

Digital television and the consumer perspective

Report from the seminar Digital television as a consumer platform

Tórshavn, Faroe Islands, September 12–14, 2002

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<p>This report publishes results – papers, findings and proposals – from the Nordic seminar on digital television, Tórshavn September 12–14, 2002 which approached digital television development in the Nordic countries from the point of view of consumers, users and citizens.</p> <p>Organised by the Nordic Advisory Committee on Consumer Affairs, the seminar aimed at initiating a dialogue between consumer organisations and researchers in order to map out research problems and approaches for consumer-led digital television development.</p> <p>The seminar presentations surveyed changes of media consumption in domestic and community contexts, the uses of audience research and insight in programme development, and the need for user-orientation in regulation and policy-making.</p>			
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Eila Kilpiö, Minna Tarkka *Foreword*

The Nordic seminar “Digital Television as a Consumer Platform” was organised by the Nordic Advisory Committee on Consumer Affairs NKU together with the Nordic consumer research coordination in Tórshavn, Faroe islands on September 12-14, 2002. This report presents papers and key findings from the Faroe seminar.

The seminar was coordinated by the National Consumer Research Centre Finland which in the recent years has placed a significant emphasis on researching consumers of new technology, especially focusing on the user-producer collaboration and the role of design, marketing and policy in the domestication of new technologies. These interest areas involve the opening of consumer research towards the disciplines of cultural and media studies, sociology and history of technology, and design research.

This multi-disciplinary approach also guided the organisation of the seminar, which aimed at creating an overview of digital television development in the Nordic countries, from the point of view of consumers, users and citizens. The objective was to initiate a dialogue between consumer organisations and researchers in order to map out research problems and approaches for consumer-led digital television development and to address the issue of how consumer organisations could contribute to the process.

The seminar was rich in discussions which revolved around consumption, production, policy and research of digital television. The presentations surveyed changes of media consumption in domestic and community contexts, the uses of audience research and insight, and the need for user-orientation in regulation and policy-making. The workshops dealt with issues of prosumerism and concrete actions for consumer policy, while the researcher meetings prepared agendas for continued research in a Nordic network.

The missing perspective of the user, consumer, citizen in much of digital television development so far was a common problematic of the seminar. However, the participants brought in a host of constructive approaches, methods and proposals on how to make the missing voices of audiences heard. Among these also the importance of consumer policy and research was emphasised. The move from reactive consumer policy toward a proactive one is needed especially when dealing with new, emerging technologies and their development.

We wish to extend our warm thanks to all the participants in the Tórshavn seminar. Our special thanks to the NKU and the Nordic Council of Ministers, research coordinator Herdis D. Baldvinsdottir and to senior advisor Eeva-Liisa Koltta-Sarkanen, without whose contribution the seminar would not have been possible.

Helsinki, January 20, 2003

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[abstracts and cv's]

Minna Tarkka, *Why television resists digitalisation? A user/producer point of view*

What makes digital television problematic, and much resisted, is probably the fact that TV is an 'old' medium: digitalisation is a translation process in which new 'scripts', new uses for television are still being invented. A successful translation requires the creation of new contexts and uses, as well as overcoming resistances in use and production. This paper argues that the digitalisation project should not only look at television as technology but also as cultural form. User representation and participation in design and policy-making, as well as qualitative and contextual research and development are discussed as ways to reach a cultural turn in DTV development.

Minna Tarkka has been active as critic, producer and educator in media art and design. In 1996-2001 she was professor of interactive and multimedia communication at the Media Lab, University of Art and Design Helsinki) where she initiated study and research projects in digital museums, interactive television as well as critical art and design practice. Currently she is chair of m-cult, the Finnish association for media culture, and finalizing a doctoral thesis on media design discourses at the National Consumer Research Centre.

Frank Boyd, *BBC in search of audiences: public service and the challenges of digitalisation*

The BBC faces an enormous challenges in the shift from analogue, mass-media broadcast to digital interactive networks. What is the role of a public service media organisation in a digital, multi-platform, multichannel environment. Do approaches learnt and developed in new media development and production environments apply to television? What tools and techniques are being used by development and production teams exploring new ways of connecting with audiences? This paper describes the BBC experiecn in coming to terms with the radicly changed madiea landscape.

Frank Boyd is Director of Creative Development in the BBC's Innovation and Learning Department where he has responsibility for support innovation across all BBC departments. reviously Director of London's Arts Technology Centre (Artec) and a founder member of Cultural Partnerships, a participatory media company, he has extensive experience as adviser on new media to governmental bodies in the UK and Europe.

Arild Boman, *Digital television, local broadband and influence from beneath*

Local broadband initiatives started in Norway in the 1980's, and now over 7000 of these user-operated networks have been registered. This paper describes experiences from these projects and their effects on consumer confidence, local vs. transnational broadcasting as well as their role in conducting practical research and development in new communications.

Arild Boman is associate professor at the Intermedia research department, University of Oslo. He has participated in local broadband projects, media art initiatives, like the start of video art teaching at the Art Acedemy, Oslo, and has published research on them. A leader of the MediaCulture research and cultural network. and coordinating the 'Knowledge Channel' at InterMedia, an open network of production and communication

of electronic research and e-learning, consisting of university- and research institutions, and cooperating with the NRK in tv transmissions.

Olli Sotamaa, *Developing audiences: a community-oriented point of view*

Interactive television services affect the way we watch, use and think of television, while the developing television user cultures have an influence on what kind of television contents succeed and what forms they take. User communities of new technologies invent new means, functions and meanings through a "creative misuse". Many television user communities already produce material based on television programmes: e.g. television series fan sites and fan fiction based on the series' characters and milieus. Examples from gaming culture show that field editors and game engines are also used as tools for storytelling. This kind of community-based content opens up new possibilities for interactive television concept development.

Olli Sotamaa is currently Assistant Professor in the Hypermedialab at the University of Tampere, Finland. From 1999 through 2001 he worked at the Hypermedialab as a research fellow. His latest articles focus on user culture research methodology and hybrid communities that utilize latest digital technologies. Sotamaa's research interests include creative practices among digital media user communities, social usability and combining user culture research, concept development and design practices.

Tanja Sihvonen, *TV chat communities*

TV chat is a "new kind of interactive TV programme", which was launched in Finland in 2000 on a cable channel called TVTV!. The TV chat is like a chatroom on the Internet, except that it works through the TV screen and the mobile phone. Today TV chats are hugely popular and have specialised in, e.g., dating. There are also hosted chat programmes ("chat shows"). It is interesting to look at what kinds of messages people send to TV chats. Could there be some reasons for sending messages that are not explicated and cannot easily be analysed? What purposes does seeing the message on the screen serve for the viewers? In my opinion, TV chat messaging can be interpreted as a form of self-expression, communication and social interaction.

Tanja Sihvonen is a cultural historian and a PhD candidate in Media Studies, who interlinks several aspects of media culture in her PhD thesis, titled "Inter/National Perspectives on Digital Media, Politics and Cultural Production". She has been working on a variety of topics, ranging from 1960s French popular film to Finnish digital television. Currently she is studying contemporary phenomena - such as chat communities - while also working on a major publication on the cultural history of television.

Pernilla Severson, *Dialogic policies for public service*

This paper addresses the end-user of digital TV within a policy framework. Examples are given on how public service TV in Sweden lacks an end-user orientation, and what consequences this has for digital TV development. From the research discipline of media studies two issues are brought forward: 1) Is it desirable to have a user-oriented public service digital TV? 2) How is it practically possible to put this end-user-oriented public service into action in the digital future? The paper concludes with general principles on dialogic policies for public service, pointing out some problematic areas and research recommendations.

Pernilla Severson is a media and communications researcher at Uppsala University. Her dissertation thesis is to be completed by the end of 2003 and deals with the transition in Sweden from analogue to digital terrestrial television. Principal focus of the thesis is on the policy implications indicated by an end-user perspective. A theoretical framework is

constructed by integrating perspectives from media technology development, media policy, and media audience research. The result is a scenario for the future for how it is possible to secure more *public* in *public service* broadcasting.

Pertti Näränen, *Missing perspectives in European regulation of digital television*

The missing user perspective in the development of digital television (DTV) in European media policy is due to the focus on accelerating the development of digital television markets, not on protecting the interests of the citizens and their cultural and social needs. The neo-liberal minimal regulation of the EU in the DTV standardisation has in practise played against consumer interests. Because of the missing public interest regulation, we do not yet have a common standard platform for interactive services or digital pay television. Instead, the private, proprietary standards of the major satellite corporations dominate the markets. In practice this prevents the viewers from accessing a full range of digital channels and services with one, compatible set-top-box-device. Open standards and open access regulation are an important part of user-orientation urgently needed in new media policy.

Pertti Näränen is a researcher, doing his dissertation on digital television in Finland from the perspective of television journalism. He has been active as coordinator for the university network of communication sciences (<http://www.uta.fi/viesverk/>), taught courses on audiovisual media and held various confidential posts as editor of the Finnish journal for media research, chair of the Finnish Society for Cinema Studies and webmaster of various web-pages. He has also worked as a journalist in print and radio media.

Eivind Stø, Jo Helle-Valle, *Digital TV and the moral economy of the household*

The paper reflects on two interactive TV pilots that were tested with families in the Telenor's Future House. In using the services, the test families expressed ambiguities: it seems that interactive TV draws time and attention away from the families' mutual interactions, and may seem a threat to the moral economy of the household – the domestic values of intimacy and sociality, and the families' allocation of temporal as well as monetary resources.

Jo Helle-Valle is researcher at SIFO The National Institute for Consumer Research in Norway, where he specialises in consumer culture. He holds a PhD in social anthropology and his interests include local politics, race and sexuality.

Eivind Stø is research director of SIFO, The National Institute for Consumer Research in Norway. He has specialised in market and distribution research and also acts as coordinator of the international network for sociology of consumption.

Tove Rasmussen, *Television and Internet use in the home: patterns of use*

Based on the research project at Aalborg University "Multimedia at Homes", and comparing the experiences with British studies of television use, the paper discusses audience interest in digital and interactive television: 1) In terms of social or individual use of television findings suggest that digital television tends to gather the family around the main TV set in the living room whereas analogue terrestrial television has become more individualized 2) The social uses of television in the home seem to undergo a change in digital families which has consequences for the digital programs and services preferred by the audience.

Tove Arendt Rasmussen is research fellow and Associate Professor at the University of Aalborg, Denmark. She holds a Ph. D. in Media and communication and her research background is in media ethnography and cultural studies. Her thesis was about young

boys' collective reception of action videos. Lately she has taken up the new formats of reality television – both in terms of cross media consumption and in terms of hybrid genres. She participates in the Aalborg university's research project Multimedia at Homes, where she works together with Pirkko Raudaskoski on possible methodological convergence between media- and computer studies from a situated perspective.

Pirkko Raudaskoski, *How can (digi)TV viewing be researched?*

In media studies, reception is traditionally regarded either as a cognitive phenomenon to be studied within the framework of cognitive science, or a cultural issue which can be researched through interviews. Within the latter paradigm the interest is in how people interpret television programmes in a larger cultural context. However, interactions at and with TV can be researched as a sense-making activity that takes place through situated sequential interpretation and that can exhibit cultural interpretations, as well.

Pirkko Raudaskoski is research fellow and Associate Professor at the University of Aalborg, Denmark. Her academic background include studies in English (Ph.D, Oulu University) and Artificial Intelligence (University of Edinburgh, Scotland). Her interest is in meaning making processes as social, public phenomena (including citizenship as a social practice) and in how the material environment influences the way people understand what is going in a specific situation.

Mika Saastamoinen, *Digital TV and consumers - a literature review*

The paper surveys research relating to consumers and digital television, presenting a selection of reports from the Nordic countries and the UK.

