the open and it has had some success. Those who are really interested in working with new media move abroad and their experience and knowledge is not transmitted to the newcomers in the field. Connections and the transmission of knowledge between artists and cultural actors that live and work in Iceland and abroad could be assured by a center or a media lab.

proposals

Start up support and guidance for upcoming new media production companies like Caoz and CCPgames, aiming on the cultural industry. Research and development are important factors in new media production where they bring up new findings and innovations. Universities should also get financial support and consultancy to build up research in the field.

Create funding for local events and individual projects in order to make new media art more visible to the public.

Open a media lab for young and newly graduated artists, together with a residency for foreign artists. Exchanges with the Nordic and international art scene should not only consist of Icelandic artists going abroad, foreign artists should also be encouraged to come to Iceland. This would bring dynamics into the local scene and keep the Icelanders more active at home. The media lab should be independent and it could work closely with the Living Art Museum or be located within the Reykjavik "Knowledge Village", which might encourage collaboration between the arts, science and technology sectors.

The Media lab should be run by governmental funding with the possibility to apply for private funding for projects. The ministry of education, science and culture should not be the only one to support the media lab, it could also be sustained by the ministries of industry and transport. As the media lab would focus on artistic research, funding for special projects could be sought from the private sector. - The media lab should involve a board of specialists and collaborate with the education system by offering short courses.

It is urgent to assemble the different departments of the Academy of the Arts into one building. This would generate a dynamics that would also be reflected in new media culture which is based on the hybridisation of specialities. The Cinema school should also become a part of the Academy.

A new media department should be opened at the National Gallery of Iceland and make the museum fit to receive new media exhibitions.

Effective policies to encourage critical and theoretical discussions on art and culture including new media should be put in from primary school on. Literacy in visual and media culture needs be reinforced as well as the creative practice with new tools. Theoretical and historical courses should be developed at the Multimedia School.

Translation and publishing of the theory and history of visual art and new media should be encouraged. There is also a wide gap in the national research on visual arts that needs to be filled.

siri bjurwill and vanessa ware, sweden: unseen scenes

introduction

*"All over the world, enormous amounts of resources are invested in the development and use of new information and communication technologies. Still, the results often remain functionally, socially and aesthetically unsatisfactory. The development is technology-driven and seldom based on a deeper understanding of actual user situations and truly human needs. /.../ What is needed in the development and use of the most post modern of all media, information and communication technology, is not the frozen matter-of-factness of functionalism's true-to-form ideology in designing modern objects in steel and concrete, but a new content-based sensuality in designing meaningful interactive and virtual histories and environments. What is needed is not functionalism's utopian celebration of new technology, but a critical and creative aesthetic-technical approach to production that combines ICT (information and communication technology) with design, art, culture and society, and at the same time places the development of new media technology in its true, everyday cultural context of evolving ways of life, work and free time."*¹

Since the manifesto was written in the late nineties, after the fast development of information technology, the Industry of Experience (Upplevelseindustrin)² has been in target in Sweden. Today the producers and the consumers are talking about the *content of IT* instead of the *functionality of IT*. There are two key reasons why content production has become a big issue on the producers' agenda. Firstly, a customer does not buy or use a product or a service solely because of the technology per se but because of the content. Many webzines face this problem: only because you access to a medium does not mean you have a message. Secondly, since the techniques are relatively standardised for ICT products the producers use content to differentiate their products in order to stand the competition on the market. For instance, many companies within the mobile phone industry face this problem. Today, many put their hopes to professionals from the Industry of Experience who will, together with engineers and technicians, create the requested content. When the information age is a fact, and both the private and the public sector have invested time and funds in order to establish digital solutions it is in both sectors' interest that practitioners from the cultural field address the digital medium.

Parts of the media culture field are beginning to be recognised as a highly prosperous industry. For instance, in Malmö there are two associations initiated during the late 2002, addressing companies on the borderline between Telecom, Internet/IT, Media and Experience. M-town, one of these associations, says that:

"Already today one can see changes within Telecom, Internet/IT, Media and Experience as branches and a commencing integration of them all. These changes are now beginning to result in the establishment of a new branch, TIME. In TIME distributors as Digital-TV, Broadband and 3G meet a large amount of creators, artists, producers and suppliers who work with digital content, products

and services based on text, picture, sound and video. Other important actors in the new TIME-sector are suppliers of technology and development tools that render possibilities for production of digital services and content.”³

M-town, addressing companies in the TIME-sector (Telecom, Internet/IT, Media and Experience) will help its members handle new challenges and explore new possibilities that are about to be realised within the new sector. They support their members through the facilitation of co-operations and business, through marketing and by creating a regional dynamic innovation system (cluster) with focus on the TIME-sector. MINC, Malmö INCubator, is another association, giving support to, among others, small companies with high growth potential within branches like ICT, digital media, industry of experience. MINC offers its members i.e. office space, professional business development consultancy, financial consultancy, access to business-specific contact networks, customer-designed education.

As presented above there are, and there will be (according to the investors), an economically successful side to media cultural production and distribution. Nevertheless, the field is to the majority of its actors permeated by obstacles of different kinds. An industry that is pending while waiting for calculations for how to estimate the financial gains of media cultural productions: Unfamiliarity from both the business world and the creative sectors as to how to collaborate and communicate: Lack of adequate financial support from foundations that remain within the traditional categorisation of the arts. At present, the industry cannot afford to risk capital and the foundation structures are not re-defined to address the hybrid qualities particular for cross-disciplinary media cultural projects.

scope

The main purpose with the research was to, with the manifesto in the introduction as a starting point, investigate and present media culture activities and practitioners in Sweden. The selection of actors participating in the research has been sought out with a focus on creators in general and artists in particular. We aimed to investigate the different ways in which artists, through a critical and creative aesthetic-technical working method, indirectly or directly contribute to the stimulation of ICT development in Sweden. ‘Media culture’ will in this context be understood as a result of this activity.

Media culture is a concept that covers a wide area, maybe too wide to do the parts justice, thereby it is not possible to give an encompassing picture. Therefore, this report attempts to describe, by eliciting examples of projects in the borderland of art and ICT, where these projects take place, who runs them, how the projects are financed, where they are exhibited, and which organisations contribute to the development of media culture as a sector. The picture presented of Swedish media culture consists of examples of hybrid and multidisciplinary activities and projects concerning new media art, content production, distribution and R&D. Our ambition with this report is to give the reader a good introduction to a complex and highly interesting field.

history

the origin of the scene...

*"It would have been very difficult for me to do an experimental production like this in Great Britain. In Sweden there is a completely different cross-breed between artists and technicians."*⁴

Maureen Thomas describes above her experiences of working with Vala: The hyper movie, a co-production between the **Narrativity Studio** (Interactive Institute) and Cambridge University. What kind of milestones in the Swedish history makes multidisciplinary experiments easier in Sweden than in England?

Sweden has a long tradition of fruitful co-operation between technology and art, as well as a strong interest in new media, which was prominent in the art scene in the 60's. At that time, computer artists were often already established artists, brought together by their interest in technology and especially in media and communication issues. The work of these "digital pioneers" can be divided into the "abstract figurative" and the "transformational practical", the final physical product rarely being the primary goal. In order to have access to the required technology, some artists made contacts with universities and the business sector. For example, the artist Sture Johansson co-operated with technician Sten Kallin at IBM. Besides artistic activity they gave lectures on graphical visualisation of objects at IBM and developed new technical solutions. At Datasaab, Göran Sundqvist combined his work as system technician and programmer with sound and image experiments. He was active in the Stockholm-based **Fylkingen** Foundation, a central institution for production and stage performance. Fylkingen continues to present new music and intermedia art even today. The first digital studio, EMS (Electroacoustic Music in Sweden) was established in 1964.⁵

The avant-garde artists of the 60's expressed themselves with happenings consisting of music and theatre experiments, concrete poetry, and sound and image poems. Their art was characterised by their interest in technology and especially "new media: as device, motives and forms of distribution".⁶ Playful experiments and crossover activity followed in many areas; between the traditional art forms, mixed-media (traditional art forms mixed with new technologies and media), between stage and lounge, high and popular culture.

At the time, as today, no funding structures supported multidisciplinary projects. Apart from state scholarships (from e.g. Foundation for Technical Development and The Arts Grants Committee) and collaborations with the universities and the industry, it was personal networks and pure luck that determined which ideas would be realised.⁷

The visible ideas in contemporary media culture thus started taking shape already in the 60's, both through individual form and genre experiments and also by pushing boundaries on an institutional level. As we know, it was not only a time of aesthetic provocations and technology optimism, but also of social and political provocations that led to a changed consciousness about global politics and ideological issues. "The digital revolution of the 90's came to witness the completion of ideas born thirty years earlier".⁸ The political involvement raised a need to explore and develop new forms for mass communication and distribution, shortly put, new media.

...and the recent development

The digital revolution of the second half of the 90's gave birth to several organisations aiming to explore, promote, and reflect on the development of ICT, today permeating the whole society. These organisations can be divided into media labs, artist organisations, digital media workshops and companies. Artists, academics, technologists and entrepreneurs move among these organisations or looser associations. Sometimes these skills are found in one person but in most cases people with different competencies assemble around innovative projects.

Artists started to concentrate their interest in art and ICT by establishing organisations focused on new media. **Association for Temporary Art** (Stockholm) established in 1995, and **Art Node** (Stockholm) established in 1994, can be considered pioneers in the field. Along with these organisations an ongoing discussion was initiated on the development of ICT and the relation between art and ICT. The first project of the Association for Temporary Art (1996) was an art exhibition on the Internet with 20 artists and the same amount of companies and institutions from the IT sector.

These organisations function as forums for production, co-operation and discussion. The website of Art Node, for instance, connected visitors with the current Swedish and international art scene. They organised seminars, conferences, performances and discussions on art, philosophy and technology. Several events were broadcasted via the Internet. It can be noted in this context that discussions about media culture are not arranged often enough to fulfill the existing needs. Development seems to run faster than the efforts to establish, for instance, a shared vocabulary.

These organisations play an important part since they create alternative spaces for art that does not fit into the traditional art market (that mostly presupposes art works to be unique objects that can be bought and sold, thus showing little understanding of the inherent qualities of the new media genre). Other alternative spaces for new media can be found on the Internet, e.g. in the form of digital sound magazines like **SRc** (affiliated with the Swedish Radio) and **Laika** (independent), or **Splintermind**, an Internet portal for art and music produced exclusively in real time. These pioneers have a role in exploring and developing the use of digital media in content production. Splintermind, for instance, is also involved in the development of technology and working methods required for online distribution of sound and images, which they have done in co-operation with Telia among others.

All over the country, artist-run digital media workshops have been established, functioning as meeting and working places for artists, offering knowledge, software and hardware at reasonable costs. **CRAC** (Creative Room for Art and Computing), is an artist-run digital media workshop in Stockholm, it was founded in 1997 under the supervision of some of Sweden's most prominent artists in the new media area. The significance of these workshops should not to be underestimated. Many of the contemporary art works we see exhibited in domestic and international art spaces have been produced at CRAC, for instance. Another digital media workshop is **Nätverkstan Kultur Väst's** Digitala Bildverkstäder that has set up shop in Gothenburg, Malmö, Örebro and Luleå.

In 1998 the multidisciplinary research institute **Interactive Institute (II)** opened its doors for cross-disciplinary R&D focusing on IT and new media. The studios co-operate with higher education and the industry. Their work includes prototyping, applied research and seeking models for new collaboration forms with the industry and other agents. In the beginning II was formed around four studios. Today the institute consists of twelve studios that spread as a network throughout the country, the latest ones having been founded in close co-operation with local communities and colleges of higher learning. II is fully owned by the Swedish Foundation for Strategic Research.

Large amounts of public funds are invested in starting multidisciplinary education programs that actively address students with different backgrounds. This means that technicians, artists etc. work together in educational environments concerned with both content and construction (Interaktiva medier at **Dramatiska Institutet** - University College of Film, Radio, Television and Theatre, New Media at **Royal University College of Fine Arts**, Art & Technology at **Chalmers University of Technology**).

contributions from the state

public support structures

A lot of personal effort is required from people wishing to work within media culture. When asked about the quality and availability of public funding for their work, the respondents of our survey replied that funds that meet their needs practically do not exist. Most respondents evaluate the funding structure to be insufficient or, at best, sufficient - but never good nor excellent. A closer look into the public funding system and crossover activity (professional consultancy, support for companies, production consultancy and support, further education, organisational activities, support for international projects, funding structures, information services, network sources) makes it obvious that there is a serious lack thereof in Sweden.

Professional consultancy, production consultancy and production support are some of the services most difficult to find in Sweden. It is obvious that there is a great need for an organisation that offers information and support, of the kind mentioned above, to actors within crossover activities. One of the problems today is that a lot of the information is tied to unofficial networks. Project participants possess the know-how and the information needed in a certain project. But, instead of being documented and made available to everyone, the information is tied to specific individuals and spread only through personal contacts and collaborations. In the absence of accurate public funding systems, networks and contexts become pivotal for anyone active in the field. Many actors express that they want to go beyond the powers of informal networks and contexts, but little support is given by public funds.

Also the companies in the sector suffer from lack of support structures. In these cases the problem often concerns distribution of alternative productions to the market (it is difficult to survive as an alternative producer in the computer game market, for instance). Furthermore, labour market support is ill suited for those aiming to combine artistic creation with economical gain. Nätverkstan Väst formulates the difficulties as follows:

ii: www.interactiveinstitute.se
 dramatiska institutet: www.draminst.se
 royal university college of fine arts: www.kkh.se
 chalmers university of technology: www.id.gu.se/info/arttech/

*"Cultural entrepreneurs risk falling between three political areas; cultural policy, labour market policy, and economic policy. Between culture and labour market politics there is an initiative concerning the work situation of cultural actors. Between cultural and industrial politics, however, there are few such initiatives. The lack of common vision affects the cultural entrepreneur in two ways; it is difficult to receive cultural support since, being an entrepreneur, s/he risks to be viewed as "commercial", and it is difficult to receive company support since it is not suited for the special conditions of the cultural sector. Being an entrepreneur s/he has by definition cut himself/herself off from the reach of labour market policy measures."*⁹

mono-disciplinary funds and cross-disciplinary projects

In Sweden there are not enough foundations that give financial support to artist-run activities. The most important foundations enabling media cultural activity in Sweden are:

The Foundation Culture of the Future (Stiftelsen Framtidens Kultur (FK)) whose aim is to promote an active cultural life by financing long-term and innovative cultural projects.

Visual Arts Fund (Sveriges bildkonstnärsfond) whose aim is to support both the possibilities of individual artists to continue working with art and their goal to experiment and develop artistic means of expression.

The Knowledge Foundation (Stiftelsen för Kunskap och Kompetensutveckling (KKS)) whose aim is to strengthen the competitiveness and growth of Sweden through development of knowledge and competence. The leading idea in their work is to encourage crossover encounters to inspire people to think in new ways and develop new knowledge.

Swedish Foundation for Strategic Research (Stiftelsen för Strategisk Forskning (SSF)) whose aim is to support research in natural science, technology and medicine.

The Bank of Sweden Tercentenary Foundation (Riksbankens Jubileumsfond (RJ)) whose aim is to support scientific research by financing individual researchers or research groups.

Current funding structure prioritises the project form, which has enabled the start-up of many interesting projects in the last few years, offering artists the possibility to develop or explore ICT together with, or without, technicians. The project allowances have also enabled conferences and workshops, which, by bringing people together, have in turn contributed to the ongoing definition and development of the sector.

Art foundations use a traditional classification of the culture fields, and hence, do not separate between, the often more costly, new media art projects and other art projects. One problem with the existing funding system, identified by several respondents, is that it is not designed for cross-disciplinary projects. In order to receive funding, the artists are forced to modify their projects to correspond to the foundations' aims and categorisations of fields (pedagogical, technical or scientific). Even established R&D groups like the Smart studio (II) have difficulties applying for the funding of hybrid projects. The foundations' aim and focus determine what is developed, and it is not always in line with the artists' goals.

In projects supported by foundations with technical or scientific focus, another problem

takes shape, that of defining when the project is finished and supposed to end. Since the projects within media culture are based on crossover research that explores artistic expression and technical possibilities, both aspects should be regarded as equally important. There is thus a need for the foundations to have two criteria for the projects: both the technical and artistic goals must be reached. Implementing these criteria would render the co-operation of people from different areas more equal and help all participants to achieve their goals.

Apart from the absence of a functioning support system respondents feel that their aim to establish media culture as an independent sector is met with resistance due to the lack of activity allowances and, from cultural politics in general, a long-term thinking. In the middle of the 90's a number of artists in Stockholm took the initiative to create meeting places (Art Node), production locations (CRAC) and distribution channels (Splintermind/BeeOff) for media cultural activities. The initiative was granted start-up and development funds from FK, The Arts Grants Committee (Konstnärsnämnden) and the Knowledge foundation (KKS) among others. The projects were considered important for the development of Swedish cultural scene and crossover activity. In autumn 2002 Art Node was closed due to lack of funds. At the moment the future looks unclear for CRAC as well, their budget for 2003 being insufficient. Splintermind/BeeOff is facing a similar situation. Media cultural organisations are facing a problematic situation. No funding is granted for their activities, but their survival depends on financial support as long as no solutions are found regarding income-generating methods (distribution channels for non-object-related art or offering digital technology to artists). In autumn 2002 FK gave an allowance of 1 500 000 SEK to Electrohype in Malmö for building the first centre for computer-based and high-tech art in Sweden. New project funds, new geographical location, but the same goal: trying to establish and support media cultural activity in Sweden.

networking & co-operation

on the agenda: co-operation between art and r&d

There are several fruitful encounters between art and technology, artists and technicians. Groundbreaking concepts are rarely based on standard solutions but encompass the study of new possibilities, which calls for mutual trust and understanding among the participants. Mikael Lundberg, artist-in-residence at Chalmers University of Technology in Gothenburg describes the co-operation as follows:

*"Usually I have an embryonic idea when I come here. /.../ Often I don't have a clue about how my idea will be realised, not even whether it will be accepted. Ideas also pop up during meetings with researchers and students. If I receive positive feedback, we create something together and come up with a good technical solution."*¹⁰

In meetings between technicians and artists, the technicians must use a language other than the terminology of the profession to formulate their knowledge, which can open up new ways of thinking and understanding technology. Finding a common language is essential

for the co-operation to function. Smart studio (II) brings together architects, programmers, artists, industrial designers and behavioural scientists. Getting to know each other has been time consuming, however, the different professional groups must first understand each other's possibilities to consequently benefit from one another for the common purpose.

The need for or interest in each other's knowledge often drives co-operation. One example is artist Ann Rosén who assembled a group of researchers from II and colleges of higher learning to work on the *Silent Sound Sculpture* project. The concept, creating a sphere of silence in the middle of a noisy environment, requires new technology to be developed. As a result, Ann Rosén has become project leader of a development project.

no network, no work?

A lot of energy is invested by the Interactive Institute's studios, in establishing contacts and keeping their eyes open for potential partners. The studios have different focus, but most of them maintain symbiotic contacts with colleges of higher learning and universities. II reaches out to Swedish and, in some cases, also international companies. The studios do a lot of co-operation around concepts that demand high-tech competence. A special partner is **CID (Centre for user-oriented IT-design)** at the Royal Institute of Technology in Stockholm.

Artist-run organisations function as platforms for new forms of collaboration. CRAC, for example, occasionally acts as an unofficial contact mediator when approached regarding web projects and similar. It is not unusual that artists have their own companies through which they take design (illustration, 3D graphics, animation) and web assignments. Innovative work in a commercial context (meaning anything from media lab at Ericsson, museums and cultural institutions to the local flower shop) requires understanding from the customer.

Networks are a prerequisite for multidisciplinary work, which is to be seen especially in projects conducted at universities and colleges of higher learning. 'Skiften' (Shifts) is a **K3 (Art, Communication and Culture)** project at Malmö University that has been going on for five years. Digital and interactive art forms have been developed for instance in collaborations between Interactive Institute's research section, international artist exchange of IASPIS (International Studio Program in Sweden) and students at K3. This kind of co-operation contributes significantly to the building of new networks.

context & content

Starting with the manifesto from 'Skiften' (see introduction) we have examined various artist-run projects and organisations conducted or active in the last few years (1998-2002). Projects born through encounters between ICT and artists can result in a variety of forms and ideas and this is one of the strengths of media culture. In order to do justice to the variety we have gathered here examples of projects reflecting this variation. Let the parts speak for the whole.

conferences and seminars

Many media culture projects presented here are results from encounters between artists and professionals from the technical field. Coming from different backgrounds, the project participants have their own established vocabularies and methodologies. Arranging these encounters, and making them fruitful, requires efforts from all participants. As discussed earlier, conferences, seminars and projects are often organised with the purpose of creating common platforms or furthering development. It is not unusual that professional or students from different disciplines meet around topics like "How are concepts defined in different research traditions?" Neither is it uncommon for different artists to discuss in the same manner i.e. by posing the question "how do we interpret new concepts of media culture differently from one another?"

At **Electrohype** 2002 in Malmö, artists assembled to discuss the theme: "Art and Software - Software as Art" and form a common vocabulary around the subject. The conferences assembled about one hundred and twenty artists, theorists and critics from Sweden and Denmark. Events of this kind offer a good occasion to both establish and expand networks.

Conferences and seminars are usually initiated by the academic world or by the organisations themselves, e.g. Interactive Institute, Association for Contemporary Art, Nätverkstan. The lecture series of "Skiften" (1998-2002) at K3 in Malmö was organised with the aim of giving a theoretical and knowledge-based background to the changes in time, art and communication. Examples of these lectures include 'The Language of New Media' by Lev Manovich (Professor, Visual Arts Department, University of California, San Diego) and 'Games People Play' by Emma Westecott (Game Designer and director of The Zero-game studio, II, Visby). For these kinds of projects, funding is available from EU, Nordic, national and local funds.

happenings & events

IT and new media are part of everyday life for many people today, even more so for the younger generation. In the bigger cities of Sweden, a number of media culture projects are integrated into happenings and events directed to younger audiences. For example Kulturhuset in Stockholm hosts a unique project series called 'After shopping' consisting of exhibitions and clubs that promote non-object-related art. These happenings and events are often organised in conjunction with conferences and festivals and are popular among younger people. Despite the success, there are still few clubs integrating media cultural projects in their concepts.

Happenings and events are usually initiated and organised by independent actors or organisations, and funded by national or local foundations or by strategic partners.

art works and productions

"It is our knowledge of automatization that has made computers come true. However, and the digital paradox is the fact that these self-operating systems also force us to continuously de-familiarize or program. In a narrow sense this means to describe, in a broader sense to relate to a course of events,

in a rational sense to control, in an artistic sense to explore at the limits of causality. The program is also what brings digital art closer to the performative than the representative, answering to the desire of staging, of manipulating, of transgressing.”¹¹

Several artists explore and even play with the computer's inherent logic in order to raise questions about new technology and its implications for individuals and society. One example of this is *Hellhunt* by Thomas Broomé, latest screening at Electrohype 2002. This type of interactive art is usually distributed via Internet art sites (e.g. **DIAN**, **The Pineapple Room**) or shown at galleries and art halls. *Hellhunt* was developed in collaboration with technicians and programmers at II's Smart studio.

Another approach is to address computer environments associated to certain sets of rules and values. One example of a successful artist working in this way is Magnus Wallin who in several animations refers to the "belligerent and elitist" computer game environments in order to comment on and shake the conventions. His latest production *Solo + Physical Sightseeing*, was shown during the autumn 2002 at Malmö Konsthall and in the beginning of year 2003 at Tensta Konsthall (Stockholm). The computer animation *Limbo* has been rendered at Infobloom (artist-run company with competence in digital film production and game design) in Malmö and edited, sound-mixed and mixed at Film in Skåne.

Several artists use the computer's capacity to create continuous works. One example is *Hundra sällskap* ('Hundred Companions'), a fully automated theatre. The sculptures in the project are not intended for exhibition at traditional art institutions, but to be activated in public spaces, for instance, at Swedish Embassies abroad. *Hundra sällskap* has been developed in co-operation between theatre director Karl Duner, an artist and a number of master's students at The Royal Institute of Technology (KTH) in Stockholm.

Another ongoing project of interest is *Avatopia*, a collaboration between the Swedish television, the Animation house in Eksjö, Interactive Institute, Malmö University (K3) and the Youth Council in Växjö. The aim of the project is to create an opinion-forming virtual community of non-violent societal action for young people. The project includes an avatar world, created with a number of custom-designed tools enabling collective narration and social interaction. *Avatopia* will be presented in different media, including TV and the Internet.

actors about themselves

The information gathered on the self-image of media culture actors is too scarce to draw any definitive conclusions upon. However, some clear tendencies can be discerned regarding their skills. Practitioners of the media culture field are typically entrepreneurs and visionaries. They are highly educated and often have close contacts with academia. Many of the artists and co-owners hold responsible positions in artist-run, active media culture organisations. Nearly all actors view artistic quality and creative problem solving as their strongest assets. They also consider themselves competent in multimedia, having no difficulty in finding possibilities within new technologies. Their weaknesses lie in business planning as well as juridical and contract-related issues.

conclusion

In Sweden universities and the Interactive Institute provides meetingplaces for projects transgressing art and ICT. During this research it has become clear that it is almost exclusively the artists themselves, or people from the culture field, who initiate independent media culture projects. They thus contribute greatly to the expansion of boundaries within the sector as to working methods, forms of co-operation etc.

In the middle of the 90's the artists were active and committed to push the borders and build up support structures for their work, which they also often received support for by cultural and technical foundations. After some years of hard work the support is gone and thus the pioneers' voices risk being muffled. The project form is prioritised and funding is granted for various projects by different instances in Sweden. While new projects are set up in one part of the country, the lack of support and allowances for activities forces others to close down elsewhere. Many of those previously active stay on hold, waiting to receive response from the decision-makers. The lack of continuity as to distribution channels (i.e. exhibition forums) and the lack of public information resources gathering and distributing information about the field, puts the field in the dark and the innovative and promising scene remains unseen.

Translation: Tiina Porthan

notes

¹ Quote from "Ett digitalt Bauhaus för det tiugoförsta århundradet", K3, Malmö University.

² The experience industry was defined in 1999 by the Knowledge foundation (KKS) as a very significant field of growth (the Swedish experience industry is close to nine percent of GNP but lacks many of the prerequisites for development the rest of the industry enjoys) and initiated a five-year project aimed at raising the esteem of Sweden through experience industry, into which they would invest sixty million crowns during 2000-2004. The foundation defines experience industry as "consisting of 13 different sub-sectors with the common trait of producing and/or supplying experiences". The thirteen sub-sectors are: Architecture, Computer/TV games, Design, Film, Literary activity and publishing, Art (image, photo, animation), Media (tv/radio/print media), Fashion, Music, PR/Communication/Advertising, Stage art (theatre, standup comedy, dance), Tourism (food, museums, nature, amusement parks, events) and Education/Edutainment.

³ www.m-town.nu, 2003-02-24

⁴ Rubin, Birgitta (001028) in Dagens Nyheter

⁵ Svensson, Gary (2000).

⁶ Nylén, Leif (1998).

⁷ Svensson 2000.

⁸ Ibid.

⁹ Karlsson, David, Lekvall, Lotta (2002).