Mika Saastamoinen is Master of Social Sciences (sociology), Helsinki University 1999. His doctoral project studies consumer representations and images in relation to new technology, including digital TV. He is researcher at the National Consumer Research Centre NCRC since 1999.

[introduction]

Minna Tarkka, *Why television resists digitalisation? A user/producer point of view*

“Everything is fine – the only problems we’ve met are in the receivers” – this statement was made by a director of broadcasting recently, around the first anniversary of Finnish digital television. The utterance is typical of digital television development in two ways. Firstly, it addresses a technological problem as the only one to worry about, and soon to be solved. Secondly, it uses a very telling *metonymy* which replaces the user with the receiver (the machine). Our broadcaster is speaking of machines only, while knowing very well that the real problem is with the users, the audiences, the consumers who are still unwilling to buy into digital television.

Digital television: change the script!

In fact digital television does not exist yet – what we are witnessing is broadcasting practices going digital, a mess of standards and platforms, contents and contexts. It is a technology in the making, still a matter of controversy. Digital television has not yet been sealed into a ‘black box’, which is when, according to Latour (1987) the neat separation of content and context can be made and the technology seems to find its ‘natural’ place. Once the controversies are resolved, our broadcaster friend’s dictum “Once the machine works, people will be convinced” will be proved wrong and replaced by “The machine will work when all the relevant people are convinced”. This reversal of common (engineering) sense stresses the point that technologies are constructed rhetorically in a process of finding allies, convincing them and aligning them into a network that holds, and in turn makes society durable (Latour 1987, 1991).

Turning an old medium to a digital, ‘interactive’ one seems to be even more difficult than introducing completely new technologies. Television is not only an item of technology, but also a cultural form (Williams 1974), a familiar object of the household, deeply entwined with the social and material practices of everyday life. Instead of projecting a completely new set of needs and wants (such as mobility and ubiquity in gsm communications), the culturally rooted uses of television have to be reinvented or replaced by new ones. This is why we speak of *digitalisation*.

Using the language of actor-network theory, the digitalisation of television is a process of *translation*. The ‘script’ attached to television as we know it has to be changed – but this involves more than the technical issues of switching from analogue to digital signals and receivers, or of compressing channels into multiplexes which can be browsed via the Electronic Programme Guide. Translation processes are not simple transfers, but they are always transformations, betrayals of the original (Law 1997). Like a film script, a technological script describes the whole environment – the roles of the actors, the settings and the discourse they represent (Akrich 1995). In the case of digital television, this implies that we should look at digitalisation not only from the perspective of new ‘contents’ and ‘platforms’ – but instead situate the process in a wider social and cultural context. Considerations of technology, market and regulatory frameworks should be enriched by an understanding of the cultures of use and production.

So far, the efforts to translate television have been centered around the figure of 'interactivity' and the notion of a 'value-added' television, where digital technique allows new interactive features and services added on top of the familiar medium. The new interactive uses of television have in the last decade been envisioned to include, eg.

- a wider choice of programme content – by selecting channels through the EPG or programs from video-on-demand services
- simultaneous 'seamless' transactions – electronic shopping or betting related to the programme content
- value-added information services – either relating to the programme or more general (citizen information services)
- cross-media – programmes spanning a combination of media channels such as tv, internet, mobile
- poll-type interaction using the return path or telephony
- interactive programmes and games where the storyline and actions are modified by the user in a dynamic or exploratory way

Very often the trials of interactivity on television have been quite cumbersome and haven't yet proved to produce the much awaited 'killer applications'. The slowness of the process of reinventing television is strikingly illustrated when one compares the contemporary proposals with the new forms of television as listed by cultural studies father figure Raymond Williams three decades ago. Cable television, combined with computers could yield services such as:

- (a) wired news, weather and traffic information services;
 - (b) shopping services, with the telephone system keyed in, so that goods can be seen and ordered;
 - (c) educational programmes of all kinds;
 - (d) 'demand' information services from libraries and memory-banks;
 - (e) 'demand' television programmes, films, etc. ordered from a library catalogue;
 - (f) telefax or 'homofax' replication of newspapers, magazines and other printed material;
 - (g) medical consultancy services;
 - (h) public meetings, discussions, conferences and voting
- (Williams 1974, 137)

There seems, then, to be something about television that is highly resistive to change. If we look at the explosive development in information technology in the decades since Williams' listing (from a time when even portable TVs and VHS tapes were novelties), it becomes clear that *technology* itself has not been the resistive factor. The 'problem' with digital television then clearly lies within the *cultural forms* – in the practices of television's use and production, and in the ways how they have or have not been enrolled and represented in DTV development.

Resistances in use and production

The most significant allies needed the process of television's translation are probably the users – as long as they are not convinced, digital television simply will not work. However, in most countries, there is considerable resistance to the uptake of DTV. In Finland, during the first year of digital terrestrial television, less than 40.000 set top boxes had been sold. In Sweden, 17% of the population are on DTV after three years, while 80% remain not interested (Severson 2002). Even in the UK, the leading nation in digital television uptake, recent research on consumer attitudes showed that large parts of the population are *unable* to get, *unclear* or confused, *unconvinced* about the offering or *unwilling* to switch to digital television; the last group representing a quarter of the population (Consumers' Association 2001).

The phenomenon of resistance is not a new one in technological projects, on the contrary. It actually seems to be a key, if usually not explicitly pronounced, aspect in implementations of information systems. Phil Agre (1995) has reflected upon the different strategies and user conceptions in countering resistance towards IT implementations at the workplace. He singles out a *technical conception*, which more or less sees the user still as a kind of system externality, figuring out ways to improve system functionality and simplicity; and a *managerial conception*, which attempts at persuading the users through rhetorical and educational campaigns. Both of these discourses are present in DTV policy. A fine example is given by the digital television campaign on the Finnish PSB YLE, where a humoristic trailer depicting 'real-world' situations of choice (what if you could affect your lottery result, or the routes of public transport?) is followed by a didactic animation, where a faceless male shows his partner – equally faceless female called Soile – how easy it is to install the set top box.

The reasons for resistance are familiar too: so far, the development of DTV has proceeded in a technology and market driven manner, neglecting the user's or consumer's point of view. The development is conducted at locations of strategic planning such as the Finnish digi-tv forum or the European DVB group. The futures of television are mostly extracted by consultancies, based on executive and expert views (see, for example Pelkonen 2002).

When audiences are turned to, the tools of market research – such as surveys and focus groups - are taken along. Through market research, models from neoclassical economics and rational theory of choice still guide the questioning of consumers – and this is true of digital television too. Typically the surveys apply a kind of SWOT model; consumer hopes, fears and attitudes, together with their willingness to pay are surveyed in order to extrapolate a time of technology saturation, when hardware pricing and availability of choice have reached a level where the purchase is supposed to be rational enough. As Daniel Miller (1995) has pointed out, a major problem with the research based on economic models is that consumers are represented on the one hand as individuals (rational market actors) and on the other hand as an abstracted 'aggregate' (the mass constituted by a statistic of individuals). Besides obscuring from view the social, cultural and material aspects of consumption, the tools have a performative power: they actively participate in reproducing their premises – while quantitative results often become translated as qualitative indicators (cf. Severson in this report).

Another problem with market research is that its tools are not accurate in finding out about new technologies, of which the consumers have little or no actual experience (Carey and Elton 1996, 47). Instead of existing markets or actual business opportunities,

with digital television it is still a question of envisioning *possible revenue models* (cf Pelkonen 2002) – of *forecasting* demand for products and services which are yet to come. Studies on forecasting techniques show that they mostly tend to overestimate demand (Carey and Elton 1996), and exceeding reliance on them proved to have fatal consequences in the 3G telecom crash. Even the establishment of standards, which is supposedly premised on the ‘market’, is too much upstream in the design process for any actual market requirements to be identified yet (Hawkins 1997) – which may have drastic consequences for subsequent user access (see Näränen in this report).

The one thing that market research shows us is that user resistance towards switching on to digital television is manifested as a *passive resistance*¹ – a refusal to purchase the set top boxes required for signal reception. But resistance isn’t limited to the users alone, it seems to find its counterpart in producer cultures, within the organisations of broadcasting.

For example, the EBU digital strategy group foresees major organisational restructuring in turning public service broadcasters from ‘mono-media’ to multimedia organisations (EBU DSG 2002). The old *media-oriented* organisation is replaced by a *functionally or multimedia oriented* one, and possibly combined with a *production market structure* which renders in-house and external producers in ‘healthy’ competition. With digitalisation, business process re-engineering has finally entered the broadcasting corporations, which for a time seemed relatively untouched by the workplace turmoil brought about by the IT ‘revolution’. The ways to ‘manage change’ in broadcasting are various, but they often involve regroupings according to genre and audience segment, with the aim of reaching generic cost-efficient production for multiple platforms. Thus at YLE the organisation has recently been restructured into ‘centers of expertise’ based on broad subject categories (eg. sports, culture, education, drama). The old model actually had very similar departments, but the renaming and reorganisation signals a shift towards ideas of ‘core competencies’ and ‘transferable skills’ – the familiar trademarks of the new flexi-work of technoculture (cf. Robins & Webster 2000).

The change thus affects work practices, not only in terms of new digital tools and the ‘lifelong learning’ required in keeping up with their updates. The organization of work changes from hierarchies of expertise to multi-tasking teamwork, a change which seems a threat especially to the senior professionals in broadcasting (Teinilä-Smíd 2000). Through increased outsourcing and subcontracting, a lot of the jobs are made redundant too. From the television producer’s and programme maker’s point of view, then, there is good reason for resistance: digitalisation clearly brings very concrete risks - even unemployment.

The resistance in production cannot be belittled – how is a project to succeed, if even its producers are skeptical? In order to become successful, technology projects need to be loved by their creators (Latour 1996), while enthusiastic spokespersons are required to spread the word and convince actors about the innovations (Pantzar 2000). But even the spokespersons seem to be skeptical: upon leaving his post a former chair of the Finnish Digi-tv operators’ forum compared digital television to an empty ketchup bottle:

¹ The resistance is not organised into movements, nor is it aggressively ‘luddite’ or anti-technological. Within cultural studies, the notion of resistance has also been extended to describe the creative, and sometimes subversive appropriations of mainstream culture. Cf. Sotamaa in this report.

“however much you squeeze it, no content will emerge”. The post-IT-boom skepticism in Finland is deep; besides ketchup bottles, digital terrestrial TV is often compared to the WAP failure.

The BBC, interestingly, answers the challenges of changing user and producer cultures by a twofold strategy. The internal campaign “One BBC – Making it happen” launched in 2002 announces the mission of “putting creativity and audiences at the heart of everything we do” (One BBC 2002; Dyke 2002). Creativity, innovation and collaboration are the strategy’s inward aspects, and their emphasis on audience insight links them with the outward strategy, which is the BBC’s response to increased competition over committed audiences (cf. Boyd in this report). Thus traditional ratings-based audience research becomes supplemented by participatory *audience development*, a process which has been used in cultural institutions such as museums in their outreach projects. The BBC projects even include innovative ‘prosumerist’ programme schemes, where UK citizens produce short documentaries of their everyday life (*Videonation*²) or the young homeless are invited to act as sports journalists.

The BBC strategy is significant also in that it strongly introduces *a culture of design* to act as intermediary to the user and producer cultures. Audience insight is gained by introducing user-oriented design methods, such as co-design and contextual inquiry (‘follow the viewers home’), which are brought to resonate with traditional programme-making practices. Digital ‘content production’ projects usually tend to treat content and technology as separate domains and thus neglect the importance of design – the necessary process of translation where contents and platforms are woven together into an interactive piece. Designers also profess to act as the users’ representatives in product and programme development, ideally not only negotiating contents and technologies, but also the styles and uses of the applications.