¹⁰ Kerstin Törsäter (2002).

¹¹ Maria Hellström (2002).

swedish project presentations

electrohype 2002 - exhibition and conference on software art

The Electrohype 2002 event laid the cornerstone for the first Nordic biennial for computer-based and high technological art. The exhibition presented a wide range of computer-based art works, created by 17 different Nordic and international artists and artist groups. Electrohype organized a two-day conference with the theme 'Art and software - software as art'. The conference involved presentations and panel discussions, where artists who write their own software, artists working close to programmers as well as theorists that closely follow developments in computer-based art shared their views. The questions addressed included: What are the possibilities and limitations related to standard software as an artistic tool? How does the transition between artist and software and between software and audience affect the artistic content? What does the process of creating artistic software look like? What lies in the future for the development of software as an art object? Can software art change our self-perception in relationship to the interplay between hardware, software and computer networks?

project name: electrohype 2002
 what: festival for computer-based art
 when: october 2002
 where: malmö konsthall,
 carolinahallen, rooseum
 initiator: electrohype
 funding: malmö kulturförvaltning,
 framtidens kultur, nordiska
 kulturfonden, kultur skåne, british
 council
 url: <http://www.electrohype.org>



ellen roed's feedback at electrohype 2002

after shopping - 100% telephone art

After shopping is a forum for the Swedish art scene's practitioners who work with concepts, performance, music, design and happenings. The name After shopping connotes two things: the event takes place on Saturday afternoons, after a possible shopping round; but it also refers to the fact that the presented art forms are difficult to categorise or sell – immaterial contemporary art has to be experienced on site. *100% Telephone Art* - an After Shopping event dedicated to mobile phones was realised in collaboration with

Nursery (non-profit association promoting experimental music and art). For 12 hours, about twenty artists communicated with their audience with the various modes of mobile communication: sms, ring tones and sounds, dialogue, visuals – the experiences ranging from personal and intimate to collective.

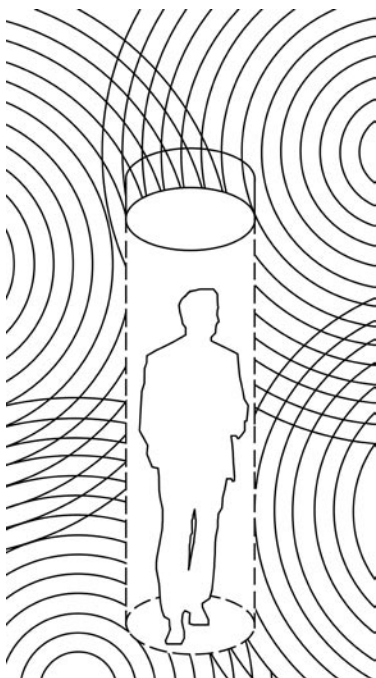


project name: 100% telephone art – after shopping
 what: art and music event using mobile phones
 when: 12 hours in august 2002
 where: kulturhuset, stockholm
 initiator: nursery, after shopping
 funding: ticket sales, kulturhuset
 url: <http://www.kulturhuset.stockholm.se/default.asp>

silent sounds – an art-science-technology collaboration

"Tyst ljudskulptur" – Silent sound sculpture – is a project which unites artistic form, scientific research and technical development. The idea is to create a silent zone, a local silence for public space. The initiator of the project, artist Ann Rosén uses site-specific sounds as material for her sculpture, taking out noises and designing the piece in 3-dimensional sound environment to underline the contrast with ambient sounds and the silent zone. In this project it is the artist's vision that guides research and development. The process of innovation and the emerging collaboration methods will contribute to a better understanding of artistic and inter-disciplinary work. The technical development,

realised by Sweden's leading experts has potetials for application in creating better sound environments for public meeting places.



project name: silent sound sculpture
 what: art-science-technology collaboration
 project
 when: 2001- 2003
 where: stockholm
 initiator: ann rosén, in collaboration with: cid,
 centre for user oriented it-design, nada royal
 technical university stockholm, institutionen
 för telekommunikation och signalbehandling,
 blekinge tekniska högskola, interactive institute
 funding: stiftelsen riksbankens jubileumsfond,
 stiftelsen framtiden kultur
 url: <http://cid.nada.kth.se/if/#silent>

avatopia - cross-media environment for opinion building

Together with Swedish Television SVT in Växjö, Interactive Institute's Narrativity Studio in Malmö and the Eksjö Animation House – a centre for animation film – are developing a social virtual environment. The project aims at creating an opinion-building forum to encourage teenagers to engage in societal issues. The project integrates public service broadcasting with interactive media's capacities of collective storytelling. Avatopia develops (1) an avatar world with specifically tailored tools for collective storytelling and social action; (2) a daily TV programme; (3) a kernel group of teenagers who will act as pioneers in the 'virtual society' by establishing societal structures etc.

project name: avatopia
 what: an opinion forum for the youth
 combining tv programme and avatar world
 when: 2001-2003
 initiator: animationens hus, eksjö, in
 collaboration with sveriges television,
 interactive institute, malmö university,
 ungdomsrådet i växjö, högskolan i skövde
 financing: partners, ungdomsstyrelsen,
 stiftelsen framtidens kultur
 url: <http://www.animationenshus.eksjo.se/Avatopia/index.html>



key findings and proposals for sweden

findings

In order to carry out media cultural projects, actors tend to set up organisations (e.g. Electrohype, [a:t], Subbau networks, CRAC) and establish connections with other agents. Co-operation and networking is a key to success.

Many actors work toward creating a media culture scene through projects and organisations. This activity includes digital media workshops (giving access to locations, hardware and software tools to those interested in developing the field), distribution of works (the Net, exhibitions), seminars and lecture series.

Actors of the field can generally be described as highly educated entrepreneurs, selling their ideas and creating contexts for their work.

Actors of the field are multi-agents: very few are involved with only one project at a time. Many are connected with several contexts simultaneously, such as the Interactive Institute (II), a research institute, and CRAC, an artist-run organisation.

Nearly all actors view artistic quality and creative problem-solving as their strongest assets. They also consider themselves competent in multimedia, having no difficulty in finding possibilities within new technologies. Their weaknesses lie in business planning as well as juridical and contract-related issues.

The majority of the collaborations between actors are built on both unofficial and official contact networks. However, it is difficult to distinguish between personal and institutional connections since individuals are active in several contexts and naturally combine these contexts in their work. The networks are relatively small and are based on mutual interest and needs; this is not the equivalence of having a good overview of different actors of the field. Strategic partnerships, for instance, are rare.

The branch is young. Artist-run organisations have been established since 1994 and research labs and institutions, such as II, have been established in 1998 or later. II is established all over the country with cross-disciplinary R&D studios focusing on IT and new media cultural development. The studios co-operate with higher education and the industry. Their work includes prototyping, applied research and seeking models for new collaboration forms with the industry and other agents.

Large amounts of public funds are invested in starting multidisciplinary education programs that actively address students with different backgrounds. This means that technicians, artists etc. work together in educational environments concerned with both content and construction (Interaktiva medier at Dramatiska Institutet, University College of Film, Radio, Television and Theatre, New Media at Royal University College of Fine Arts, Art & Technology at Chalmers University of Technology).

Language is a prerequisite for continued activity. It is notable that actors lack a shared vocabulary: this concerns professionals from different areas as well as between (media culture) artists themselves.

There are no information sources about practitioners and their experiences. This means that actors have difficulties in gaining information about previous activities and thereby learn about best practices.

No established forum exists for media culture, where ongoing R&D and cultural productions could be presented to the interested public.

Funds are granted for projects, seminars and festivals but not for the organisations' continuous activities.

Existing funding structures are not designed for cross-disciplinary projects. Even established R&D groups like the Smart studio (II) have difficulties in applying for funding for hybrid projects. All actors find the funding structures of the foundations insufficient for their field of interest. For instance, the majority of the foundations use a traditional classification of the art disciplines, and hence, do not separate between, the often more costly, new media art projects and other art projects.

proposals

Establish an organisation, especially addressed to junior practitioners who wish to engage themselves in the media culture scene, to provide support and information about the field.

Put discourse and terminology for new media and content production on the agenda of educational programmes in interactive media related disciplines. Publish results in a journal.

Establish a touring scene to exhibit culturally driven media R&D and production. Let the public involve themselves in media culture development.

Establish a fund for media culture designed to meet the needs of crossbreeding and hybridity typical for culturally driven media projects and content development, thus avoiding the projects' forceful adaptation to old structures.

Establish an independent fund for artist projects in co-operation with research institutions or the industry thus supporting the artists' conditions for the project, simultaneously avoiding conflicts of interest within institutions and avoiding project funds from being engulfed by administrative structures.

Secure support for the continuous activity of independent organisations that promote or enable practitioner's work - Many nodes for diversity.

Secure distribution channels for small game companies and alternative productions for which the Net is not a sufficient channel.

minna tarkka, finland: manufacturing content?

contested contexts

In 2002, the Finnish field of new media culture could be described as hybrid in an 'organic' way: continuous cross-overs between art, research, technology development, design and commerce take place both on the individual and organisational levels. Most practitioners combine different modes of work – operating as freelancers, company CEOs, artist-researchers, activists or DJ/VJs in parallel, putting their work out to different target groups and audiences in a variety of contexts. The hybridity also involves a mixture of different economies, from selling ones expertise or landing commissions, through grants and startup support to a 'gift economy' of volunteer work and peer-to-peer cooperation.

The survey of Finnish actors realised in 2002 identified the importance of multi-tasking *node personalities*, who act as 'cultural intermediaries' in several ways, negotiating exchanges between culture and technology, consumers and producers, art and science. Instead of operating in, or from, *the margins*¹ these 'networkers' of media culture may be seen working at the *interfaces* of different sectors, whose discourses and practices they actively mix and combine. This hybridity and networking make the Finnish field of media culture a dynamic, productive and collaborative one: not too many clear-cut divisions or competitive positionings are evident between the actors.

But the interfacing activity is not an easy task: moving and working between the sectors is a work of translation, which requires constant 'tuning' of ones practice by adjusting arguments and project plans to make them fit the shifting contexts. Indeed it may be asked whether the celebrated flexibility and agility of the actors isn't partly also conditioned by structures of policy. Creative multi-tasking is probably the only way to survive in an environment defined by project-based funding and the changing trends of policy and industry.

In tune with global and European trends, also Finnish culture and media policies have attempted to reformulate the place of 'culture' at the turn of the millennium – in policy programmes tuned towards supporting *cultural industries* or *content production*. However, the elusive notions of 'culture' and 'content' as well as the attempt to re-engineer their relations with the 'market' and 'industry' have so far proved problematic. The 2002 survey also showed that the perspectives of policy-makers and practitioners are not easily reconciled; the differences in discourse are reflected in practice in several ways. Should content be produced with generic, market- or product-oriented ways, or should it be driven by the particularities of user and producer communities, with social and cultural innovation as driving force? There is thus no clear consensus on what constitutes 'content' and how it should be manufactured – but a contested terrain, where the production of media culture is contextualised in quite different ways depending on the vantage point.

media generations

The following historical overview follows a ‘generation’ structure sketched in a recent report of Finnish media art², extending it to cover also some trends in policy and software culture. In a sense, the history speaks of the eternal return of the ‘new’ in media, of a quick-paced sequence of technologies of production and delivery. But the changes do not follow from technology alone. Whereas artists have always been keen to research and question the experiential frameworks of new technologies, the different ‘generations’ of new media production are not technologically determined but reflect changes in society and the ‘art-culture’ system.³

Also the various media cultural organisations have born from very distinct historical and social moments that are grounded in the practices and policies of the field. Thus it is typical to find legitimisation tendencies simultaneous with an expansion to new contexts; while the embracing of new technologies is at times punctuated by low-tech or “retro-techno” movements. The history is one of hybridisation as well – generation by generation, the sectors of art/cultural production, hackers/engineers, design and commerce have grown closer together.

1985-90 audiovisual media and video art

The ‘pre-history’ of Finnish media culture can be discerned in the electronic art and technology scene of the 70’s happening group *Elonkorjaajat* and the art+tech group *Dimensio*. Among the forefathers of this field is Erkki Kurenniemi, whose subversive robotics and pioneering work in sensor and midi technologies have recently been celebrated in Mika Taanila’s documentary and retrospective performances at Kiasma.

Another pioneer, Mervi Deylitz-Kytösalmi made video pieces already in the late 70’s, but it is however around the mid-eighties that one can properly speak of Finnish *media art* as distinctive phenomenon. A sign of this was **MUU**, artist association for intermedia art, which was founded in 1987 to represent performance, installation, environmental, sound and video art, as well as “computer art” and “other, still unnamed art forms”. Symptomatically, MUU (‘other’) took a junk category for its brand name: by appropriating the last checkbox in grant application forms (visual/film/music/architecture/other; painting/sculpture/graphic art/other), MUU challenged the legitimacy of traditional guild-based art definitions while it simultaneously sought to legitimate interdisciplinarity and new media –based art forms.

In terms of media culture, the late 80’s were a time of audiovisual media and video art. The Kuopio video festival and Lahti AV biennial provided venues for experimental work while a dense network of local video workshops democratised video production across Finland. **AV-ark**, distribution archive for audiovisual art was founded by MUU in 1989 and it started distributing and screening both Finnish and international work. The support and funding programmes of **AVEK** (Promotion Centre for Audiovisual Culture) were launched in 1987; the first artist-run media companies were established, among them video artist Marikki Hakola’s Kroma productions.

The demo scene started to emerge among the 'Amiga generations', and some first network innovations, such as the Internet Relay Chat (IRC, Jarkko Oikarinen 1988) were introduced, even if known only to a fraction of artists, who were learning to use their Apple machines and PageMakers to produce catalogue layouts.