Content to context, interactivity to participation

Is television, then, gradually becoming a new media, a matter of designing interfaces and interactivity – or is content still king, the ‘core product’ of broadcasting? The latter view seems to please the EBU, whose strategy for entering the digital marketplace is based on further developing the “three methods of accessing content” – *channel flow*, *multi-channel flow* and *on demand* (EBU DSG 2001). Many surveys point that increased program and channel choice are also the users’ main interest in DTV, but the results also point to possible changes. It seems that more persuasion is needed to attract the users’ desires; increased program choice and access methods are not sufficient. According to the Consumers’ Association (2001), the DTV-resistant 25% would be happy with the current five free-to-air channels still after the analogue switch-off. Even if experience with pay-tv has clearly been inductive to DTV takeup, the CA criticizes digital television policies for their reliance that the offerings of commercial channels will be persuasive enough to go digital, and stresses the importance of public service broadcasting in delivering attractive digital free-to-air services.³

It is also possible that the current visions of interactive services are not so persuasive either - isn’t the user more or less represented as a ‘choice operator’ in them too? Even

² <http://www.bbc.co.uk/videonation/>

³ Also Born (2002) sees a crucial role for the PSBs in risk-taking and innovation, activities which are often restricted in broadcasting companies driven by commercial imperatives.

in the much awaited open standard for added services, MHP, the return path remains too narrow for any richer interactivity or participation. Using Williams' vocabulary from the 70's, when the activity is of a button-pressing kind, we should perhaps rather talk about *reactive* than *interactive* use (Williams 1974, 139).

The 'return path' is a good example of how user representations invisibly migrate from policies and research tools to implementations. Aided by the market notion of rational agents of choice, the broadcasting model – 'one to many' – has been translated into digital form and hardwired in the interactive technology itself. The user of digital television is conflated with a one-dimensional notion of the consumer – and also of the citizen, whose role in decision-making is reduced to the activity of voting.

But the notion of interactivity is not related to content and services only. As was indicated above, interactivity can also refer to the *process* of development, implying a set of procedures – research methods and design approaches that engage in close observation of the users' *context*. In the wide field of human-computer interaction research, the conception of the user has proceeded from cognitive and usability factors to cover contextual, situated and qualitative aspects of the user experience. Ethnographic observation and communication studies produce insight on the ways users interact with their material environment and with each other; joined with interaction design methods, these insights guide design projects that are conceptualized, prototyped and tested in a continuous dialogue with the users.

Research, development and design are thus a necessary element in all digital media development – a multidisciplinary approach is needed in creating 'scripts' for platforms and user cultures that co-evolve in constant change. Related to digital television development, also the disciplines of media research and cultural studies - with their qualitative understanding of media, identities and meaning - will contribute to a richer conception of DTV users and consumers. Participatory design, with its roots in Scandinavian workplace democracy, has been effective in creating motivated and committed user and producer communities. The method is currently used in the Swedish project *Avatopia*⁴, a hybrid of TV programme and 3D online environment targeted for teenagers, with the aim of encouraging societal engagement through collective storytelling.

Finally, user representation and participation should not be limited at the contents and services only – also the development of platforms and standards (and yes, even spectrum allocation) should be guided by a user-oriented approach in order to guarantee universal access. Television is not an island, but just one 'content provider' in a multimedia landscape, where several other sources of content and signal provision, and a variety of reception contexts and platforms coexist. From the consumer perspective, it would be ideal to develop this media environment to suit the shifting contexts and situations of use. To achieve an 'anytime, anywhere' access to contents, across delivery channels (terrestrial and aerial, wired and wireless) active developments in multi-platform interoperability and open standards are necessary.

This already brings us to the politics and policies of regulation, issues that are seldom brought to the knowledge of the audience at large. Direct citizen representation in technology policy-making is scarce, but there are some promising initiatives. In order

⁴ To be launched in 2003, see <http://www.animationenshus.eksjo.se/Avatopia/>

to secure the public's interest before the switch-over to digital television, the British government established a Viewers' Panel in 2000, with representation from various local and minority communities and non-governmental organisations. The panel assesses the evidence provided by industry, broadcasters and Government and performs *reality-checks* at different stages of the digitalisation project (Viewers' Panel 2001). The Danish Board of Technology, directly connected to the Danish parliament, provides another example. The board has successfully used the 'consensus conference' and other collaborative fora for MPs and 'ordinary people' to raise conflicting agendas, produce dialogue and reach agreement in technological decisions.⁵ The model could well be applied also in raising public interest and participation in digital television development.

The local broadband initiatives in Norway (cf. Boman in this report) and in the UK⁶ indicate that citizens are not passively waiting to be invited to panels. They are already at work: taking over unused spectrum, building their own cross-media platforms and producing content for them, while also testing out new technological solutions and even influencing regulation. In many successful technologies, it has been the case of 'user revolutions', of users taking over the networks at an unforeseen (and unforecasted) speed, turning the network to suit their immediate needs and wants (Pantzar 1996, Locke 2001).

Activist consumers, NGO's, and user subcultures are thus very important groups to learn from. Their approach to technology is usually based on quite practical needs and desires, which tends to produce solutions that are culturally and socially motivated, but not without technological innovativeness or market potential. The community perspective may also yield a *communicative* conception of the user, which will certainly enrich the still powerful technical and managerial conceptions, and the tendency to see consumers as a mass consisting of individuals or households.

Conclusions – a cultural turn for DTV development

In conclusion it is obvious that a 'cultural turn' in digital television development is in place. Instead of individuals (represented as rational market actors) or aggregated masses (represented as figures in audience segments or market forecasts), richer representations of the users should be devised from a qualitative understanding of the users' cultural context, the social practices and meanings involved in media consumption. Accompanied by actual user participation in DTV design and policy these representations would very possibly produce new, socially and culturally innovative televisual practices and applications.

In the past year, the initial plans for switching off analogue television have been revised and in most countries the schedule has been extended to between 2007 and 2010. This new time span allows a thorough rethinking of the process of DTV development – changing its direction to a consumer-directed one. As we have seen, there is a host of good practices and methods for user involvement – and these should be brought to guide the strategy towards the final switch-off.

⁵ <http://www.tekno.dk/EPTA/members/danmark.php3>

⁶ See, for example, the London-based initiatives <http://www.consume.net> and <http://www.free2air.org>

Frank Boyd, *BBC in search of audiences: public service and the challenges of digitalisation*

Television in search of its new role

Television is a medium in crisis. In the era of analogue, mass media broadcast when there was extremely limited bandwidth network television was the dominant cultural medium in Western society. The accelerating transition to ubiquitous, digital, interactive (participatory) networks has diminished television's importance and left it struggling to attract audiences, having to redefine its role in a bewilderingly expanded field of competitors for users' attention.

There are profound and continuous changes in the way that people use media: how, where and when they get access to information, what technologies they use and, most significantly, why they use the services provided by media publishers, distributors and 'platform' providers. The changes are driven by four major factors: *technology push*, *creative pull*, *consumer demand* and the *flow of money*.

Especially the young are consuming more media and less television. Recent surveys also show, that TV is increasingly becoming an ambient media – people spend less and less 'quality time' in front of the TV set and 'potter about' with the TV on. It is important to understand the consumers' daily use of media, across a variety of contexts and platforms. The BBC also manages a public service portfolio of channels and services which spans a multitude of technical platforms.

The challenges of digitalisation for PSB

There are manifold challenges for public service media providers in this radically changed landscape. In the UK the BBC feels the need to justify the licence fee by continuing to attract mass audiences for the main terrestrial television channels. This has led to accusations of 'dumbing down' in the press. While there is no real evidence to support the assertion that the BBC has lowered its intellectual, artistic or moral standards in pursuit of ratings, this is not a rational argument. Most people do not make day by day comparison of schedules from the present and a posited 'golden age' but point to one or two shows from the sixties or seventies as examples of the way things used to be.

The BBC has moved away from what was known as the 'hammock' approach to scheduling channels in which a popular entertainment show might be followed by a more demanding documentary or news programme. 20 years ago viewers had to get up and cross the room to physically switch to one of the (at best) four alternatives. Now people can surf to one of a multitude of channels without leaving their armchair. In such a market the controllers and strategists have decided that channels need to appeal consistently to a particular demographic. The BBC has launched a raft of new digital channels and is repositioning the main terrestrial channels to appeal to different segments of an audience that has become increasingly fragmented.

This approach has sharpened competition in some areas. BBC1 and ITV1, the major popular channels in the UK are in a fierce battle for audience share; BBC3 and E4

(Channel 4's subscription channel) are in direct competition for the young adult market. Commercial rivals accuse the BBC of making unfair use of the licence fee and of neglecting public service requirements. They also claim that the BBC abuses its power by heavily cross-promoting its channels and services: it has been noted, for example, that *Eastenders*, the popular soap opera on BBC1 regularly starts two minutes late because it is regularly preceded by a trailer for another BBC channel.

The BBC responds that there is nothing wrong with ensuring that the license fee payer knows what is on offer; they will also argue that they have a mandate from government to encourage the uptake of digital services. In the past year the BBC has launched four new digital television channels and four new digital radio networks.

To inform, educate, entertain – and to connect

“Audiences are the reason we exist. Our survival depends on them. It’s as simple as that.” (taken from a recent report to BBC Executive Committee)

Recently, the BBC has changed its mission statement – “to inform, educate and entertain” to include a fourth value – “to connect” with audiences. Without the continuing support of many and varied audiences the BBC will become irrelevant and eventually wither away. It wouldn’t be the first organisation to do that, by losing touch with a changing public and market.

Some parts of the organisation - local radio, BBC Wales, BBC Scotland - understand this instinctively and continually reach out to their audiences. BBC New Media is pioneering some of the most sophisticated user-centred design processes anywhere in the world. And yet other departments are, at best, ambivalent about audiences, fearful of the potential dead hand of focus group driven, risk-averse, management culture. Producers in network television often regard audiences as people to be talked at rather than engaged with; not individuals keen to interact with the things they make. To excel in a multi-channel, multi-platform world, the BBC needs to excel in all areas – and that depends on how it connects with its audiences.

In April 2002 the Director General appointed a working-group of senior programme makers, lead by the controller of one of the main terrestrial TV channels to investigate how the BBC can become an organisation that embraces the complex, surprising, unpredictable and changing nature of the people it aims to service. What would a BBC that really put audiences at the heart of everything it did look like?

To answer these questions, the Audiences group talked to a wide range of companies and organisations, and embarked on some complex pilots to test out different ways of working. In the report they have just produced, the group concludes:

Great content is no longer enough: we now need to deliver great content *and* create a new, two-way relationship with our audience. Over time, this will affect everything that we do, in all parts of the BBC.

Their central recommendation is:

Put audiences at the heart of the creative process, rather than at the end, and bring together the BBC’s two different cultures of content creation and audience understanding.

This means:

Rethinking the function of audience research

Insight specialists co-sited with production teams

Emphasizing and teaching audience understanding at all levels

Creation of a new kind of low cost, accessible audience research

Continuing work towards a deeper understanding of ethnic audiences

From silos to collaboration

The idea of ‘user-centred design’ is an alien one in most television production teams. There are many producers who would regard the notion as hindering rather than stimulating creativity. And yet in other parts of the BBC, especially in new media production departments, understanding the user is a key and ever-more professionally structured phase of the design process.

The BBC, with over a half-century of experience, employs some of the most talented and experienced television producers in the world. As the organisation adapts to the digital era it is building teams of new media designers for the web and other platforms of similar world-class calibre. A fundamental challenge is now to integrate the skills and working practices of people from these different disciplines. This is a considerable challenge. Like many large institutions the BBC is organised in ‘silos’ and it can be difficult to build dialogue between designers and coders who have developed a sophisticated understanding of the relationship they have with their users and television or radio producers who know how to build a strong linear narrative.