1990-1995 interactive multimedia and new media

During the first half of the 90's, the first academic departments and university-level curricula relating to "new media" were established – **Hypermedia lab** at Tampere University in 1992, **Media Lab** at the University of Art and Design Helsinki and **Media Studies** at University of Lapland's Faculty for the Arts in Rovaniemi. All of them signalled a cultural turn of technology in that they were established in the context of art and humanities faculties. Also several polytechnic-level education programmes in Art and Communication were planned and launched.

Continuing the operations of Kuopio video festival, the MUU media festival (MMF) started exhibiting interactive installations at Espoo Gallery Otso; curated by Erkki Huhtamo these shows often premiered cutting-edge work before they were presented in major international events such as Siggraph or Ars Electronica. Helsinki also became a node of the international electronic art community during the ISEA'94 symposium, the production of which worked to further strengthen both national and international collaborative networks.

Linus Torvalds introduced version (0.02) of LINUX in 1991; and the first **Assembly** demo party was organised in Helsinki in 1992. First new media companies were formed around multimedia production, and soon followed by web design companies. The interface became an object of artistic inquiry; and the first artist-produced CD-Rom, Marita Liulia's *Maire* was published in 1994.

In the early 90s, virtual reality was high on the agenda, often demonstrated in the context of MMF festivals. Broadband was available too, and used to some cultural experiments such as Paul Sermon's *Telematic dreaming*, a 'hole-in-space' event realised at the Finnish Telecom's TELE gallery. Powered by the university network FUNET, also the ISEA'94 sessions were webcasted live, while *Ambient City* radio, a temporary radio station narrowcasted electronic music genres during ISEA'94 and the ARS95 exhibition. Ambient City initiator Tommi Grönlund's cult record label **Sähkö** started publishing Pan Sonic and Jimi Tenor, who were to become famous on the international techno underground scene.

1995-2000 net culture and mobile commerce

Net culture was evidently there, to judge by the first UIAH Media Lab graduate works such as *Daisys Amazing Discoveries*, directed by Mika Tuomola (1996). In the second half of the 90s the key location of Finnish net culture was MUU. Directed by Tapio Mäkelä, MUU founded the MediaBase, which during 1995-97 organised several workshops and projects around network, sound and interactive art while supporting artists in production and engaging in international collaborations. However, due to the discontinuation of the 3-year-project funding, the MuuMediaBase could not operate on a full scale after 1998.

In terms of funding and policy, tentative gestures towards media culture were made from both the cultural wing (Arts Council's Media art working group 1995-96 and committee 1997-) and the technology wing (Technology Agency TEKES' National multimedia project 1995-97), while both wings concerted their efforts to start developing new *cultural industries*. Contrary to what could be expected in times of economic growth, cultural sponsorship or commissioned art work did not increase: instead of funding innovative projects, the giants of mobile business were interested in the visibilities offered by popular mass events. Most of the graduates from new media departments were recruited to companies where they produced web solutions and, with increasing speed towards the turn of the millennium, mobile games. Finland was advertised internationally as the place where 'the 21st century was in beta',⁴ a laboratory for the wireless information society. International journalists flocked to document the scene, and used the newly established centers of Lasipalatsi, Kiasma museum of contemporary art, and LUME as backdrops for their photo shoots.

Meanwhile, the artists used their networks to land international co-productions such as Tapio Mäkelä and Susanna Paasonen's *Hygeia Revisited* (1998), produced with Artec, London and Andy Best and Merja Puustinen's *Conversations with Angels* (1997), a co-production with Canada's Banff. Marita Liulia's *SOB* was rewarded at Prix Möbius International in 1998, Milla Moilanen received awards for her animations and Eija-Liisa Ahtila's installations gained increasing international recognition culminating in the Venice Biennale honorary mention 1999.

Another prize interestingly demonstrates the new hybridity of media culture: Linus Torvalds and LINUX received the ARS Electronica Prize for Net Excellence in 1999. The emerging 'software culture' was manifested by artist collective **katastro.fi**, established in 1998. Consisting mostly of programmers with background in the demo scene and day jobs in new media, katastro.fi provided the participants with a platform for realizing creative and socially engaged projects. The quick maturing of new media was felt in the educational institutions, where the first graduates entered the doctoral programmes while students entering the programmes already had experience from the industry.

2000- hybrid media culture and content creation

The Cultural capital year 2000 represented a turning point in many ways. Helsinki2000 co-produced several large-scale projects which made new media culture visible in various locations in the city and on the net, signalling a new sensibility towards the virtual, material and social places created by new media. During the same year, the F2F project – New media art from Finland – an exhibition presenting work by 10 artists – started its 2-year North American tour from Los Angeles; while the Viva Helsinki! exhibition at Barcelona's Sonar festival celebrated Finnish media in its diverse forms of media design, electronic art and music in 2002.

At the turn of the millennium, both artists and new media companies were thus busy with productions, which were more or less well funded. Simultaneously there was a growing concern for the sustainability of practices. The creatives in new media were increasingly burnt-out, first by the accelerating demand for growth and 'innovations', often backed up by venture

capital; then by the IT market crash and the subsequent plug-out of investments. The artists and cultural producers, on the other hand, were increasingly frustrated after several cycles of minimally-funded projects for innovative work. The scarcity of support for media art was in striking contrast to the international acclaim received by the artists. After huge investments in educating creative new media professionals, there was also a need to sustain and develop professional competences in the field.

These were some of the reasons that led to the founding of **m-cult**, association for media culture in 2000. The founders represented a group of professionals with a long experience in media culture, and m-cult set its objective to supporting the structures of the field by networked collaboration, providing information and lobbying. Supported by major grants from Cultural Foundation, and with research projects realised in ministry cooperation, m-cult aims at establishing a centre for research, development and production of new media culture by 2004.

In the policy sector, an inter-ministry **Content Creation project** was drafted into the government programme 2000-03, its aim being to raise the competitiveness of the Finnish content industry to the level of the national know-how in ICT. Unfortunately, the timing for the project was extremely bad – its aims of creating new opportunities for content and independent production companies were met by the crashing markets and the industry's unwillingness to invest in any new contents. Thus in early 2003, while the nation recovers from the 3G investments, the question still remains, who pays for digital content?

actors and agencies

education and research

In Finland, education in new media has probably affected the field's hybridity and pragmatic orientation, since it has mostly taken place in a *design context* on the university level, and a *production context* in the polytechnics.⁵ Thus the graduates from these institutions share a multi-contextual professional perspective, and experience of work in multi-disciplinary teams. The art academies, with the exception of Sibelius Academy's **Music and Technology** programme, have not systematically developed education in new media.

The polytechnic education in art and communication has received quite a lot of criticism, directed both at the quantity (too many students for a small job market) and the quality of education (too much stress on practical professional skills instead of innovative development). The need for continuing education and competence development for both professionals and educators has been felt on the field and confirmed in recent reports.

In their 10 years of operation, the university departments of new media have grown from small spearhead units to large departments. For example, the UIAH Media lab has turned into an independent faculty of 40 staff, well over 100 MA and doctoral students and several research projects in 2002. The orientation of education has constantly shifted from practical and productive skills towards conceptualizing and piloting new formats, and currently the new media departments can provide students with research& development oriented study projects and post-graduate research positions.

Still, most of the research and development of information technology, realized in collaboration with industry and funded by the National Technology Fund TEKES, takes place in Finland's large technology universities.⁶ New academic programmes and positions for media culture have however been established in humanities faculties in Turku and Tampere, and there is a growing tendency towards productive combinations of "fundamental" humanities research approaches (eg. media and cultural studies) with applied research into technology, represented for example by projects at the Hypermedia Lab or Rovaniemi's Media Studies.

cultural organisations and media centres

Finland is the promised country of associations, and putting up a registered association is the most usual way to become a 'legal personality' and start operating in the cultural field. The diversity of Finnish media culture organisations remains a strength, but it also indicates some weaknesses, such as the small economies of scale and the instability of development, which contribute to a situation where there is "a lot of activity, but it is spread very thinly".⁷

As an example, the 15-year history of MUU is full of new starts and discontinuities. MUU's operations have gone through several changes of emphasis; from a Beuysian 'everyman an artist' orientation through site-specific and installation to conceptual art; and after the period of new media orientation represented by MuuMediaBase, the current emphasis is on performance and video art. Of the over 300 members of MUU, most mention video as their medium (used eg. in installations and documenting performances), while only three were engaged in net-based art in 2002.⁸ Besides the shifting interests in the board, elected annually, also funding structures effected the splitting of MUU's original operations into smaller new associations. Both AV-ark and the MUU Media Festival were separated from MUU which rendered them autonomous in terms of funding, but on the other hand made all three associations weaker actors in terms of scope and policy development.

The legal form of association may also be taken by more community-like groups such as Katastro.fi, which has been very selective in its membership policy to secure integrity. Besides associations, the 'scene' of new media culture is increasingly populated by co-ops and looser collectives; temporary formations, projects, groups, 'disorganisations'.⁹ Moreover, the new media professionals are notorious for their resistance to form or join unions. One reason given to this is that the practitioners' solidarity is directed towards a smaller unit - the *team* - within the company than towards a more abstract notion of the professional community. This team spirit was also emphasised by the actors in the Finnish study who considered the collective mode work more central to their practice than the notion of individual 'author'.

However, the relationship between communities and networks on the one hand and individuals on the other is not without contradiction. Networks and communities¹⁰ are often depicted as utopian formations, but they have very pragmatic functions as well; exemplified by the cultivation of 'person brands' through networking and an instrumental approach to exchanges taking place within 'communities'. Informal networks may be instruments to transform cultural and social capital into economic capital, but in the field of media culture, economies are not

only traditionally profit-driven ones but also those based on exchange of services and peer recognition, the 'symbolic capital' indicated by notions of 'respect' and 'fame'.

Another controversial issue is the relation of networks to spaces and places, of which the new media co-operative **Aula** provides a good example. Established in 2001, the co-op opened a 'living room for the networked society' in the centre of Helsinki. Aula's vision was to provide its members a (wireless) space to enable an innovative osmosis of ideas between different subcultures by mixing "doing together" with "being together". After a year of operation – including seminars and smaller weekly events and discussions - Aula however had to close the space and continue as a web-based community. Several other organisations – from MUU to katastro.fi – have also experienced difficulties in maintaining spaces and considered options of giving up rooms or going completely virtual. On the other hand, small companies tend to form micro-clusters by establishing co-operatives which share facilities and other resources.

There is thus a remarkably weak 'centring tendency'¹¹ in Finnish new media culture – the actors remain small and no permanent media labs or centers have not yet emerged from the cultural sector. Even m-cult's objective to establish a centre for new media culture is directed towards a small or medium sized concept; and the plan is based on a model of networked research&development, which can be adjusted to different conditions and become realised in different partnerships and locations. This approach marks a difference to the national media centers established in the 1990's, which have been infrastructure-driven 'house' projects, exemplified by the LUME Media centre at the University of Art and Design, the largest ever investment in Finnish universities. LUME's digital facilities are cutting edge but they are too costly to rent for most independent producers; even for other universities. Moreover, the LUME model was based mostly on film production which is reflected in its spaces and the activities that are possible within the center.

Also the Northern Film and Media center **POEM**, has its main emphasis on film production, from where it reaches towards the mobile know-how represented by the 'silicon valley' of Oulu. To balance the concentration of new media creatives in the Helsinki area, regional centers of expertise have been established eg. in Rovaniemi (experience industry) and in Tampere, which has launched the **eTampere** project to become Europe's leading city in information society development.

venues and sites

In their planning phases, each of the national or local media centre initiatives – among them the Lasipalatsi media centre – has raised a lot of expectations amongst practitioners. An infrastructure for interactive, network and software based productions, cultural research and development of new media, is still missing.

Kiasma, the museum of contemporary art was one of the much awaited centers. Even though it could not fulfill all the expectations that were directed at it (such as providing a lab for new media production), Kiasma nevertheless remains the key venue for media art, with major international electronic art exhibitions (*Alien intelligence* 2000), solo installations and updates on the electronic scene such as the **Pixelache** event (2003) in its programme. Whereas

most other museums and galleries prefer to show easy-to-maintain DVD video installations, Kiasma has the infrastructure and tech support for showing interactive new media pieces. Kiasma also acts also as co-producer of projects and acquires media art to its collections.

The generations of media art are also reflected in the subsequent forms and orientations of the major Finnish festival. After its start as Kuopio Video Festival, the MUUMediaFestival, organised in Helsinki since 1990 shifted its focus to include interactive installations and MMF remained the key venue for new media culture for some time. After celebrating its 10th anniversary in 1998, MMF was discontinued and its operations were taken over in 2000 by the Avantofestival, which again instantiated a new profile; an emphasis on experimental music and film's marginal genres such as structuralist film, industrial noise and glitch art. Avanto and the more popularly profiled **Koneisto** festival for electronic music and arts have contributed to making Helsinki a hub of the European electronic music scene, with new spin off clubs and venues also at off-festival times.

Other festivals include AV-ark's annual **VIEW** Festival, which offers screenings of video art in various locations (including a local cable channel in 2002) and **MindTrek**, which includes a conference, an exhibition, and a multimedia competition. Also the Tampere Film Festival has included new media in its programme, most notably the **Micromovies** competition for short films aimed at mobile platforms.