One area of potential convergence lies in the use of audience insight and understanding of consumers as a source of creative inspiration. This is a field where New Media have developed a series of tools and processes that are widely accepted and used. Development based on consumer insight is still in its infancy in television. Two major pilots – one exploring new ideas for programmes about Food and another on Saturday night entertainment have just been completed and significant investment is planned to build on these in the next financial year.

Arild Boman, *Digital television, local broadband and influence from beneath*

The new communication systems, such as digital television may bring us new services, but may also lead to massive centralisation, undeclared monopolies and pressure on consumers and societies. Considering such tendencies and possibilities may easily lead to a paralysis of action. But if the focus is placed on more local conditions, other tendencies and possibilities may become visible.

In several of the Nordic countries, the earliest broadband systems - cable/communal antenna systems in the housing areas etc. - emerged since 1960. In Norway, for example, more than 7.000 such networks, owned by the local users, and covering more than 40% of the population, have been so far registered by the Norwegian Telecommunications Authority⁷. These nets, the access nets of cable tv in Norway, have largely remained independent, even when large or monopolist cable companies owning the trunk cables have for some time dominated signal provision.

Digital terrestrial tv-networks may mean more competition. Notably, the new broadband radio access systems may not need as large investments as the earlier systems. They may be installed by small entrepreneurs close to local communities, and owned by housing organisations, local business parks, institutions, etc. In Norway, for instance, several small user- and consumer-owned cable nets in the housing areas are now adding radio broadband access to their system, and even may challenge the near-monopolistic cable companies that control the delivery to their neighbours.

Community-based broadband production

Especially at an early stage of this development, it would be important to investigate the possibilities for consumers and local communities to increase their influence and self-confidence in the advent of new communication systems. The networks may be used for local communication and information - “what is happening in our community?” - i.e. not only as systems for a global transportation of the products of Time-Warner, Turnes, Berlusconi or the like. The cable-, broadcast-, and media corporations have considered such local activities on the ‘electronic highway’ as far too advanced for ordinary people. Before the start in the early 80-s both NRK and Telenor said it would be impossible.

But the practical research tests with people from housing areas from 1982-83 on – soon spread to very different localities and groups in all regions of the country, like house wives in the small West Norwegian town of Førde, youngsters in Tromsø, and physically disabled in Oslo. The activities of people with non-elite backgrounds simply falsified these preconceptions. The first report on such experiments soon became a kind of manual for local consumer net projects in many parts of the country (Boman 1983). When people connected their own very local text-tv channel with early home computers, or video cameras to their own cable net in home areas - an ability to act even

⁷ www.npt.no: 2002

with advanced technology was manifested. The result was a new self-confidence which has had far-reaching consequences.

Local broadband had thus been shown to be a matter for ordinary people. Eventually, this fact also reached political decision-makers. The importance of local participation and influence was recognized by a surprising political consensus, including parties from both the right and the left. The people's rights to own, control and utilize such networks is confirmed by the present telecom- and media legislation, for example the national Regulation for cable- and telenets⁸. The Norwegian Parliament step by step has strengthened such principles since the 1980s, most recently in the decisions over the State Budget 2002-2003. It has for instance provided local nets with the right to payment from external providers, covering the expenses that the consumers have paid for their own access nets.

The independence of these nets makes it unnecessary for new providers to invest in and build new parallel access-nets in users' buildings or grounds. The principle of user net ownership thus does not lead external providers into the prize-problems frequently found in so-called 'local loop unbundling', where they hire access nets owned by other providers to obtain transport of their competing services and offers to the consumer, but where the net-owning provider in practice controls prizes. The Parliament has underlined the long-run national economic advantages of user/consumer-net independence.

"A net of our own"

Typically local net experiments would start from a question: Do we really have a net of our own? Can it be used for our local information? How can *we* produce it, ourselves? How do we connect to the net? Once the possibilities were documented, many kinds of uses were initiated. The Commodore 64-s and other home computers were rapidly turned from children's game machines into local, networked information machines (in the early 80s youngsters over puberty still did not understand or show much interest in computers and networks). When such experiments started at Romsås, Oslo, for instance, - immediately - heaps of youngsters under 13, the only ones with competence on such equipment appeared as nearly glued to the machines to write an electronic information-channel on the net of their housing area. Video cameras were extensively used to document local activities in the area and connected to the network.

The activities had many kinds of implications. The morning after a family's member had been shown on the screen, mothers could be seen on the balcony, chatting with passing neighbours, even in quite cold weather. Artists in the area could show their art pieces on the net to neighbours that had known little or nothing about them before. Thus the content was produced by the local people for themselves, with equipment found in the community, and transmitted over their own network.

Later on, when a Norwegian IT-company had produced a special modem for Commodore 64-machines, a new functionality was developed in the consumer-owned cable systems, by connecting them to the national telephone system. Thus they could communicate for instance with university- or research data bases, with their housing organisation, etc. They could even engage and interact directly with other consumer-

⁸ Ibid.

owned networks around the country: – these became the first national inter-connections of cable nets in Norway. The cable tv-monopolies were not able to transmit nationally (and still hardly are). But the consumers, by using their nets autonomously, could do things that big companies could not.

The projects also created a demand from the consumers for technology that could widen their choice and thus reduce the dependence on monopolies or dominant providers. Some projects were carried out to test and document the applicability of AM-links, MMDS, etc., which were later authorized and legalized by the Norwegian Telecommunications Authority. Several of these processes have been studied, in research based on qualitative and quantitative methods (Boman 1988a).

This kind of opening media emerged in a far more decentralized way than the official de-monopolizing of broadcasting by legislation 'from above' - Norwegian "local tv" projects, which covered large areas like whole cities from 1984 on. These official activities could not be based very much on people with media-education or training in the school-system, as such education would lack, and was only available in the internal training system of the broadcasting monopoly.

The grass-root activities in the housing areas therefore generated experience that was also frequently utilized in, and also lead to expanded activities within the official/licenced local-tv. Activists from housing area tv were even recruited to national broadcasting, as when NRK got profiled youth tv program leaders from a housing net in Trondheim. Such recruitment into more centralized local and national systems could be found not only on the program side, but also on the net side. Here activists from housing nets were recruited by the Telecommunications monopoly when it started building its state cable tv company, (in 2002 Norway's largest) in the late 1980s. New expertise was generated from beneath, not from above.

The improved consumer self-confidence - as owners and users of their networks - is very important in these processes and has had consequences for later organising and bargaining activities in media questions. Users/consumers over time are varyingly active and passive in their uses, according to temporal variations in their needs. Their ownership of local nets, however, provides them with a possibility to decide for themselves the extent, timing and forms of their activity. The housing organisations and consumer cable organisations, like the national Association of Consumer Cable Nets, now also take part in central decision-making processes in Norway in the telecommunications area.

An extensive material on the development of grass roots utilizations of broadband systems has been gathered, especially by MediaCulture, a network of R&D in new media, which started the local net experiments in cooperation with local housing organisations. MediaCulture emerged in the late 1970's, from within a university and cultural milieu, including scientific-, artistic-, communal and other activities (Boman in Lundby&Stensø 2002). The R&D activities also included local and satellite broadcasts of video and computer art in the 1980s and 90s: 'The Media Art Gallery' (Boman 1988b). Later research transmissions on the 'Knowledge Channel' (Kunnskapskanalen) are an extension of this, - including cooperation with the national television (NRK) of

broadcasting first on NRK Channel 2 since 1995, later on Channel 1⁹, Knowledge Channel also includes net/streaming of programs from university servers.

Local user-nets, the last mile transport of digital television and services, and the costs of it all

The local networks have been necessary for local reception of television from its early days in many countries, due for instance to landscape factors, during the analog period. They are also relevant to the very possibility of constructing a national terrestrial net for digital television, for its 'last mile' transmission. (This type of net has been discussed in several countries. In Norway no final decision has been made, so far.) Even in the case of a terrestrial DTV net, the costs of a 100% coverage by air transmitters would be prohibitive in countries like Norway.

Maximum terrestrial DTV coverage in various countries thus economically could depend on a cooperation between a DTV terrestrial net and local nets reducing a large number of local air transmitters that could otherwise be necessary. Consumer ownership to local nets here provides possibilities of local users cooperating with a DTV terrestrial net. It also turns such a net into a provider that may increase competition in areas where electronic provisions to local consumer nets are previously monopolized. In such a perspective, indications of a possible dialogue between potential terrestrial net providers and local/consumer net organisations in Norway could be found.

There is also an economic aspect of digital television services. This is already appearing, for instance with the prizes of large amounts of digital tv channels delivered by large trunk cable companies. As the capacity of the cable nets increases more than 4 times with digital formatting of services, one might expect that prizes, for instance per service or channel could be reduced by digitalization. But that, so far, does not seem to happen, at least not to the degree of capacity increase. Today increasing amounts of bank-, social-, public-, leisure-, education and services are closed or only accessible via the net.

The development of prize levels on net services thus are important questions of future costs of living for ordinary people and even national levels of costs. This means that consumers' possibility to reduce costs, for instance in real, not superficial competition are important. Preliminary studies indicate prize reductions on service provisions of more than 20% when users/consumers are able to bargain from locally integrated user-owned nets in a neighbourhood. Thus the consumer and national economic advantages of user/consumer-net independence underlined by the Parliament thus are also related to the emergence of digital television and services. This independence may strengthen local activities and interaction, but it thus also is relevant to a question sometimes overlooked: the costs of it all.

National broadband strategy and user-owned nets

National broadband strategy is a central discussion in many countries, each one wanting too be the world's first and fastest. In Norway the practical strategy for several years largely has been one limited to support for network construction within sectors: - like "All schools on broadband!", "All libraries on broadband!" This does not solve the

⁹ www.nrk.no/kunnskapskanalen

problem for pupils or people who have a fat pc at home, but with no efficient broadband connection. After years of talks about broadband, local communities generally are still not *electronic* communities, but divided into sectors. The housing net organizations, however, with their nets covering a considerable number of homes, have started to experiment with integration, like with radio access technology to supplement their own networks with new capacities and functionalities. This activity could quite easily cover even schools, libraries, other institutions and businesses that have only sectorized nets, so far. Thus local consumers might contribute to a local electronic integration and community life, in ways that other actors have not been able to.¹⁰

The potential of consumer-owned nets to further develop and advance broadband systems is being verified in current projects where new technologies, such as high-capacity internet via neighbour-hood radio-access systems, are being applied and integrated with various parts of the local community. In such systems the providers could not simply control the consumers by their EPG, because the consumers could also buy one or more other provider's services into their own access-net, and thus break down monopolies.

Towards a bottom-up strategy of communication research & development

Local self-confidence also may be important to local business, it may even increase possibilities of developing local net-based products, tuned not to a set of hypothetically constructed needs, but to the needs checked by the people/the customers in their local area. The problems of obtaining local broadband development, practically, not only proclaiming it, may thus increase the interest in R&D work from various sectors of society, from local housing organisations, institutions, schools, businesses, administration, etc.

The research strategy could be based on practical experiment designs, including both quantitative and qualitative methods in data collection and analysis. Various theoretical approaches could be applied, such as those provided by theories of communication and social interaction (Boman 2002).

New media and network development could enrich life or, as well, lead to problems in local communities. Media projects involving local consumer networks could provide important possibilities of studying these phenomena in practice. Local access nets in the Nordic countries are, or could be, owned by the users/consumers according to a principle that who in practice pays them has the right to own them, which is ordinary with other parts of property. This means that practical R&D-projects starting 'from beneath', from where the people are and with their own resources, could be a part of a fruitful research strategy in this field. The research could focus on and even contribute to the traditions of local influence and democratic structures in the Nordic model in its changing towards a communication-based society.

¹⁰ The author is conducting a study of this at InterMedia, University of Oslo, that includes practical experimentation.

[community contexts]

If we think of the television as a social medium, communities and cultures of use become a key interest, which also has relevance for participatory or 'prosumerist' approaches to digital television development.

The papers in this section discuss the community aspects of digital television: technology "super users", fan communities and game enthusiasts are given as examples of social, active television consumption. Community aspects are also visible in the new programme format of "tv chats" which brings aspects from Internet chatrooms to an sms-based television show.

Olli Sotamaa, *Developing audiences: a community-oriented point of view*

It is obvious that the new interactive television services will affect the way we watch, use and think of television. Along with the new services, the existing and developing television user cultures also have an influence on what kinds of television content will succeed and what forms they will take. With the onset of digital television, changes in user behaviour are to be expected, just like the introduction of remote control led to rapid channel changing (the ‘zapping’ phenomenon). The changes in television watching habits can in turn lead to changes in production: the zapping phenomenon led to changes in the design and placement of commercials and greater segmentation of content within programs (Carey 2002, 1).

Interactive television has been mostly addressed as a media technology and as a collection of programmes and services. In the following I try to give a brief overview on the subject from the point of view of “media-active” user communities. Already the cultures attached to analogue television include many forms of user activity. User communities of any new technology tend to invent new means, functions and meanings through a “creative misuse”, and my argument is that this holds true also for interactive television.

(Inter)active users

The most common myth attached to interactive television is presumably the statement that “People don’t want to be interactive, they simply want to watch television”. Although heavily criticized, the claim has some truth in it since no one seriously expects that with interactivity, the users of television all of a sudden transform into a group of constantly active creatures.

On the other hand, media researchers have already for years emphasized the active nature of all media use. Even the elementary acts of reading and interpreting television texts always demand various forms of activity. Television has a variety of roles in the lives of different individuals. Expressions such as “electronic wallpaper” depict television as a passively consumed colourful background, but this kind of television usage allows various other household activities to be carried out simultaneously and thus not necessarily passivates the viewer at all.

Jens F. Jensen (2001) has analysed the information traffic patterns of television and suggests a four level typology of transmission, registration, consultation and conversation. *Transmission* equals the one-to-many communication of traditional broadcast media where the visible activity of the individual consumer is mainly limited to changing channels. On the other end of continuum, *conversation* refers to a two-way communication, where individual consumers produce information and the means of distribution are divided equally. It is probable that television’s interactive forms will at least partly maintain the transmission function while also covering information patterns more open to forms of user activity.

In addition to the different levels of activity offered by service providers, also the “modes” of individual television viewers change from “I want to be told a story”, “I want to search for some information”, “I want to play” and to various others. Thus the

functions and contexts of television use differ not only across user groups but also across the various modes and situations of the single user.

During the last decades television has become more individualised. There are many reasons for this, such as the increased numbers of television sets per household. Television watching is no more limited to living rooms but televisions have found their way also to bedrooms, children's rooms and kitchens. Multiple sets allow members of one household to watch different channels simultaneously. It is obvious that the increasing number of channels makes people more aware of the alternatives and therefore partly create the need for a personalized television experience. On the other hand, remote controls have made it possible for consumers to create highly personalized media mixes. Alongside personalized television people also still watch television together with other people. In the following I will briefly point out the importance of understanding the social nature of television culture.

Social television

From the early days of television watching the programmes have included various active elements: these haven't been so much about human-machine interaction but about a vivid interaction with other television watchers. In many cases the pleasure of television watching is deeply entwined with discussing and speculating the programmes with other people (see Gauntlett & Hill 1999, 128-130). Television programmes are chatted about extensively at work, at school and within families. Sharing and negotiating the meanings attached to television contents seems to be a crucial part of television culture.

As mentioned earlier, watching television together is still a popular and in fact an evolving phenomenon. Larger screens, home theatre systems and game consoles connected to television sets gather people together to consume experiences. For example sports programmes – especially live broadcasts – bring people also to public environments like pubs or sports bars to watch television.

These social watching situations are often based on a constant commentary of contents. Watching a match together with other supporters or speculating the future events of serials with friends make the whole situation very different in nature. Co-watchers for example educate each other during the show in serial history details and latest cast gossips. On the other hand, watching programmes together with their children allows parents to monitor and practically decide about suitable contents. Channels are changed less frequently and usually after some negotiation. Some situations also include elements of power struggle culminating in the possession of remote control.

Lately the activities people engage in while watching television have also become more mediated. PCs with broadband internet connection are increasingly positioned in the same room and also used simultaneously with television (Carey 2002, 8). Instant messages and SMS messages are being sent and received. The messages may refer to programmes watched but at least as often they do not. From a concept development point of view it is plausible that new dimensions into this kind of sociable viewing would be brought by new kinds of social interaction applications which – more or less tied to programme content – would allow the user not only to participate in simple polls but to share opinions with friends. These kinds of applications – potentially implemented also as decentralized systems utilizing personal mobile devices rather than

remote controls – would possibly have closer resemblance with the IRC channels with their permanent communal structures than the existing forms of television chats.

Community-based content production

Digital media users often create new and alternative ways of using products. The functions and meanings are thus produced in a dialogic relationship between designers and users. The eventual forms of interactive television depend on a complex bundle of economic, cultural and social factors, but the actual practices and patterns of television use are created by individual users and user communities. User groups such as home theatre enthusiasts and active console gamers already connect different appliances to television set, optimize settings, and to consume diverse forms of digital content applying different levels of interactivity. The practices created in these communities can shed light also on the evolving cultures of interactive television.

In addition to new interpretations to media texts and new patterns of use, television users also produce media texts of their own. Community-based media productivity has been examined profoundly in the area of fan culture research. Fans write their own stories based on the characters and milieus of television series and paint pictures of their favourite characters. Before, these self-made media texts were circulated inside the fan communities but today they spread effectively through internet newsgroups and fan websites. The programmable nature of digital media also encourages new forms of activity. For example the gaming communities use game engines and field editors as tools for storytelling. Abercrombie & Longhurst (1998) claim that in fact even the “ordinary” television viewers act more like fans than has been initially thought. Probably interactive television will not make every television user a producer of their own station but obviously some demand for user-driven “narrowcasting” exists.

Some characteristics of hobby-based production can already be seen also in analogue television. For example the independent Finnish cable channels Moon-TV and ATV broadcast popular programmes that consist of material of very low technical standard. These short films, music videos, skateboarding clips etc. are mostly produced by enthusiasts, not formally educated professionals, and they differ dramatically from mainstream tv not only in their technical standards but also in their aesthetics. These developments open up a set of questions. Are we witnessing a cultural moment where the boundaries between work vs. free time and professionalism vs. hobby interests are becoming blurred? Or is the media industry soon to absorb independent community-based media production into an unquestionable part of its workings? (Herkman 2001, 201-203).

In conclusion it seems that television watchers are ready to compromise on features traditionally attached to digital television (improved picture or audio quality) if they correspondingly receive contents that are relevant to their everyday situation. These relevant contents may involve anything from local news and programmes in one’s native tongue to content connected to the viewers’ dearest interests.

Tanja Sihvonen, *TV chat communities*

The first TV chat programme in Finland was broadcast on June 5, 2000. It was an experimental broadcasting by a new, urban cable channel called TVTV!. The idea of chatting on TV probably came from the fact that between 1997-2000 the amount of mobile phones in Finland grew unexpectedly. The service most used by the new mobile phone users was not, quite surprisingly, simply talking on the phone, but text messaging.

The amount of sent text messages (SMS) in Finland started to increase at an unprecedented rate after the mid-1990s, as the SMS service was automatically included in every new mobile phone model. In the year 2000, there were about a billion text messages sent in Finland (Kasesniemi & Rautiainen 2001). With the advent of new phone types that have an in-built digital camera, it is hoped also multimedia messaging (MMS) becoming increasingly popular.

The concept of TV chat

The TV chat is much like a real-time chatroom on the Internet, except that it works through the combination of TV screen and mobile phone. In order to take part in the chat, you send a text message to a specific number and after a short delay you will see your message rolling on the screen. The TV chats (there are several of them nowadays) are hugely popular in Finland, and especially on weekend nights there may be tens of thousands of messages coming in to one programme.

In two years' time, the TV chat programmes have specialised in, e.g., dating. There are also hosted chat programmes, called "chat shows", and shows with visitors and specifically chosen topics to discuss about. In addition to the "pure" forms of chat programmes, there are more conventional forms, such as episodic TV series where the chat contributes to the audio-visual narration and the real-time discussion. These programmes have thus far been mainly of the so-called adventure genre, in which young men test their limits (eg. *Sixpäk*, *Extreme Duudsonit*). Chat "applications" can also be linked to so-called mobile game TV programmes, which, again, work through text messaging.

In addition to the cable channel, two national and some local TV channels have taken the TV chat on their agenda. The TV chat is on once or twice a day, on a regular basis, on two national-scale commercial networks. Despite the tightening competition by other networks, the cable channel *Subtv* is still the most ambitious developer of the concept of chat.

Chatting on the Internet and TV

The mediated chat is, of course, not entirely a novel innovation. Various forms of conversation have been carried out on *message boards*, *listservs*, *Bulletin Board Systems* (BBS) and chatrooms on the Internet and its predecessors (Rheingold 2001, Abbate 1999). The most influential services of this type have been the ICQ (mainly in the United States), and the *Internet Relay Chat* (IRC), which was actually developed by a Finnish technical student, Jarkko Oikarinen, in August 1988 (Oikarinen 2002).

Although the internet chats have functioned as important and ground-breaking predecessors of chats on television, there are still major differences to be seen. One must take into account especially the differences between television and the internet as *media*. The television is a wide-spread mass-medium, with a 50-year history of entertaining and informing the nation, whereas the internet is a global network of computers, intended for active, individual use at work and at home.

When further comparing chats on TV and on the internet, it is obvious that the variety of different chat types is much larger on the internet. But because there are hundreds of thousands of chatrooms on the internet, it can be argued that one virtual place cannot have a similar significance as the TV chat, which can be broadcast on the national network. Internet chats are naturally transnational and the backgrounds of chatters are more varied than of those people participating in TV chats. Then again, there may be numerous people following TV chats that never appear in any ratings.

From the fact that anyone can watch TV chats follows that the messages have to be pre-checked before entering onto the screen. The messaging is thus carefully monitored and moderated. The “platform” for TV chat programmes is provided by the TV channel in order to get the younger viewers committed to the channel. Therefore it is in its interests to promote what could be called as sensible conversation, which can last for days, even weeks. Besides the chatters, there is thus another party involved, which takes the responsibility for the chat programme in the end.

Another difference between the internet and TV chats relates to the cost of chatting: taking part in a TV chat costs the user a lot more than joining an internet chatroom. The price of one message to a TV chat is normally 84 cents, which is a considerably higher amount of money compared to the cost of a regular text message, about 10-20 cents. Most of the revenues of chat messaging go to the telecom operators, but it is clear that TV channels benefit from chat programmes as well. The internet chats are usually free of charge, although you will have to pay for the connection to the network.

The messages and people’s motives for chatting

It is interesting to look at what kind of messages people send to TV chats, because it tells something about the things that interest the wide audience. The other question is, what purposes does seeing the message on the screen serve for the viewers? The TV chat is like a treasury of anthropology – always current and in a material form – that appears on our screens every day.

TV chat messaging can be interpreted as self-expression, a form of communication and as social interaction. Some messages are clearly intended to raise discussion on a single topic. They can be provocative or otherwise thought-provoking, and they usually very effectively promote the conversation. There can be several discussion threads going on at the same time, and the same people can take part in more than one discussion at a time.

Other messages are more like remarks, observations, or even aphorisms in nature. Their function is not so much to raise dialogue as – according to my interpretation – provide the sender with a feeling of inclusion in the community. If your message is positive in tone, it will get a warm welcome from the moderator and other chatters. Since your

message on the screen is a representation of yourself, you get the feeling that it is really *you* who gets the affectionate response and the sense of inclusion. Therefore the messaging can be very rewarding.