As noted above, the sites on the web compete in importance with the physical locations and venues. For katastro.fi, their website is a major interface to Finnish and international audiences; m-cult started publishing the **m-cult.net** service before launching any plans for a physical site. There is a thick and quickly changing web of sites, ranging from subcultural and guild-like peer forae (**pingstate.nu** for web designers, **apukeittiö** for flash-makers) through alternative information channels (such as **VAI**, "Effective information bureau", the Finnish member of the Indymedia group) to more professionally oriented publications (**mediumi**, online journal for researchers and practitioners of media culture) and services such as **Re:**, a web forum for new media designers. The sites even take over some functions previously considered duties of the unions: besides providing information they may produce surveys on the emerging profession (re:search section at re:) and develop vocabularies and contexts to support production. A popular example is **pixoff.net**, which combines elements of community, publication and streaming channel for short films.

support and funding

In terms of international distribution and exchange, the Finnish Fund for Art Exchange **FRAME** and the Nordic Institute for Contemporary Art **NIFCA**, based in Helsinki have strongly contributed to exchanges and distribution of media art; while the dynamic Finnish institutes in London, Paris and Tokyo have produced culture and media presentations on a wider scale. Also **TEKES** has established 'bridgehead' posts in the software-intensive areas of America's West coast.

The main funding body for media culture is **AVEK**, which is reported by the producers to be the lifeblood of their practice. **AVEK** has programmes for distribution, professional

avanto: www.avantofestival.com
koneisto: www.koneisto.com
view: www.av-arkki.fi/english/view02.htm
mindtrek: www.mindtrek.org
micromovies: www.tamperefilmfestival.fi

m-cult.net: www.m-cult.net
pingstate: www.pingstate.nu
apukeittiö: www.apukeittio.com
vai: www.vaikuttava.net
mediumi: www.m-cult.net/mediumi

re: www.rekaksois.com
pixoff: www.pixoff.net
frame: www.frame-fund.fi
nifca: www.nifca.org

education, festivals, - and most importantly, experimental new media productions, which are usually supported when other funding (eg. from distributor – tv, museum, operator) has been secured. Currently AVEK's continuity is under threat. AVEK distributes funds arising from author's copyright entitlements for levies on blank video tapes, and while revenues from these sources declining, it is not certain whether a similar model could be extended to digital copy formats.

Besides AVEK, ear-marked funds for media art and culture are granted by the Arts Council's Media Art committee. The total of funding for media art and experimental new media productions is very small, appr. 500 000 euros in 2002. The sum can only cover a very partial funding of productions and small projects; in addition to which the older organisations receive annual support from the Ministry of Education and the City of Helsinki. In a time characterised by the downsizing of cultural subsidies, it is extremely hard to create funding for new cultural forms: the existing organisations and art fields are not giving up their acquired position, while even policy-makers seem, understandably, protective of those fields where workable funding schemes have been accomplished, such as film.

At the time of writing, the association of Independent producers SATU has proposed the setting up of DIGES, a product development fund for digital content within TEKES. While the fund would certainly enrich the TEKES portfolio - which so far has had almost non-existent opportunities for culturally driven development¹² - its concentration on market-driven development still leaves out the 'fundamental research' and creative aspects of most cultural productions.

practices and policies

In order to produce media culture or art projects in Finland, the legal form of company seems almost inevitable. Besides taxation issues, this is also due to main funding body AVEK's rules. Also the programmes of regional support¹³ as well as TEKES are tuned towards the support of companies and their focus is in the creation of new business. Perhaps ironically, many artists have used their individual artist grants (3 or 5-year subsidies granted by the Arts Council) as a kind of 'seed funding' to start up a company – a successful public-to-private conversion from the final days of the welfare state? But running a business requires one to learn quite a few new skills, which takes its toll on the creative work, and in the absence of culturally oriented managers often has to be done by the creatives themselves. Successful (rich at least in terms of learning experiences) artist-based companies include the Meetfactory, which became the first venture capital –backed company in the field (experiencing both the growth and the crash phases) and Medeia Ltd. by Marita Liulia, who after unsatisfactory distributor deals now sells her pieces from her own net store.

flexible specialisations?

The flexible specialisation of work and a shift to 'neo- or post-fordist' production model are often mentioned in analyses of the new cultural economies and job markets.¹⁴ Especially for the micro and SME companies, specialisation and competence development is however hard

to achieve while flexibility and short-term revenues remain an imperative. The companies report a constant 'dagger on the throat'; the hunt for commissions has proved incompatible with developing sustainability in the form of research or product development. Some of the most radical shifts in focus happened in the times of the '3G boom' when even companies with portfolios of high-quality work in 3-D real-time interactive environments had to shift to producing games for the small screens of mobile phones (!).

It has also been remarked that the currently celebrated flex-work actually institutionalises patterns that were always typical of women's (and immigrants') work: the permanently transitional work, based on temporary, part-time contracts is now rendered heroic of the new media lads' lifestyle.¹⁵ The free-lancing, self-employed mode of work makes every practitioner an isolated, mobile 'enterprise'; and this, together with the imperative of creativity, is the way also citizens in general are being conceptualized in current national strategies.¹⁶

A further interesting note can be made by gendered specialisation. Besides the more traditional sector based gendering (engineering and new media male-dominated, cultural and art sectors female dominated - including usability), another division of work seems to take place in Finnish media culture. The 'networkers' and spokespersons of new media culture have been mostly male (eg. Erkki Huhtamo, Tapio Mäkelä, Juha Huuskonen) whose extensive travels has resulted in an 'import' of international experts, whereas the organisations are often started and run by women. And the 'export' successes of Finnish media art's 'matri-archive'¹⁷ are phenomenal (Eija-Liisa Ahtila, Laura Beloff, Hanna Haaslahti, Marikki Hakola, Marita Liulia, Milla Moilanen, Heidi Tikka to name only some of the most visible).

looking for a dialogue

It took some time before media culture broke away from the category 'other' (MUU) and became an object for cultural policy. In 1995-96 the Arts Council of Finland hosted a working group for media art, with a wide representation of practitioners. The working group's memorandum emphasised the multidisciplinary nature of media art and proposed new media projects to be funded as part of the Arts Council's existing committee structure by securing new media expertise in each arts committee¹⁸. Consequently, a sub-committee was set up in 1997 to coordinate the proposals, but the model still grouped media art with so-called multi-arts (eg. circus and comics) which together with the scarce funds shows the still marginal position of the field.

Another report was realised in 2002, where the authors proposed a new committee dedicated to new media art, together with a strong increase of funding for individuals and organisations operating in the field.¹⁹ The report, based on a wider study of new media culture as *innovation environment*,²⁰ also placed a strong emphasis on culturally and socially driven research and development and proposed new forms of funding to account for this necessary element of new media production.

Since late 90's, policies of cultural industry and content creation have tended to model production in terms of a linear 'value chain', where the "results of creative processes are refined, packaged and distributed". This leads to a situation where policy and industry discourse often slips to address technical delivery *platforms* (onto which the content is packaged), while the

practitioners see their work in terms of *contexts* – social, cultural and experiential locations and processes. The survey and interviews of 2002 showed that the practitioners see their work as dealing with overall quality, risk-taking in content, communication and collaboration, and even a kind of digital craftsmanship.²¹

The difference in discourses has led to a situation where the support programmes, tuned for product and business development haven't been effective in reaching out to the innovative potentials of the field, whose practitioners even show a certain resistance towards the discourses represented by the programmes. Significantly enough, these latest policy programmes did not have cultural producers represented in their committees, which included mostly executives from museums, broadcasters, educational and funding institutions. Thus the development of a common language was not accelerated.

Many of the problems evidently relate to the 'new' in media culture. The art world now understands installations, but museums find it hard to grasp the environment – and process – like 'instantiations' typical of new media culture. In their search for generic applications, the fields of engineering and marketing still tend to neglect the singularities of user cultures. The field of traditional media such as broadcasting is only taking its first steps towards interactivity in its various forms of products and production processes.

A hybrid practice requires a hybrid politics – and the Content creation project has paved the way towards inter-ministry collaboration, as well as towards a wider participation in policy-making and governance.²² After several iterations, the fields of technology and culture thus seem to start converging; while the boundary-crossing work is not only the task of individuals, but becomes practiced through new hybrid organisations and partnerships.

notes

Cf. the Council of Europe report "In from the Margins" (1997) which argued for the centrality of culture and cultural policy in sustainable development.

² Mäkelä and Tarkka 2002; also Tarkka 2002.

³ Lury 1996.

⁴ Silberman 1999 in Wired.

⁵ Cf. Lisa Haskel's (1999) review of the hybrid art/design scenes of UK media culture.

⁶ In 2001, every third student in Finland was studying in engineering-related fields.

⁷ Quote from a practitioner describing the Helsinki new media 'scene' in Harris (2002).

⁸ The legitimation tendency of so-called 'MUU arts' was fulfilled when MUU gained membership of the Finnish Artists' Association alongside with the traditional Painter, Sculptor and Graphic artist unions.

⁹ Cf. Lash 2002.

¹⁰ Cf. Mäkelä (2002a) and Harris (2002).

¹¹ Cf. the discussion in the UK, Gillman 1999.

¹² Only the most successful games and community-based services have been considered eligible so far, but the new FENIX programme is looking also for other kinds of user-culture driven applications.

¹³ For example, the programmes coordinated by the Ministry of Trade and Industry and those run at the regional centers of expertise in New Media (Helsinki) and Experience industry (Rovaniemi).

¹⁴ Cf. Lury 1996; Robins and Webster 1999

¹⁵ Neyer 1998; see also Gill and Dodd.

¹⁶ Cf. SITRA's (2002) report on Finland 2015.

¹⁷ Tarkka 2002.

¹⁸ The Arts Council has committees for Architecture, Design, Film, Literature, Music, Photography and Visual Art.

¹⁹ Mäkelä and Tarkka 2002.

²⁰ Tarkka and Mäkelä 2002.

²¹ Besides different economies, the study (Tarkka and Mäkelä 2002) thus found several ways to address 'values'.

²² The Content creation project's strategy report for 2003-07 (2002) recommends, among other things, increased 'collaboration with the so-called third sector'.

project presentations from finland

f2f new media art from finland – touring exhibition

Organised by the New York-based Finnish Foundation for visual Arts, and curated by Juulia Kauste and Marko Tandefelt, the F2F New Media Art from Finland was perhaps the biggest "export project" of Finnish new media art. The exhibition presented work – mostly installations – by Laura Beloff, Andy Best and Merja Puustinen, Hanna Haaslahti, Juha Huuskonen, Marita Liulia, Teijo Pellinen, Kristian Simolin, Heidi Tikka and Tuomo Tammenpää – After its launch in Los Angeles in 2000, the exhibition toured North America – Washington, Toronto (2001), Montreal and New York (2002) – and received a lot of good press. Interest for further venues has been expressed from Europe and Japan for 2003.



f2f exhibition – a view from tuomo tammenpää's need installation

project name: f2f

what: touring exhibition of finnish media art

when: 2000-2002

where: los angeles, washington, toronto, montreal, new york

initiator: finnish foundation for the visual arts, new york

funding: ffvanyc, the finnish embassy at washington, sponsors

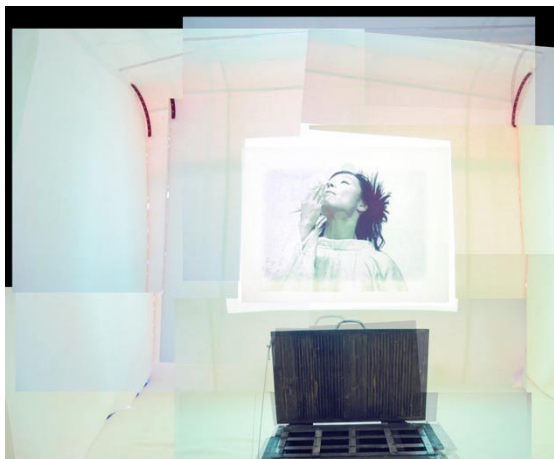
url: www.f2fmedia.net

crucible – studio for interactive storytelling

Crucible, the studio for 'digital alchemy' was initiated by Mika Tuomola, visiting artist at the University of Art and Design's Media Lab. Now a part of the LUME Media Centre, the studio aims to establish a new collaboration model for artists and engineers that produces multidisciplinary innovations and develops interesting cross-media production and content formats. Crucible pushes forward the development of truly engaging, emotionally and

intellectually rich interactive narrative forms that make use of the artistic and technological means in manipulating time and space. Crucible's productions so far include the *Myths for One* interactive installation; the studio also participates in the Media Lab educational programmes and research projects for technology development.

project name: crucible
 what: studio for artist-driven technology development in interactive content
 when: launched 2001
 where: helsinki, media centre lume
 initiator: mika tuomola, uiah media lab
 funding: ministry of education / content creation project, lume
 url: crucible.uiah.fi



habbohotel

Habbohotel is a virtual hotel on the internet – a visual ('2,5 dimensional') chat community originated Sampo Karjalainen and the team at Sulake Ltd. Launched in 2000 in Finland, the hotel became a success and was developed further in partnership with Habbo Ltd, based in London and has now localized versions running in Finland, UK, Switzerland and Japan.; with almost 3 million registered users. In Habbohotel, the participants assume an animated, customisable avatar ('habbo') and roam the jungle of public and private spaces of the hotel environment. Besides chatting, the participants can buy furniture for their rooms and engage in various recreations (payment via mobile billing in Finland).