Another motive could be that it is simply fascinating to see your message, your “thumbprint”, on the TV screen that so many people watch. It is thus a matter of appearing on a public arena, without having to show your face.

In two years’ time it has been realised that simple chit-chat is the core of chatting and one of the main reasons for participating in TV chats. On the other hand, TV chatters tend to develop new kind of aesthetics of interaction, which is interesting to follow. The social context sets rules for proper use of language, decent behaviour, and acceptable topics for discussion. These are being re-negotiated in the situation of “crisis”, if, for example, someone blatantly violates the contextual code of conduct.

At the same time it has started to become obvious that TV chatters would be willing to think of themselves as members of a group, a “tribe”, thus strengthening the social aspects of chatting. The TV chat therefore functions similarly to the chats on the internet. Regular members of the chat make out a community which can – using Howard Rheingold’s term – be called a “real-time tribe” (Rheingold 1993). The chatters’ sense of belonging to this “community on-line” is dependent on their fairly regular practices of interaction. As these practices have been formulating for a few years now, they may be treated as examples of a new kind of user-perspective towards television and interaction. Thus they also serve as a practical precedent of a potential future usage of the interactive digital television.

[policy contexts]

Digital television has been mainly driven by national and European policies relating to technology and market strategies, carried out by actors such as television and telecom corporations, hardware manufacturers and standardisation committees. This section takes a closer look at how the lacking user/audience/citizen perspective affects digital television development on the national (Swedish) and European levels.

Pernilla Severson, *Dialogic policies for public service*

The theme for this seminar is “Digi-tv – television as a *consumer* platform”. We have so far listened to Frank Boyd talking about how the BBC employs a *user*-oriented programme development. Here television as a consumer platform is concentrating on the producer-user interaction. We have also heard researcher Olli Sotamaa talking about developing *audiences* from a community-oriented point of view. Here television as a consumer platform is focusing on the audience and applies an organic approach, the growth and shaping of an audience.

In addressing the topic of “Dialogic policies for public service” I speak in front of you as a media studies researcher with a special interest in “consumers”, “users”, and “audiences”. In the complex process of television digitalisation my interest is in terrestrial digital television, and in situating the end-user of digital television within the media policy framework of public service. This involves a proposal to look at the end-user as something more than a merely rhetorical construction of democratic and commercial discourse.

The idea is to put forward two issues for us to discuss:

Is it desirable to have an end-user-oriented public service digital television?

How is it practically possible to make use of end-user-oriented public service in the digital future?

To provide some background for the first issue, I will give some examples on the lack of an end-user-oriented public service digital television (DTV) in Sweden.

The lack of end-user-orientation in public service DTV: empirical illustrations from Sweden

Sweden does not have an end-user-oriented public service digital television today. At least this is what becomes visible when one studies the annual report and accessible DTV audience studies of the public service TV company Sveriges Television (SVT). The lack of an end-user-oriented public service digital television is also clear when one examines political documents from the Swedish government and the Parliament. DTV audience studies, those made by audience measurement companies as well as in the academic setting, show a lack of a genuine end-user-oriented approach.

SVT annual report

The annual report represents the company’s face, a polished surface the company wishes to show the world. How is the end-user, that is the audience, mentioned in these documents? The latest annual report for Swedish public service broadcaster SVT (Sveriges Television AB Årsredovisning 2001) opens encouragingly. SVT starts with eight New Year resolutions to their audience:

More TV programmes, produced cost-efficiently

- Provide Sweden's best news, even on the Internet
- Show more children's TV programmes every Saturday
- Show sports
- Have diversity, i.e. to consider that people are different
- Show more movies in the wide screen format
- Increase the amount of Swedish TV programmes with subtitles
- Open new ways for a dialogue with the audience under the slogan "SVT is here for you" (in Swedish "SVT är till för dig").

Some reflections on this list are in place. Firstly, concerning the audience, it is not clear whether these New Year resolutions are a response to audience needs. Is it the audience that asks for cost-efficiency? Or is this number one resolution in fact a response to government policy?

Number eight on the list is about dialogue. A relevant question to put forward is, why the new ways for dialogue are only exemplified by the launch of an Internet chat room? Why isn't this resolution stating "We will work for seeing our audience, not as receivers, but as important participants possessing knowledge of strategic value for developing the digital future of public service"? If the annual report had a resolution like this, the readers, who probably not are the general public but rather media professionals and policy-makers, would get an indication that SVT takes its audiences seriously.

The annual report also has sections specifically dedicated to the audience. SVT declares that audience behaviour in the digital future will change. It will be a fragmented audience where personalised usage of TV is common (with for example PVR) and where the TV and the PC partly replace each other. Less and less people will use only terrestrial DTV.

Digital television is discussed in different areas of the annual report. In the resolutions it is only mentioned under point 5, where SVT promises to launch at least one new digital TV channel. No interactive services are referred to.

The annual report also presents SVT's digital strategy, where issues brought to the fore by new digital technology are listed. These concern questions such as:

- Which platforms to be involved in
- What forms of co-operation are possible to reach web users
- What technical and content related issues support public service values: access, independent programme production, diversity in content
- How to counteract a 'digital divide' in the Swedish society

SVT's vision includes: a simple decoder for everyone paying the licence fee, one operator for the terrestrial net, one EPG (Electronic Programme Guide), and one or more digital channels. No interactive services are referred to here. The suggested simple decoder is rather a counteract on interactivity.

A special feature of the digital TV strategy is referred to in the *About the board*-section of the annual report. It is called “den digitala allemansrätten“, the digital everyman’s right. The Swedish *allemansrätt* is a legal right of access to private land (open country), and for SVT it provides a metaphor of uniqueness, openness, accessibility and something worth protecting. No strategy to reach this is presented, but we learn that it will be developed under 2002.

According to SVT, interactive television is so far of low priority for the audience. It is interesting that exemplifying interactive services SVT refers to the use of mobile phones to send SMS to TV programmes. There are no comments on usage of digital television. Instead we learn about user statistics of teletext and Internet.

The annual report also contains sections on audience studies. From them we learn that audience ratings are interpreted qualitatively: if people choose to watch TV, they watch what they perceive as being good TV programmes. External companies have also made audience studies with the task of charting people’s attitudes and general perceptions on SVT’s content. The results of these studies tell us that values such as trustworthiness, credibility, professionalism, and quality are attached to the SVT. But the results also show that SVT is not seen as very exiting or innovative.

SVT’s annual report doesn’t mention research and development. But I have got hold of one example of a DTV audience research.

DTV audience studies

So far I have talked about SVT. Audience studies made by SVT are oriented towards attitudes and ratings. Other investigations have been made for example quantitative studies where people are asked over the phone on their intent to purchase digital TV and access to and usage of digital TV.

These investigations have traditional problems that relate to the quantitative method: when you already have decided on the aspects to be examined, the answers you receive are only a distribution of percentage amongst these aspects. The method is therefore not suitable when there is a great deal of insecurity concerning the object of study, which is the case of digital television!

Trying to look for an alternative to these market studies I have only found one study. This can be a result of inaccessible studies, but judging by the annual report this is unlikely. Instead of the SVT the alternative study was realised by another actor in Swedish public service television, the Utbildningsradion (UR), an institution with an educational purpose.

This study was a co-operation with the company Boxer, responsible for offering and marketing terrestrial digital TV programs and services (www.boxer.se). The purpose was to find out how users experience UR’s new interactive services. A pilot study was made where four couples were taped while using the service in a special room at KTH, the Royal Technology University. They were given an assignment, a motivation for using the service. They also got instructions how to use digital TV. After this they filled out a questionnaire, which was followed by a discussion.

The actual experiment was carried out in the summer of 2001. Subjects for the experiment were recruited on TV, by asking people to report about their interest on

UR's website. This probably influenced that only certain types of people were included in the experiment. People were chosen according to demographic variables, and after being selected, they were able to borrow a decoder. Feedback from the respondents was collected only through a questionnaire. The results were depressing. A lot of people were not able to participate in the experiment because they could not receive the digital signal. Others dropped out because they did not manage to install the decoder. Because the experiment took place in the summer time, a lot of people could not see the programs or use the interactive services. A lot of negative critique regarding the content was received due to the withdrawal of the Swedish commercial media company MTG's channels TV3 and ZTV, two channels which are today distributed through satellite and cable. The withdrawal came for reasons of political disagreement and probably of commercial competition.

Concerning the purpose of the study, to find out how users experience UR's new interactive services, the results showed that:

Only 39% had ever used any digital services

The most common motivations for use were curiosity, then more fact, then more information, then guidance to more information. But... these were the only alternatives to choose from in the questionnaire

Satisfaction ranked at 3 out of 4

Perceived easiness to navigate was quite good to very good

The open answer fields showed positive reactions, often formulated as "fun"

The Government and the DTV audience

The lack of an end-user-oriented public service digital television is also clear when examining political documents from the Swedish government and Riksdag (the Parliament). I will illustrate this with the concluding report from the digital TV committee (SOU 2001:90), where audience studies are called 'consumer investigations' and are dealt with on altogether ten pages. The studies referred to here are:

A pilot study by myself and Lars Uhlin, consisting of in-depth interviews with 15 people (Jonsson and Uhlin 2000)

A market analysis by Temo and Message Plus Media AB, consisting of telephone interviews with 550 people

A consumer analysis from the Great Britain by Office of Telecommunications, consisting of telephone interviews with 2 070 people and supplementary in-depth interviews with 250 people

A market analysis ordered by SVT, Senda and Boxer and carried through by Measurement Company GfK, consisting of face-to-face interviews with 460 people

For the government, the DTV audience is depicted as consumers inhabiting a market or as citizens, for whom public service is an important tool for democracy. No effort is made on pointing towards the importance of paying attention to the consumers'/citizens' needs and wants, and how this could be done. There are no examples of audience studies carried out by the government. The concern for the public is limited to talking about access. Nowhere is there to be found a discussion about

public influence. This is surprising, because subscriber influence in regard to cable television is on the government agenda (Ds 2001:52).

Audience measurement companies

Audience measurement companies have mostly used quantitative methods for their DTV audience studies. I already mentioned how quantitative methods will get the answers you ask for. I also want to stress that people have trouble answering on issues they are not familiar with. With a lack of knowledge or experience of digital TV the respondents' answers are based on information acquired from other sources. This means that the media images of digital TV as a failure (in magazines) or as something good (in advertising) influence the answers.

Audience measurement companies are important for all digital TV actors. SVT, the government and others all use their services. The trouble with audience measurement companies lies not in their professional competence but in the way their results are used by the commissioning companies.

The results only show a percentage distribution on prescribed features and perceptions, but nevertheless they are treated as mirroring peoples true intentions and behaviours. If the proposition "I will buy digital TV if there will be more interactive services available" gets "Totally agree" by 70% of respondents, adding interactive services is supposed to be the key to success. This is done without considering that some people may not know what the interactive services are, nor have they used them.

Intention does not equal behaviour. This may seem a self-evident conclusion but is in fact a common mistake. The company Mediavision, specialising in digital TV development analysis and an important opinion builder in Sweden, has after two years (in Mediavision *Back on track?*¹¹) revised its earlier prognoses (see SOU 2001:90, 103). The prognosis was revised from 1 280 000 to 920 000 households to have digital TV by the end of 2002.

For audience measurement companies, the audience is something to make money on. There may be risks related to the fact that the company commissioner of the audience study will be delivered what it wants, for example a positive analysis on interactive services.

Academic research on DTV audiences

Academic research on DTV audiences is rare in Sweden. What is being done is studies on media access and usage, where DTV figures only as an element of the media environment. These are exemplified by the annual studies by Nordicom (called *Mediebarometern*) and by SOM-institutet.

Mediebarometern is an annual examination of how many of the Swedish people on an average day have used certain media. The purpose is to describe tendencies and change in people's media usage, and the method used is questionnaire-based telephone interviews. The academic institution NORDICOM-Sverige, is responsible for the study. Financing comes from the Ministry of Culture (30% of cost) and from interested parties

¹¹ see description on www.mediavision.se

and contributors such as media analysis companies, newspapers, SVT and so on¹². Statistics available on access to digital television show a 5% penetration for the year 2000 (Carlsson and Facht, 2002).

SOM-institutet is linked to the University of Gothenburg. Every year a selection of the Swedish people receives a questionnaire (22 pages) by mail. The questions concern mass media, politics and society, energy and the environment, libraries and so on. The statistics available on digital television show a 6% penetration for the year 2000 (Holmberg and Weibull, 2000). No qualitative studies are carried through.

This was quite an extensive portrait of how Sweden lacks an end-user-oriented public service. What follows now is a discussion on why this is a problem.

Why the lack of end-user-orientation is a problem

Why is the lack of an end-user-oriented public service a problem? I have showed that neither the public service company SVT nor the government perceives this as a problem. No effort is being put into the DTV audience as a strategic resource for the development of terrestrial digital television. How is it possible that the two institutions that should care about the public the most are not doing this? Possible arguments from the SVT could include:

- We are doing things in a way that is acceptable for us. It is enough with ratings because:
 1. SVT stands rather strong in the competition with commercial channels. We want to give people what *they* want which is what *we* want for public service (many viewers)
 2. The politicians feel that we are accomplishing our public service mission, so we do not have to change to get the financial and cultural benefits!

Possible arguments for the government could include:

- What do you mean with an end-user-oriented public service? According to the guidelines in the public service policy (diversity, quality, no ads) the public is well served by PS in Sweden.

And a continued discussion could go like this:

- *But I mean user-oriented, in the sense of encouraging a certain way of studying audiences?*
- In that case it is up to the PS broadcasters. If we interfere with the operation of PS, we try to control PS, which is not what they or we want to do.
- *But what if the PS broadcasters are only using ratings and measurement that foster a commercial way of thinking about the audience/or the traditional paternalist attitude "we know what is best for you"?*
- Then that would be bad.

¹² www.nordicom.gu.se

One common way of dealing with problems like this is to turn to expertise in the form of research. The public service researcher would explain that an end-user-oriented public service digital television is desirable in the name of democracy, but difficult or even impossible because all audience studies are instruments of power (see Ang, 1991).

If I as a researcher, in a humble way, try to explain why an end-user-oriented public service digital television is desirable, then I maintain that without this orientation society will face economical, social and cultural losses. We need it to save money and to take care of citizen rights!

The economic aspect is about digital television becoming attractive to consumers. It is costly to parallel distribute both analogue and digital terrestrial television; to save money a swift analogue closure is important. The liquidation of the analogue terrestrial net is possible, according to the digital TV committee, in the year of 2007. Several actors want liquidation earlier. SVT wants to stop paying double distribution costs. But this presupposes that many people get a digital decoder.

The termination of the analogue terrestrial net is followed by democratic demands of an almost total distribution of digital TV. The problem is that only about 1/5 of the Swedish people has done this so far. Socially and culturally, the Swedish society is dependent on TV. About 80% watch TV every day¹³ and use TV as a source for entertainment as well as information.

Knowledge about end-users is badly needed, but scarce in Sweden. Audience/user studies so far show encouraging objectives but are failing in realisation, and in the ways the results are used. These imperfections have serious consequences for digital TV development because the result is a big part of the base for action plans. Realistic perceptions of a complex reality are missing. As mentioned before, one common erroneous claim is that user intention is the same as behaviour. Other problems can be pointed at, such as:

Money blindness: A digital TV purchase can be hindered by other things than the price. There are also technical, social and cultural obstacles. Even today it can be technically impossible to receive terrestrial digital TV. Lund, where I inhabit an apartment block on the 9th floor, only has status two out of four according to terrestrial operator company Teracom's scale for estimating quality of receiving terrestrial digital TV. I therefore need a large outdoor antenna on the balcony. Social obstacles can involve resistances from within the household (family members) but also the landlord. One technical hinder that is linked to the social and cultural is that digital TV is perceived as hard to understand and use. People return decoders because they are too difficult to install. If there is no technically competent individual in the household, this can be an obstacle for digital TV purchase.

Neglecting living conditions: The case of apartment blocks is interesting here. Both the market and the government have neglected apartment block inhabitants, who could have interest terrestrial digital TV as a choice besides cable and satellite which are now offered. There are signs that if people have the possibility to choose, the choice will be terrestrial distribution. About every fifth Boxer subscriber is a former satellite customer. Apartment blocks are not marginal in Sweden: about half of the Swedish people live in

¹³ www.nordicom.se

housing co-operatives or in flats with right of tenancy¹⁴. Sweden has about four million TV households. Of them 31% have terrestrial TV through communal aerial or roof aerial, 49% receives through cable and 20% through satellite (owner and co-owned parabolic aerial) (RTVV, 2002). The neglecting is evident in the fact that the process of buying and installing a decoder in all situations has been treated as a question for the single household. Only in 2002 Boxer has noticed apartment blocks as a target group. The government discusses the option of giving all license payers a coupon to get a free decoder. But in apartment blocks there is also the need to financially support upgrading of the communal aerial and cables.

An end-user oriented public service digital television development is both desired and needed. There is urgency for dialogic policies for public service, which would show a genuine interest in the public. The traditional "we know what's best for you"-model has become obsolete. But, how could a new dialogue between end-users producers and the government be reached in practice?

Is it practically possible to have a user-oriented PS?

The theory of the dialogue among researchers is well known. Bakhtin, one of the most important modern Russian literary theoretic and critic, talks about the dialogic nature of communication. Writing or speaking is always done with an audience in mind. Dialogue is accordingly given a special meaning and is looked upon as a more useful and correct way to understand communication than using the monologue as an analytic starting point. Conversation should therefore be the guiding metaphor.

But this section was supposed to be practical. Looking at the approaches offered by media studies, one way to begin could be to abandon Ang's (1991) reasoning on how the audience is objectified in noble national and cultural ideas. Instead, it could be replaced with Scannell's (1996) description of the relationship between TV and the audience not as a struggle for power, but as a gradual process of adjustment. This would involve that the "Foucauldian" thesis on knowledge as the society's primary power tool (Foucault, 1993) is still relevant. Gathering knowledge about the audience would still be driven by the need to control the audience. But what I want to indicate is that the adjustment metaphor promises more "public" in public service.

The challenge is to survive in the digital future. Without profound knowledge about and understanding for, what the SVT expects to be a changing audience, DTV development can risk routine actions instead of innovativeness. Syvertsen (1997) thinks that ratings are important for more reasons than the direct economic gains of commercial channels. Psychologically the ratings also answer the need to evaluate one's own operation. High ratings can increase the channels competitive power, for example by attracting program rights and talented professional who wish to increase their own market worth. Principally ratings are important because the fear for decreased ratings can threaten licence financing - the viewers' willingness to pay the licence fee decrease together with the ratings.

I want to add the aspect of innovation to Syvertsen's reasoning. With a genuine interest in the audience from the standpoint that it is a dialogic, gradual process of adjustment, inspiration for innovation can be achieved.

¹⁴ www.scb.se

The dialogue can take place in many ways. Today SVT has a test panel method called the “SVT testpilot“, which aims at analysing the last link in the communication process, i.e. the intended viewers' experience of the programme¹⁵. But it is clear that the audience is not invited to participate in the innovation process. Instead, the audiences are seen as test patients for the doctors to try the vaccine on. The hypodermic model is clear.

This approach does not indicate that the organisation wishes to understand the everyday life of people and how TV is integrated in this life. Instead, the meaning of television in peoples' lives is emphasised too much. A dialogue would mean an interest in the everyday life of people, i.e. closeness to the end-users as human beings with a life outside the television world.

The objective of this seminar is to

- Map out research needs and possibilities for consumer-led digital television development and to
- Address the issue of how consumers and consumer organisations could contribute to the process.

What I would propose for general principles to bring more public in public service is:

To cultivate active audience organisations on all levels: Sweden has no TV audience organisations like the Voice of the Listener and Viewer (VLV) in Great Britain that “represents the citizen and consumer interest in broadcasting and works for quality and diversity in British broadcasting“ (www.vlv.org.uk)

To approach the audience unprejudiced and with the dialogue as ideal: DO MORE QUALITATIVE STUDIES!

To have a clear policy about:

- What to expect from audience studies
- How to realise audience studies
- How to use audience studies

A recommendation for further research is to discuss the risk for a “tyranny of the audience”. Too much emphasis on audience studies can foster cynical professionals, with the risk of an inhibitory effect on “creativity”. What happens when we know the audiences wants and needs? Is it just to use it; to follow the audience? What problems can we bump into and how can we solve them?

¹⁵ www.svt.se/hela/ps00/ps2000_text.pdf

Pertti Näränen, *Missing perspectives in European regulation of digital television*

One of the key problems in the development of digital television (DTV) in Europe is that there has been too little focus on the users, the television viewers. The viewers, when addressed, have also been defined too narrowly as *consumers* of one-way services, as fishes to catch, and less as, for example, active *citizens* or decision-makers on state investments. In addition, the public service corporations (at least YLE in Finland) have invested too much on *advertising* DTV to the public and too little on *consulting* the public opinion, to listening to the audience. There has also been a general lack of analytical public policy discussion among politicians on what digital television is actually needed for.

The missing user perspective is reflected on many levels in the European Union, in national governments and within the broadcasters. They all have been too focused on accelerating the early development of the digital television markets instead of considering the needs and interests of the television viewers. (Papathanassopoulos 2002, 247-251; cf. COM (1999)657)

Digital broadcasting started in Europe in 1996 in the atmosphere of 'Information Society Hype' and 'early bird enthusiasm'. No clear regulatory guidance was established, because the EU didn't want to harm the 'natural' development on the market. However, the hasty free market development has not by any means guaranteed a sound economic development of the DTV market, as is demonstrated by the recent collapses of ITV Digital in the UK, Quiero in Spain, Kirch corporation in Germany and the economic problems of Canal+. The only exception to the rule is the successful digital satellite channel BSkyB in the UK, which on the other hand is almost monopolizing its home market.

Missing common standard regulation

The development of digital broadcasting standards is a major problematic area.

The EU left the standardisation of DTV into the hands of an industrial consortium called the DVB Group, with representation from the broadcasters and hardware manufacturers. The DVB Group succeeded in creating a common European transmission standard for satellite, cable and terrestrial broadcasting by the end of 1993, but the standardisation of Application Programming Interface (API) and Conditional Access (CA) systems (so called middleware solutions) proved to be far more difficult. These middleware standards are needed for interactive television (ITV) applications and pay-television (PTV) services. In this area the interests of different players conflicted. It was, notably, in the interest of major pay-TV satellite broadcasters to extend control over their existing old customers in the transition from analogue to digital markets, and not to open the market to new competitors with open standards solutions. (Levy 1999; Näränen 2003.)

The absence of common middleware standards in DTV meant that although broadcasters could *transmit* their digital signals across Europe, audience *access* to those signals would be strictly limited to households equipped with the 'right' set-top box receiver (STB). As a practical result, European DTV markets have become fragmented

into rivalling blocks, operating incompatible STBs even within the same national or linguistic market. In practice, this prevents the viewers from accessing a full range of digital channels and services with one, compatible STB device. No wonder that the early DTV development has been marked by consumer confusion and mistrust in this new technology.

The DVB Group finally succeeded in establishing an open API standard for digital television in July 2000. This Multimedia Home Platform (MHP) standard has the potential to become the common European standard for ITV applications and Internet services for digital television. The problem is, that the different private STB models have already filled the early digital markets, which will effectively hinder open platform development for the next few years. The MHP standard also requires more expensive hardware technology (more efficient processors and Flash/RAM memory) than the first generation STB models – and this also makes STB manufacturers reluctant to start mass production of the MHP standard boxes.