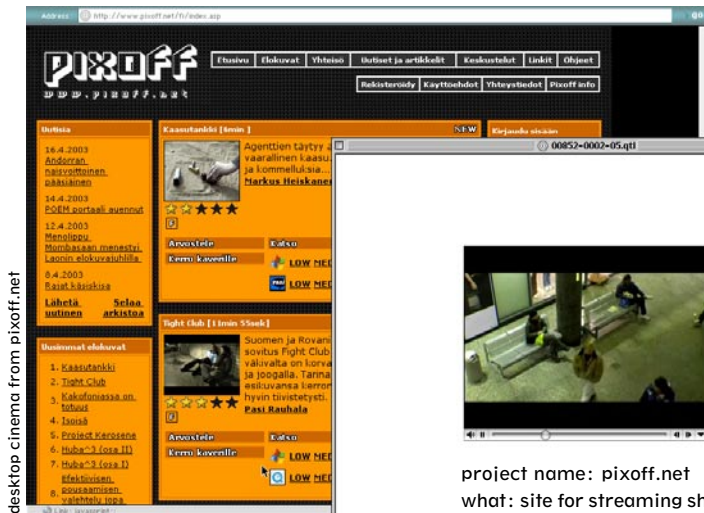


chatting in habbohotel's original finnish version, hotelli kultakala

project name: habbohotel
 what: visual chat community
 when: launched in finland 2000, internationally 2001
 where: local chats in finland, uk, switzerland and japan
 initiator: sulake labs ltd.
 url: www.habbohotel.com

pixoff.net – internet community for short film distribution

Pixoff, produced by Provisual Ltd. in collaboration with Katastro.fi and other partners (most significantly AVEK), is an online forum for presenting, viewing and discussing short films. The Pixoff forum became a quick success among professionals, amateurs and the short film 'underground': the forum has hundreds of registered users and over 100 films in documentary, fiction, animation and experimental categories. Further plans involve the extension of the forum to mobile and digital television platforms.



desktop cinema from pixoff.net



project name: pixoff.net
 what: site for streaming short films and animations
 when: launched 2001
 initiator: provisual ltd. and katastro.fi
 funding: avek, ministry of education, corporate partners
 url: www.pixoff.net

key findings and proposals for finland

findings

The Finnish field of media culture is quite hybrid: crossovers between art, research technology development, design and commerce take place both on the individual and organisational levels. Many practitioners combine different economies and organisations of work – operating as freelancers, company ceos, activists in sequence. The hybridity also involves a mixture of different economies, ranging from selling ones expertise or landing commissions to a ‘gift economy’ of volunteer work and peer-to-peer cooperation.

Education in digital media has probably affected this hybridity in part, since it has mostly taken place in a design context on the university level, and a production context in the polytechnics. In art academies, digital media is not strongly represented in the curriculum, with the exception of Sibelius Academy’s Music and technology programme.

Media cultural organisations, as well as most of the new media practitioners and artists, are concentrated in the Helsinki region, while regional centers – with educational institutions, and business incubators are being established in the cities of Tampere, Turku, Oulu and Rovaniemi.

The media culture organisations stem from different historical phases of and approaches to new media culture and have specialised accordingly to supporting different aspects of it. This makes collaboration more possible than competition, and the organisations tend to have good working relationships.

Despite the existence of several production oriented associations, practitioners of new media are not organised in unions. Instead, looser forms of organisation are on the increase – several small collectives, co-ops and specialised web communities have emerged since 2000.

There are no centers or media labs providing support and facilities for professionals in new media cultural productions. m-cult aims at establishing a center for research, development and production of new media culture in 2004.

The Finnish field of media culture is very well internationally networked and Finnish artists have received wide acclaim, firstly due to sustained activities of the producers themselves or ‘networkers’ – mobile individuals active in bringing in international guests. Also the diversity and different foci of the media culture organisations, together with support schemes of international distribution have extended the network to cover a variety of international nodes and festivals.

Funding for media art is provided by and its annual total is appr. 500 000 euros in 2002, mostly directed to productions and small projects. In order to produce media cultural or media art productions, the company form seems almost inevitable, due to the main funding body AVEK’s rules. Also the programs in content production and regional support as well as the national Technology fund TEKES are tuned towards the support of companies and their focus is in the creation of new business.

Most research and development of digital media takes place in the technology universities. However the more informal R&D that is an organic part of new media should be acknowledged, a lot of it realised by creative microcompanies, individuals and organisations. The innovative potential of this activity has not yet found the right forms of support.

The lack of information and critical discourse on media culture has been evident but the scene is slowly changing. New educational programs and new professorships in media culture have been established in different universities and the web journal *mediat* has provided a forum for critical exchange of media culture scholars and practitioners.

The practitioners see their best skills in communication, networking and a contextual understanding as well as a 'total' quality control of the aesthetic and user aspects of productions. Management and marketing skills in the field are felt lacking, and the need for experienced producers is felt strongly.

On the policy level, differentiation between the cultural and technology sectors is still evident despite recent efforts at intersectorial collaboration. An inter-ministry project for Content creation has been operative in 2000-2003, with the aim of raising Finnish content production to the level of Finnish ICT.

The content production project has developed infrastructures but hasn't yet increased funding for media cultural or content productions. The project's strategy for 2003-07 proposed however the establishment of a digital fund during the next government 2003-07; the plan has been taken forward by the SATU association with the working title DIGES.

Despite advances in dialogue, there is still a discursive conflict between how the support and funding programs and the practitioners themselves understand the production of new media culture; and the practitioners feel a certain frustration in having to explain their work in terms of technology and commerce. This has in part led to a lacking effectiveness of the policy support structures.

proposals

The sustainability and diversity of the media culture organisations should be secured by a substantial increase in funding. A more structural support should be instantiated through longer-term funding decisions.

The continued international mobility of individuals – artists, designers, researchers – as well as projects relating to information dissemination and distribution of work should be guaranteed by special funding programmes.

A separate committee for new media culture should be instituted at the Arts Council to guarantee funding for media artists, cultural productions and organisations.

A socially and culturally oriented research and development programme should be put up and funded substantially by national academic and technology institutions. The innovative potential of the informal research and development taking place in informal, non-academic settings should be specifically targeted in the new funding programmes.

The digital fund to be established should take into account the hybridity of new media culture - the variety of actors, forms and contexts of its production, research and development.

An international center for research, development and production for new media culture should be established to act as an active node in multi-disciplinary exchanges. A 'virtual platform' for networked collaboration and policy development, between media culture organisations should be instantiated.

More effective dialogue between practice and policy should be effected by creating new forae for exchange and efforts in 'translating' the interests of practice and policy, culture and technology should be undertaken.

The continuing education of professionals of the field, continuous curriculum development in new media culture as well as the critical discourse and contextualisation of media culture should be secured by the Ministry of Education and other educational organisations.

III profiles: key organisations in nordic media culture

cultural organisations

This small catalogue contains short presentations of the key Nordic organisations operating in the field of media culture. We have included cultural organisations dealing with support, distribution, production, information and funding of the field and funding bodies. A more comprehensive listing of actors – including companies and smaller project organisations - can be found online at www.m-cult.net

nordic countries

nifca

NIFCA, the Nordic Institute for Contemporary Art, is funded by the Nordic Council of Ministers; the body responsible for co-operation between the governments of Denmark, Finland, the Faroe Islands, Greenland, Iceland, Norway, Sweden and the Åland Islands. NIFCA is located in Helsinki as an institution under Finnish Law, and it operates in the Nordic countries and internationally. NIFCA runs residencies, arranges projects, events and exhibits, and publishes information and criticism related to contemporary art. NIFCA also has a strong orientation to new media culture: its productions include net art galleries, and software art-related residencies (New Media Air) and festivals (Read_me 2.3).

established:

key activities: art projects, events, publishing

location: helsinki (headquarters)

funding: nordic council of ministers

url: www.nifca.org

nordic interactive

Nordic Interactive provides a network for Nordic research, development and education in interactive technology, and thereby promotes visibility and achievability of high-level expertise for potential international partners. The aim is to facilitate means for bringing business and the research, development and education environments closer together in order to create links between projects, programmes and activities within the Nordic countries. The emphasis is on areas of interactive technology such as pervasive computing, human computer interaction, mobile computing, hypermedia, object technology, pattern recognition, and human centred information systems design. Nordic Interactive organised a major Nordic conference NIC in 2001, and runs the research school NIREs which supports co-operation and interdisciplinarity between institutions responsible for formal research education and between industry and the arts. Nordic Interactive membership is institutional: members include education and research institutes as well as companies related to new media and information technology.

established: 1999

key activities: networking, research & development, event organising, education

members: 14 institutional members

employees: 1

location: copenhagen

(headquarters)

funding: nordic industrial fund,

membership fees

url: www.nordicinteractive.org

norway

pnek – produksjonsnettverk for elektronisk kunst

PNEK (Production Network for Electronic Art) PNEK was founded in 2000, financed by the Norwegian Council for Cultural Affairs, and is a temporary project with a time span of four years. PNEK functions as a network geared towards providing appropriate production conditions for artists working with electronic art. PNEK works with production development, competence raising, and raising the awareness about electronic art by providing information about this field.

established: 2000/2001

key activities: networking, events, information, policy

members: atelier nord, teks, bek and notam

employees: 1 person (80% position)

location: oslo

funding: norwegian council for cultural affairs

url: www.pnek.no

atelier nord

Atelier Nord runs production facilities for electronic art and works to strengthen the infrastructure for art in new media. Exchange of knowledge between artists was the basis for the activities. Already from the start international networking was important. The Atelier's main areas of work are: Workshop for artists (including musicians, experimental designers, architects and programmers, writers etc) working with new media. UNIX web server with all standard services as well as special services suitable for artists doing experimental work on the net. Assistance: Individual support, education and help to plan and produce projects. Curatorial work for both internet and traditional exhibition spaces. Education. Organizing courses and workshops on new media art. Forum for discourse on new media art. Research and development - develop and test communication technology and new media in art. Assistance and equipment rental shop for exhibitions. Networking. Build and maintain flat, effective networks for artists and art discourse both nationally and internationally.

established: 1965

key activities: art projects, distribution, events, exhibitions, information, facilities, technology development

employees: 8 (3 fulltime, 5 part time)

location: oslo

funding: national council of cultural affairs

url: www.anart.no

bergen elektroniske kunstsenter (bek)

BEK, Bergen Center of Electronic Arts, is a non-profit organization, providing resources and knowledge for artists and others working in the field of arts and new technology. The development of digital media technology represents an important transformation for the art community. Digitized image and sound cause fundamental changes in terms

of aesthetics, possibilities, expression and workmanship. BEK is dedicated to working in the cross field between different artistic expressions and between art, science and technology. BEK collaborates closely with artists, art organizations and institutions as well as educational and research institutions.

established: 1999/2000

key activities: art projects, content production, design, events, information, facilities, networking, technology development

employees: 1, 5 position

location: bergen

funding: norwegian council for cultural affairs and pnk

url: www.bek.no

trondheim elektroniske kunstsenter (teks)

TEKS is a non-profit organization whose aim is to promote electronic arts of any genre in Trondheim and the surrounding areas. TEKS shall initiate and realise artistic productions and projects, those of TEKS and others, and impart technology and knowledge. TEKS is both a production facility and a production company for electronic arts. The organisation shall coordinate local resources and competence. Artistic projects are carried out in collaboration with relevant businesses and institutions in addition to individual artistic productions in TEKS' studios.

established: 2002

key activities: art projects, facilities, networking

employees: volunteer work

location: Trondheim

funding: norwegian council for cultural affairs, the community of trondheim and pnk

url: www.teks.no

notam (norsk nettverk for akustikk, musikk og teknologi)

NOTAM is a production centre for work with sound - in music, research, education and mediation. The most important function for NOTAM is services to the creative community in music, extending naturally into sound art and cross-media and interdisciplinary art expression. And with the common use of technology in the production of almost any music, NOTAM has reshaped itself into becoming a center for all genres of contemporary music. NOTAM serves the art community in various ways: through making studios, labs and technical assistance available at no or low cost, through building hardware and software for specific purposes, through educational efforts for children, youth and students at universities and music academies, and through advisement for doctoral students and international guests. NOTAM produces a number of events every year, conferences, concerts, installations, a lecture-series with weekly presentations.

established: 1993

key activities: events, exhibitions, facilities

employees: 6 (plus 4 engaged on project working)

location: oslo

funding: national council of cultural affairs

url: www.notam02.no

intermedia (university of oslo)

InterMedia, University of Oslo is a centre for interdisciplinary studies in new media and communication technology. The centre aspires to be “an initiator of activities at the university itself, as well as outwards towards society and business life”. These activities pertain to the challenges given by digitalisation and the convergence of computer, telecommunication and media technologies. InterMedia works with cultural, social, educational, ethical and legal aspects of these changes, with emphasis on the research fields where these aspects meet. InterMedia works with projects in three groups: Net-based learning, InterMedia Productions and New Media.

established: 1996

key activities: research and development, education

employees: 43

location: oslo

url: www.intermedia.uio.no

telenor research and development

Telenor R&D is Norway's largest research establishment within ICT (Information and Communication Technology). Their research has a long-term horizon and comprises future communication networks and services together with applications in various market arenas. Telenor R&D collaborates extensively with leading research establishments nationally and internationally.

established: 1993

key activities: research and development

employees: 290

location: oslo

url: www.telenor.com

01lab

01 lab is located at the Norwegian Computing Centre (in Norwegian: Norsk Regnesentral, or NR). By providing free lab access to creative and experimental individuals, 01 lab hopes to stimulate and create a unique environment -- an environment bringing together those who create multimedia applications and software with those who can use such applications in ways that stretch the boundaries of conventional use. 01 lab's mission is to explore communication by stretching the limits of established paradigms, whether these be considered from the perspective of the arts, the sciences, or social contexts. This field of communicative space begs study and synthesis from many areas. 01lab seeks to prosper through communication and interaction amongst people interested in the “in-between” spaces: from the areas of art, science, communication, media, content, interaction, society and more. 01 lab is a non-profit, cooperative endeavour between artists and scientists worldwide.

established: 2001

location: oslo

key activities:

funding: norsk regnsentral, and projects

employees: no full time staff

url: www.01lab.org

io-lab

IoLAB is an example of a project working towards the establishing of an electronic center in Rogaland. In the immediate future, the most pressing task for **ioLAB** will be to lay the roots for a dialogue between artists working with electronic art and related art fields within the region. The main aim of ioLAB is to provide facilities for exhibiting electronic art works, to provide both a professional and social meeting place in addition to providing both technical facilities and workspace for the production purposes.

established: 2002

key activities: facilities, networking

location: stavanger

funding: project support , norwegian council for cultural affairs and the community.

url: www.anart.no/~kevin/iolab

artnet norway

ArtNet Norway is part of CultureNet Norway, which was established in accordance with recommendations made by the Ministry of Cultural Affairs. CultureNet is structured in four networks: Archives, Libraries, Art and Museums. ArtNet Norway is the official source for Norwegian art on the Internet, giving specific information related to artists and the art scene in Norway. It is intended for people with a general interest in art, as well as for those searching for an overview of online art resources. ArtNet Norway is also a place for artists to produce and present works to the public. ArtNet Norway's pages organize artistic expressions in the categories Visual Art, Dance, Film, Applied Art, Literature, Multimedia, Music, Net Art, Theatre and Comics. The Multimedia section includes web design and computer game works, among other art forms.

established: 1999

key activities: publishing, information

location: oslo

funding: financed by the national council of cultural affairs

url: <http://kunst.kulturnett.no>

denmark

artnode dk

Artnode.dk was founded in February 1995 as a non-commercial foundation based in Copenhagen, Denmark. The aim of Artnode.dk is to supply contemporary art with a digital outlet and thus support international contacts. Artnode.dk plans, creates and distributes contemporary art projects in current and upcoming digital media. The foundation aims at developing and supporting projects, using these new media as artistic platforms - not just as distribution channels.

established: 1995

key activities: publishing, distribution, information, events, exhibitions, art projects

members: niels bonde, nikolaj recke, mogens jacobson, martin pingel, kim borreby, morten schjødt, jacob lillelose

location: copenhagen

url: www.artnode.dk

culturenet danmark

CultureNet Denmark is a portal to Danish culture on the Internet. It features a Culture Guide to Danish cultural institutions, 'CultureNews' containing news articles and e-says, and a daily updated Calendar of activities and events. (In Danish only). Every year CultureNet Denmark allocates funds to selected cultural institutions to facilitate the implementation of experimenting dissemination projects on the Internet. Additionally, CultureNet Denmark organizes one-day conferences and provides an extranet to Danish cultural institutions.

established:

key activities: networking, information, events, funding

location: copenhagen

url: www.kulturnet.dk

superflex

Superflex is an art group and a company. Superflex works with projects that goes beyond the limits of the traditional art world and often results in actual usable projects. An example is provided by the project Superchannel, a "tool" which offers individual people and communities their own web channel and enables them to produce their own internet TV.

established: 1994

key activities: art projects, content production, design, distribution, technology development

members: rasmus nielsen, jakob fenger and bjørnstjerne christiansen

location: copenhagen

url: www.superflex.dk

iceland

lorna

Lorna is an association founded by three artists and two theorists in Reykjavik in March 2002. The aim of Lorna is to promote the electronic arts in Iceland and to open a media lab in Reykjavik. The lab project is based on the idea of a media lab for artists, with close collaboration with companies working on research and development projects in new technology. The first project of the association was to create an event in Reykjavik in June 2002: the main activity of Lorna has been its members' participation in different manifestations in Reykjavik and abroad.

established: 2002

key activities: art projects, information, events, exhibitions, policy

members: 5

location: reykjavik

url: www.this.is/lorna

tilraunaeldhúsid - kitchen motors

Tilraunaeldhúsi is run by a group of representatives from Iceland's active electronic music scene. In the frame of the Reykjavik European City of Culture 2000, they organized a series of vents called Motorlab where electronic musicians collaborated with artists from various backgrounds. Kitchen motors has also initiated electronic music festivals in Reykjavik as

well as concerts in a variety of venues. Their field of activities have been growing rapidly and their latest activities include the release of Appart Organ Quratet's first album and IBM 1401 - A User's Manual a collaboration project by Jóhann Jóhannsson and dancer/choreographer Erna Ómarsdóttir. In 2003 they started the monthly Safe House events at the Living Art Museum.

established: 1999

key activities: art projects, events

location: reykjavik

url: <http://www.edda.is/kitchenmotors>

living art museum

The Living Art Museum is a an exhibition room and a museum run by the Living Art Museum Society which has a membership of more than 130 Icelandic and foreign artists. It's main object if to collect and show the latest trends in Icelandic and foreign visual art. It is not specially oriented towards new media, but is open to innovative projects and new possibilites. The Living Art Museum is the leading esthablishment in the contemporary art scene in Iceland.

established: 1978

key activities: exhibition, art projects, events

location: reykjavik

url: <http://www.nylo.is>

sweden

association for temporary art

Association for Temporary Art [a:t] is an ideal art association, functioning as forum for presentation and discussion on contemporary art. The organisation works with developing and transmitting art related to new media. [a:t] is not guided by any prior prejudices as to what art is or ought to be; rather, it searches for new areas and forms of distribution for contemporary art. In this search, the Internet is an obvious forum, but not the only one, activities include exhibitions as well as seminars. Aside from the artistic production, [a:t] also supplies a technical platform, Smufsa (www.smufsa.nu), which is an experimental server for contemporary art.

established: 1995

key activities: exhibitions, events, information, distribution

members: 5

employees: 1 temporary project worker

location: stockholm

funding: project allowances from e.g. the arts grants committee.

url: www.art.a.se

crac / skodk

Creative Room for Art and Computing is a digital media workshop located in Stockholm, Sweden. CRAC, organized by the non-profit organization SKODK (Svenska Konstnärers Organisation för Digital Konst; The Swedish Artist Association for Digital Art), was started

in 1997 and has become an important venue for the Swedish contemporary art scene. During this time many of the members' works have been shown in numerous public contexts, national and international. In year 2000, CRAC held an exhibition at Liljevalchs Art hall where twenty artists were represented. CRAC has established a field of expertise which previously has been missing. It originated from being a production platform for digital media/new media to an important agent within the Swedish and European artistic and cultural field. As an organization CRAC has a large and an operating network of contacts within the arts, technology and research. A number of collaborative projects has been initiated and realized with Swedish as well as international partners. It is essential for CRAC to have a broad perspective on digital technology as tool and means for artistic expression. In this sense CRAC is operating as a platform for undertaking critical research, experimenting and developing the possibilities of digital technology.

established: 1997

key activities: art projects, consultancy, events, information, facilities, networking

members: about 400 artists

employees: 1,5 people

location: stockholm

funding: kulturrådet, stockholm community, stockholm county council, membership fees, rentals, project funding

url: www.crac.org

electrohype

Electrohype is an interest association for computer-based art. Activities include organising exhibitions, workshops and other events. The association also gives consultancy to people who wish to learn more about computer-based art or arrange exhibitions. Since start-up year 1999 Electrohype has arranged around 1-2 exhibitions a year, e.g. Electrohype 2000, Malmö; NIC Art Gallery 2001, Copenhagen; HotSpot #3 Electrohype, Visby, and Electrohype 2002 conference and exhibition, Malmö. In 2002, the Foundation Framtidens Kultur granted Electrohype a major grant for establishing a media centre in Malmö.

established: 1999

key activities: events, exhibition, consultancy, information

employees: 2 people

location: malmö

funding: framtidens kultur, project allowances

url: www.electrohype.org

elektroakustisk musik i sverige (ems)

EMS (Electroacoustic Music in Sweden) has during the last thirty years served as a national studio for electroacoustic music, where most of Sweden's leading composers of electroacoustic music have worked and where the majority of Swedish music of the genre has been produced. Apart from producing electroacoustic music EMS organises and gives financial support to festivals, concerts and record launches, arranges courses and seminars at different levels, collaborates with music colleges and county music foundations and gives consultancy. EMS works in close co-operation with Fylkingen.

established: 1964
 key activities: art projects, facilities, events, education, funding
 members: 120-150 studio users
 employees: 2,5
 location: stockholm
 funding: rikskonserter
 url: www.ems.rikskonserter.se

fylkingen

Fylkingen is a foundation and forum, consisting primarily of practising artists, devoted to the production and promotion of new music and intermedia art. Originally founded as a chamber music society in 1933, Fylkingen has since then focused on new experimental and unestablished forms of contemporary art and music. Today Fylkingen produces approximately fifty presentations a year consisting of chamber music, improvised music, modern dance, intermedia, text-sound compositions, slide shows, video art, performance art and installations. Fylkingen also puts on a number of productions for schools every year and arranges other activities for children and young people, often in collaboration with other organizations throughout the country.

established: 1933
 key activities: art projects, events, facilities
 members: 178
 employees: 1
 location: stockholm
 funding: the swedish national council for cultural affairs, stockholms culture administration, stockholm county council, svenska rikskonserter/ems
 url: www.fylkingen.se

interactive institute (ii)

II is a multidisciplinary, innovative research institute focused on digital media. The institute performs research in the borderland between art, technology, science and companies, working in close co-operation with universities and colleges, trade and industry, art/culture sector and public institutions. Researchers develop innovative ideas and prototypes, which in turn lead to the development of new products, services and companies.

The institute is built up stage by stage in form of studios located throughout Sweden. Today the Institute consists of ten studios in full activity. Each studio has a unique orientation, in which the basic thinking is that a blend of diverse disciplines will create wholly new activities. A studio has a guaranteed lifetime of around five years, with the possibility for prolonging that if desirable. Basic financing for a typical studio is five-six million crowns a year, enabling research work for 4-6 senior and 6-8 younger researchers. The studio staff is recruited from academia, industry, the public sector, and any other area where individuals with the right competence and vision can be found. The aim of the institute is to create a mixture of academics and non-academics, and people with different competences and ages.

established: 1998

key activities: research and development, design

employees: about 140 people

location: 10 studios in e.g. stockholm, malmö, gothenburg, visby, växjö, luleå, piteå, eskilstuna

funding: ltd owned by the swedish foundation for strategic research; financing from other foundations, municipalities and the business sector partners

url: www.interactiveinstitute.se

splintermind

Splintermind functions as a streaming portal for real time art and music. Under the labels 'Beeoff' and 'Randomstudio' live sessions are broadcast with artists, musicians and djs on the Internet. They also broadcast in mpeg quality, via broadband, to a number of museums in Scandinavia (eg. Kiasma in Finland and Moderna Museet in Sweden). All material has an absolute focus on real time production. Art and music reaches its audience at the same time it is produced. Splintermind is constantly trying to explore the latest production and distribution technology and new display-areas to reach new audiences. Many of their projects therefore, by necessity, have an experimental form. For years they have been working with the development of new artistic tools, both considering hardware and software.

established: 1998

key activities: art projects, distribution, exhibition

employees: 2 full-time, 2 part-time

location: stockholm

url: www.splintermind.com

sub bau networks (sbn)

Sub Bau Networks is forum for crossover activity run by artists. SBN produces art projects and invites individual artists to work on projects. Concept artist Stefan Karlsson runs 'Brand happening' together with a PR consultant, a multimedia producer, a project leader and a support network consisting of concept artist, designers, architects, advertisers, economists, media strategists, researchers and interactive media producers. 'Standard konstförmiddling', run by Stefan Karlsson and Katja Lindqvist, initiates and promotes encounters between art, society and industry by organizing exhibitions, symposia, lectures and workshops.

established: 1983-1987, re-opened in 1997

key activities: events, art projects, distribution

members: 400

employees: 3 part-time

location: göteborg

funding: kultur göteborg and other

url: www.subbau.org

finland

m-cult

m-cult, the Finnish association of media culture was established in 2000 to support production, research and development of new media culture by an active involvement in the practices, policies and structures of the field. Aiming at long-term sustainable development of media culture, m-cult strives at creating productive and critical, multidisciplinary encounters between actors in culture, technology and society. m-cult works to establish a major international research, development and production centre for new media culture in Helsinki by 2004. Prior to the opening of the centre space, m-cult operates as a networked expert organisation, carrying out research and development projects, consulting on policy and educational issues, publishing information online and in print and producing international events and conferences, such as the isea2004 symposium.

established: 2000

key activities: research, cultural production, policy, technology development, information, publishing, events

members: 30

employees: 1 full-time 4 part time

funding: cultural foundation, city of helsinki, projects with ministries

location: helsinki

url: www.m-cult.org

katastro.fi

katastro.fi is an independent media art organisation founded in 1998. katastro.fi was born from a desire to create free art, catalysed by the new possibilities offered by digital media. the core of katastro.fi consists of designers, programmers, scriptwriters and producers working in finnish new media companies and research units. katastro.fi produces non-profit art projects ranging from new technologies to more traditional art forms. Katastro.fi activities center around own and the members' productions; katastro.fi network also carries out co-productions, among which Avantofestival events and the Pixoff forum are most important.

established: 2000

key activities: art projects, events, information, networking, design

members: 50

employees: 1 part time

funding: projects, city of helsinki, arts council of finland

location: helsinki

url: www.katastro.fi

aula

Aula is an open community for people working in different fields of life including science, art, business, government and NGOs. Aula is a nonprofit cooperative that encourages professionals and enthusiasts from various fields to develop new projects together — for more innovative art, science, and technology, and for a better world, future, and quality

of life. Aula was established in 2001 and it opened a living room space for the network society in the center of Helsinki, where it organised a host of seminars (Meeting of Minds 2001), discussions and events. From 2002 Aula has given up the physical site and operates mostly through its web forum.

established: 2001

key activities: networking, information, events, design

members: 400

location: helsinki

url: www.aula.cc

muu

MUU is an artist association for intermedia arts which represents video and media art, performance, site specific, environmental and conceptual art, sound art as well as other experimental forms of cultural production. MUUs activities include running a gallery, supporting its members, running a small media lab, arranging seminars (the Annual Digital days seminar), workshops and events, the biggest of which is the biannual Amorph!-performance festival. MUU became a member of the Finnish Artists' union in 2001. MUU's media workshop MuuMediaBase was founded in 1994 and its activities included projects and production in interactive art, net art and sound art until 1997; nowadays its main operations are offering facilities and courses for video editing. Relating to electronic arts, Muu organises the Digital Days seminar and opened a new net art gallery Gocyber in 2003.

established: 1987

key activities: exhibiting, event organisation, facilities, information

members: 320

employees: 2 full-time + civil servants

location: helsinki

funding: ministry of education, state art committee, helsinki city

url: www.muu.fi

cartes

CARTES, the Computer Arts Centre in Espoo is maintained by a foundation owned by the City of Espoo, Sibelius-Academy and Helsinki University of Technology. Cartes is an experimental studio involved in production, research and development, with music and technology, networked and interactive environments, sensing devices and 3D animation as its main foci.

established: 1991

key activities: art projects, research and development, facilities

employees: 1,5

location: espoo

funding: helsinki university of technology, sibelius-academy, city of espoo

url: www.cartes-art.fi

av-arkki

AV-Arkki is a distribution center for media art, especially video. The artist-run organisation was founded in 1989 to promote Finnish audiovisual art of video, experimental film, computer animation, installation and other independent media. It is a pioneering organisation in the Nordic countries with around 100 artist members and a staff working on international distribution for film festivals, curating, and collaborative projects with museums, galleries and independent curators. AV-arkki organises the annual VIEW Festival in Helsinki. AV-Arkki also holds an archive of video works, experimental films, installations, and cd-rom based works, and a mediatheque open for the public.

established: 1991 (as a part of muu's operations 1989)

key activities: distribution, event organising, production facilities

members: ?

employees: 2 full-time + 2 part-time

location: helsinki

funding: arts council of finland, ministry of education, avek, helsinki city, distribution income

url: www.av-arkki.fi

avantofestival

The Avanto Helsinki Media Art Festival is Finland's annual festival of experimental music and moving image. Avanto highlights the continuities between several generations of experimental art; many of the artists share a common critical attitude towards the prescribed uses of technology. From the minimal sounds of the onkyo school to the recontextualization of mainstream visual culture, Avanto offers hardcore avant-garde art combined with liberating laughter and sub-arctic madness. The festival is organized in co-operation with the Kiasma Museum of Contemporary Art and the Finnish Film Archive.

established: 2000

key activities: events

employees: 3 part time

funding: avek, arts council of finland, state film commission,

location: helsinki

url: www.avantofestival.com

mindtrek

MindTrek Association is a non-profit umbrella organisation for societies working in the fields of information society and digital media. MindTrek coordinates the MindTrek Festival, Tampere Media Week. The founding of the Association has enabled all-year activities and more consistent networking. MindTrek Association is the Finnish partner within the European Academy of Digital Media and is partner in the EuroPrix-network and the IST-project ACTeN.

established: 2000

key activities: events, information, networking

members: 21 institutional members

employees: 1

location: tampere

url: www.mindtrek.org

media centre lume

Media Centre Lume is a national center of audiovisual media, located in the University of Art and Design Helsinki. The Media Center is equipped with first-class premises and latest equipment. Lume activities are threefold: University education by the department of Film, Television and Set Design; cultural and research projects realized in collaboration between the University departments and research institutions; and commercial productions and events by production companies and other customers. LUME also participates in organising events – exhibitions, performances and seminars - in media culture.

established: 1999

key activities: education, production, facilities, events, research&development

employees: 17

location: helsinki

funding: ministry of education, studio rentals and services www.lume.fi

url: www.lume.fi

poem - northern film and media centre

Media Centre POEM is a film and media center which operates under the direction of the city of Oulu's Centre for cultural affairs. POEM represents the entire Northern Ostrobothnian area of Finland, stretching from the northwestern coast to the Russian border in the east. POEM is involved in the production of short films and documentaries, digital media, content for mobile devices, and larger-scale feature productions for movie theaters and television. POEM also coordinates workshops and events in film and digital media.

established: 1999

key activities: events, information, production, research&development, education

employees: 7

location: oulu

funding: city of oulu, the regional council of northern ostrobothnia, the european regional development fund

url: www.poem.fi

funding bodies

nordic

nordic council of ministers / kultur och massmedier

The Nordic council of ministers' steering group for Nordic collaboration in culture and mass media (KM-gruppen) is an advisory board to the council on issues of culture and media policy. Its aim is to support the Nordic field of film and media, through funding for collaboration projects such as seminars, conferences, as well as projects and experiments and distribution and education in the area of film, tv, radio, the press and new media.

nordic cultural fund

The task of the Nordic Cultural Fund is to stimulate and support Nordic cultural co-operation in the field of culture in general; art, education and research. Projects that are awarded grants include everything from art, theatre, music and dance to literature and new media. The main rule is that the Nordic Cultural Fund supports projects involving at least three of the Nordic countries - Denmark, Finland, Iceland, Norway and Sweden. In addition to the five Nordic countries, the autonomous areas in the Nordic Region - Greenland, the Faroe Islands and the Aland Islands – and countries from the Baltic States and Northwest Russia and Europe may be included in the collaboration.

norway

norwegian council for cultural affairs

From 1998 the Norwegian Council for Cultural Affairs administered NOK three million per year to the category Art and New Technology (KNYT). KNYT has played a significant role in the development of the electronic art field in Norway. A new support area has recently been defined that provides equipment funding for independent collective workspaces that are run collectively under the leadership of a general manager who is responsible for providing continuity. The resources that are allocated to KNYT are not drawn from an individual fund, but are a part of the Fund for Norwegian Culture that covers every area that falls under the responsibility of the Norwegian Council for Cultural Affairs. This fund allocates resources the different disciplines. Resource allocated to art and new technology fall under the jurisdiction of the visual arts section, but never the less, has its own cross-disciplinary committee for assessing applications and awards funding to projects that move beyond the genre of visual arts alone. There are also resources ear-marked for the performing arts and new technology (around NOK 800 000).

denmark

arts council

In January 2003, the Danish Minister of Culture brought in a bill concerning a new structure for the support of the arts and international cultural exchange. When the new structure takes effect, The Music Council, Theatre Council, Visual Arts Council and Literature Council will be merged into a single Arts Council, which will have overall responsibility for the distribution of support in these areas, including new and interdisciplinary forms of art and areas of special interest.

sweden

stiftelsen framtidens kultur

The purpose of the Foundation Culture of the Future is to advance an active cultural life by giving financial support to long-term and innovative cultural projects. The foundation was established in 1994 by the Swedish government. The main criterion for project funding is innovation. Projects are divided according to the degree of innovativity in relation to the context. Primary innovation signifies creating something totally new, whereas secondary innovation refers to projects producing something new only in a certain context. Since the foundation doesn't use traditional art form divisions, no problems arise with classification of crossover projects.

konstnärsnämnden(the arts grants committee)

The Visual Arts Fund of Sweden is one of the biggest public funds in Sweden for visual arts. Also new media artists turn to this fund for financial support. Project and working allowances are the most common forms of funding for artists working with new media or other non-traditional technology. The Visual Arts Fund evaluates applications for new media art with the same criteria as other visual art. The criteria are thus the same for artists whose work requires relatively expensive tools or whose projects entail high production costs.

stiftelsen för kunskap- och kompetensutveckling (the knowledge foundation)

The purpose of the Knowledge foundation is to strengthen Sweden's competitiveness and growth through knowledge and competence development. With the aim of upgrading Sweden, the foundation seeks to affect both attitudes and structures in colleges, business sector, school and the whole society. The leading idea is to promote crossover encounters in order to inspire people to think in new ways and develop new knowledge.

stiftelsen för strategisk forskning (swedish foundation for strategic research)

The Swedish Foundation for Strategic Research was founded by the state in 1994. Its purpose is to support research in natural science, engineering and medicine. The expected

lifetime of the foundation extends well into the 2020's. Interactive Institute is a limited company fully owned by SSF.

riksbankens jubileumsfond (the bank of sweden tercentenary foundation)

The Bank of Sweden Tercentenary Foundation (RJ) aims to support scientific research through granting project funding to individual researchers or research groups. RJ was founded in 1962 with a donation from Sweden's central bank (Sveriges Riksbank). In 1993, Sweden's parliament passed a resolution on an additional donation to RJ to advance research in the so-called cultural science. First grants out of the cultural-scientific donation were awarded in 1994.

finland

avek

AVEK was established in 1987 by the joint Finnish copyright organization Kopiosto to promote cinema, video and television culture. AVEK's goal is to reinforce the production structure of the Finnish audiovisual field, thus ensuring long term audiovisual programme production which maximizes the resources available as effectively as possible; it also aims at creating room for new makers in the field. AVEK's funding instruments include support for audiovisual culture (festivals), distribution, education and production (for both television and film as well as for media art and multimedia).

arts council of finland

The media art sub-committee at the Arts council of Finland was established in 1997, originally to coordinate the new 'multi-arts' (new media, circus, comics) that weren't fully represented in the Arts Committees. The media art committee mainly funds new media art productions and events.

tekes

The National Technology agency TEKES has several research&development programmes in information technology, of which the National multimedia project (1995-97), the User Centred Applications programme (USIX 2000-03) and the Interactive Services programme FENIX (2003-06) have involved funding for media culture-related projects. TEKES' criteria for funding usually include both technological innovation and market potential, as well as corporate research partners as co-funders of the project.

IV contributors

Siri Bjurwill works with *K-link*, a regional culture project, run by Folkuniversitetet in Malmö. *K-link* addresses people active within the media & culture field who need help creating work and financial possibilities. The project offers participants strategic help from coaches and consultants i.e. to start up and run culture projects or companies and to link their competencies to new areas. Siri has a cross-disciplinary background from Lund University with three years of studies within the humanities focusing on Theatre and Film and a M.A in Informatics. Her final thesis, written at City University in London, was on the theme "Narratology and Text Analysis Automation". Siri also has a background within ballet, educated at the Royal Swedish Ballet School in Stockholm in 92-93.

Janne Stang Dahl works as coordinator at PNEK (Production Network for Electronic Art) in Norway. PNEK functions as a network geared towards providing appropriate production conditions and development for artists and media labs working with electronic art. 1998-2002 she was executive director at Ny Musikk (The Norwegian section of International Society for Contemporary Music). Besides PNEK, Janne Stang Dahl manages a music trio, and collaborates with different actors as an organizer, free lance researcher and cultural networker. She holds a Master's degree in cultural sociology from the University of Oslo.

Mirjam Martevo has worked in many administrative, planning and management duties within media and art education since 1990. She has been the director of the lighting and sound department at the Theatre Academy of Finland as well as the director of the Tampere School of Art and Communication and the Art and Media department of the Tampere Polytechnic. She has been a member in several committees and working groups within media culture, communication and IT, including the steering group for media education (Ministry of Education). She acted as coordinator of the Nordic research on media culture.

Margrét Elisabeth Ólafsdóttir has a DEA in aesthetics from the Sorbonne University in Paris where she is currently working on a doctoral thesis on artistic creation and new media. She was as head of department of collection and exhibition at the National Gallery in Iceland in 2000-2001. In 2002 she collaborated on a research with the photographic department of the National Museum in Iceland and started to give seminars on electronic arts at the Academy of the Arts in Reykjavik. In march 2002 she founded Lorna, association for promoting electronic arts in Iceland, with artists working in new media. Margrét Elisabet is also a journalist and has published numerous articles on art and culture in Icelandic newspapers and magazines since 1987.

Anne Mette Stevn is M.A. in Danish Literature and Film & Media from 1996. She has worked and taught as an assistant researcher in Disney Films and Culture on the University of Copenhagen. She has also directed three documentaries for television, before she became a tv-producer in the Danish Broadcasting Cooperation, especially within the area of cartoons and computer gaming. In 1999 she was a consultant on new digital media for the Danish

Cultural Development Fund in 1999, since then she has studied the area closely, until the recent Nordic Media Actors research was commenced.

Minna Tarkka has been active as critic, producer and educator in media art and design since mid-eighties. In 1996-2001 she was professor of interactive and multimedia communication at the Media Lab, University of Art and Design Helsinki, Finland. As head of the lab's MA in New Media programme, she initiated study and research projects in digital museums, interactive television as well as critical art and design practice. She has authored and edited works and published numerous articles on media and contemporary art. As cultural producer, she has managed digital art and design projects for museums and the web. In 1990-91, she was directing MUU artist's association and in 1994, she was programme director of the Helsinki ISEA symposium. Currently she is chair of m-cult, centre for new media culture, Helsinki and finalising her doctoral thesis on new media design and politics at the National Consumer Research Centre.

Pia Vigh has worked actively in the cross area of digitized and digital arts & culture and new media. She has published and presented numerous papers on media art, net literature, the museum and netart, etc. As director of Culturenet Denmark (1998-2002) she has initiated concepts and directed projects disseminating arts and culture on the Internet. Pia Vigh is currently working as senior advisor (Film and Media) for the Nordic Council of Ministers.

Vanessa Ware has a background in theatre, combining practice and theory while at Lund University. She has studied the equivalent of a BA in Theatre theory and is presently finishing her BA in Multimedia Education & Technology at the Department of Education, Stockholm University. Parallel with her education she has ventured into the media culture scene by moderating discussions and arranging workshops for URIX (Swedish youth parliament) e-democracy committee and the conference Computer Games in School arranged by Multimedia Education & Technology. She has also been a trainee at the Emotional Studio, Interactive Institute.

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nordic media culture - actors and practices

nordic media culture - actors and practices publishes the results of the research project carried out by m-cult (helsinki) in collaboration with production network for electronic art pnek (oslo) creative room for art and computing crac (stockholm), lorna (reykjavik) and culturenet denmark (copenhagen). the report includes an overview of nordic media culture, with more detailed reports from the national 'scenes' in the five countries as well as proposals, project presentations and a catalogue of key organisations active in the field. one of the key findings is the hybridity and diversity of practices and policies, which prompts one to speak of nordic media cultures - in the plural.

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