The situation in Finland

Finland announced in 2001 that it would be the first European country to start DTV broadcasting using the MHP standard. In practice this has not taken place as planned, because when digital broadcasting was launched in Finland (27 August 2001) there still weren't any MHP boxes on the consumer market. So the initiative has been lampooned in the press, leading to a seriously damaged credibility of DTV in the eyes of the viewers. Few consumers are willing to invest in a technology that may be outdated when the MHP boxes finally enter the market.

At the moment, more than a year since the start of digital broadcasting, 31000 terrestrial or cable set-top boxes have been sold on the Finnish market¹⁶. The number of digital satellite boxes is 62000. While there are 2,2 million television households in the country, this sums up to a digital tv penetration of under 4,5 %. Most of the digital terrestrial broadcasters are facing serious economic troubles. Of the altogether 13 channels licensed to start digital broadcasting, four have refused to start (all pay-TV channels), two (SubTV and the Sports channel) gain most of their audiences via the analogue cable, and the remaining channels, five of which are public service, mostly simulcast or recycle their analogue content in the digital platform. No new interactive services are yet available for the public. MHP boxes are now entering the market, but without new national or international channels the consumer interest is bound to remain modest.

In Finland, the DTV has been heavily promoted by the government together with Information Society arguments. It has been told that the digital set-top box may well become the everyman's affordable access point to the Internet, public Information Society services and e-commerce. Now, this kind of development is delayed because it was not being supported by feasible strategies nor open access ITV standards on the European level.

¹⁶ This figure is from September 2002. The arrival of MHP-compatible STBs boosted the sales around Christmas and the current figure is appr. 60 000.

Conclusions

The sticky development of digital television in Europe is resulting from a combination of technocratic market optimism, 'digital hype' and insufficient public regulation. The EU Commission and national governments have been keen to accelerate early digital tv development in Europe in all its forms, but without much analysis on what digitalisation is needed for. This hurry has had its costs and can be seen in the low quality of early DTV development.

The creation of technical standards involves not only technology. The process of settling upon common protocols for data interchange is a predominantly socio-economic process, not a technical one. Standardisation, like the development of other technical infrastructures, is a process where consumer interests should be kept in mind and protected from the start – which would also guarantee the adoption of technology platforms by a critical mass of consumers later on.

The regulatory challenges for the future development of DTV in Europe are enormous. How to implement the common MHP standard for second generation set-top boxes? How to regulate new kinds of interactive advertising and sponsoring? What about the Consumer Relation Management (CRM) systems, which may be implemented in the STB to gather information of the channel and service preferences of the viewers? These and many other regulatory issues must be faced when the new revision of The Television Without Frontiers Directive (97/36/EC) takes place, presumably in 2003 (Reding 2002; Sims 2001).

[home contexts]

This section contextualizes tv viewing in the domestic sphere, where television usage is intricately entwined with the ‘moral economy of the household’, the families’ use of time and other resources and their ways of negotiating individual and familial intimacy. The papers present research results from a television betting system trial in Norway, and from a multi-disciplinary Danish research project on multimedia use in the home.

Jo Helle-Valle, Eivind Stø, *Digital TV and the moral economy of the home*

In this paper we will give our contribution to the theoretical and empirical discussion about diffusion of ICT within consumer and household related activities. E-commerce has increased substantially within the business-to-business communication but the success stories in the consumer market are relatively few. In a recent Nordic report on e-commerce within the grocery sector we found that very few actors were involved in this business in all Nordic countries, especially for the supermarkets, and that their market shares are surprisingly low (Nordic Council of Ministers 2000). Internet has not become the expected new trade channel for ordinary consumption. There could be many reasons for this; problems related 1) to the price-level, 2) to the available products, 3) to the design of the homepages or 4) to the distribution process, among others. However, one other aspect could be that the e-commerce companies not have developed their business idea within the framework of everyday life of ordinary consumers (Gronow and Warde 2001).

In this paper we will look at one other sector where optimism, on behalf of the consumers, has been substantial, *the introduction of digital TVs in the home*. This is a reality not yet realised for the vast majority of families and the arguments presented must therefore be treated as what they are: qualified speculations. Our qualifications for speculating are of two kinds. First, we have conducted a small research project on the uses of ICTs in the home context. We placed four families in Telenor's Future House (outside Oslo) where each spent an afternoon and evening testing out two interactive pilots. Secondly we seek support for our line of argument from existing, relevant literature.

The main arguments presented in this paper are as follows: In our material from the Future House we found that all the parents expressed varying degrees of ambiguity *vis a vis* the uses of TV. They all told us that their families were spending several hours each day in front of the home's TV(s) but at the same time they (to different degrees) communicated that they spent too much time on this activity. Thus, watching TV seemed to be associated with morality: "we *shouldn't* watch so much TV". This normative stance was expressed both in relation to their own activity but was perhaps most acutely felt in relation to their children.

In this paper we wish to present a model for explaining this ambiguity. In short, we argue that the home is a setting with special qualities in western societies – it is the main context for realising fundamental cultural values like intimacy and sociality. Thus, the family setting stands out as closely associated with existential meaning. For this reason all objects and activities acquire a new meaning if they are embedded in the home – they must be 'converted' in ways that make them acceptable within the cultural meaning-universe that the home represents; they need to be domesticated. We contend that TV watching has – through the technological and sociological changes that have taken place during the last decades – come to represent a threat to the family as a cultural value and hence a social reality. The feeling of threat suggests that the TV is seen not only as a technology and a medium, but also as what has in actor-network theory been called a semiotic and material actor. The feeling of ambiguity is rooted in

the contradiction that the TV represents; on the one hand it is felt to threaten the sociality and intimacy of family life but on the other it fulfils a deeply felt need for a culturally acceptable rest; which could be called a kind of ‘social inactivity’. The expressions of ambiguity that are easily detectable in most families are individualised responses to this practical contradiction. At the end of the paper we link these social mechanisms more specifically to the introduction of digital TV that will be a reality in the near future.

We also wish to point out that the explanatory model that we present is highly schematic and simplified. While the uses of TV in the home results from highly complex many-faceted processes we wish here to highlight a limited number factors that we believe might give some important insights into the phenomenon we study. This means that we do not claim a universal validity for our model – only that it points to core social mechanisms related to the issue we study (Elster 1989).

Methodology

The project (*Families’ uses and experiences of digital TV’s entertainment content*) that is the prime basis for the arguments presented here was carried through in Telenor’s Future House in May 2002. Telenor – the major Norwegian telecom company – has built a house at their premises at Fornebu (just outside Oslo) that it has filled with the latest of digital ICT; digital TVs, computers that regulate temperature, humidity, access to the house, etc. The house is built as if a family could live there but is used primarily as a research site. We selected four two-income families with at least two teen-aged children living at home. The project is primarily intended to be a preliminary step to a larger project we hope to start up in 2003, therefore we did not consider the issue of representativity. The only criterion we had apart from the household composition was that they had an interest in digital technology.

Each family spent a whole afternoon and evening in the Future House, trying out two pilots that have been designed for the future Norwegian digital TV. One is from NRK – the national public service broadcaster – and one from Norsk Tipping – a major Norwegian betting company. Both pilots were designed for the purpose of extreme interactivity. By this we mean that the participants need to be active, by constantly choosing between different alternatives in order to watch the pilot to go on.. The participants related to the pilots as a family in the sense that they all had to watch them together, the idea here was to be able to observe some of the dynamics of the family setting.

The NRK-pilot that was tested was a variant of a pilot that had been open for the public to try out on their PCs. It consisted, basically, of news and sports. By using the PC’s mouse one could choose what to watch and when; the latest news as well as some entertainment-programmes of older date. This pilot was obviously made for use on PC – even though it is conceived as a pilot for future digital TV – and its design bore evidence of this media platform.

In contrast, the Norsk Tipping-pilot was made for TV use. The basic idea is that if you have registered on to this particular betting service of NT you will see a menu at the bottom of your TV-screen while watching the sport event. By using the remote control you can choose to bet on the outcome of the game, the result at half-time, the outcome of a penalty kick, etc. *while* you are watching the game on TV. Thus, you can combine a

desire to bet on sport events with the enjoyment of watching them. Information on the screen will keep you informed on the details of the betting (results, betting odds, your wins and losses, etc.).

In addition to testing the pilots, time was spent on focus group interviews. We asked about the families' actual uses of ICT at home, their attitudes, etc. as well as about their experiences of testing out the pilots in the Future House.

The development of television in Norway, from monopoly to cable and parabol

For many years we had only one TV channel available in Norway and broadcasting was restricted to only a few hours every evening. Moreover, hardly any home had more than one TV, and many did not have TV at all. These factors meant that less time was spent in front of the TV, and that the time spent was mostly together with other family members. Thus, TV-watching occupied a smaller part of each family-member's time and it was mostly a relatively social way of spending time.

But during the last 20 years the situation has changed dramatically in three steps. First, cable-TV was introduced, mainly in the large cities. Secondly, TV2 was established as a competitor to NRK in 1992; and lastly, the parabol diffusion expanded during the 90's.

As TV and broadcasting developed, more channels became available and each channel offered more content. Partly as a consequence of these changes, and partly due to increased wealth, the number of TVs in each household has increased radically (today the average Norwegian household has 1,8 TVs). The result is that each family member spends more time in front of the TV set, and less often together with other family members.

The fourth fundamental change is digital TV, becoming a reality for an even larger part of the population as satellite broadcasting increases, and with full digital ground system soon to be realised. The distraction of the family seems to accelerate. Not only will the number of available channels probably increase further, but also the digitalisation of the medium implies an increase in interactivity. And what seems to be a tendency as interactivity increases is that the families watch less TV together. Increased interactivity involves that watching becomes a matter of continuous choice – where the dynamics of the entertainment will just as much be determined by the one holding the remote control, as by the TV-producers.

The first years after TV was introduced the mere quantity of the media content offered on TV was radically less, and less entertaining. There was only one channel available and broadcasting was restricted to only a few hours every evening. Moreover, hardly any home had more than one TV, and many did not have TV at all. These factors meant that less time was spent in front of the TV, and that the time spent was mostly together with other family members. Thus, TV-watching occupied a smaller part of each family-member's time and it was mostly a relatively social way of spending time.

As TV and broadcasting developed more channels became available and each channel offered more content. Partly as a consequence of these changes, and partly due to increased wealth, the number of TVs in each household has increased radically. The result is that each family-member spend more time in front of the TV and less often together with other family-members. And as digital TV is a reality for an ever larger part of the population as satellite broadcasting increases and with full digital ground

system soon to be realised, the un-focusing of the family seems only to carry on. Not only will the number of available channels probably increase further but the digitalisation of the medium implies increased interactivity. And what seems to be a tendency as interactivity increases is that the family watch less TV together. Increased interactivity means that watching becomes more a matter of continuous choice - where the dynamics of the entertainment will just as much be determined by the one holding the remote control, as by the TV-producers. This implies that TV-use becomes more like PC-use, and our material suggests (and is supported by other studies - cf. e.g. Christensen & Tufte 2001) that the sociality that we find in front of the PC is a peer-sociality; the children use the PC together with their siblings and/or with friends while the parents stay away.

As parents are more acculturated and 'responsible' it follows that normally it is the parents who will first feel ICTs as a threat to the home. They are the ones who will complain about too much TV-watching and electronic game-playing, etc. while the children feel that their parents are unnecessarily strict about an activity that they feel is OK (Christensen og Tufte 2001).

Households and families

It is a well-established truth, that when studying uses of technology, including ICTs, the objects must be studied in the actual social contexts they appear. In our case, the home is the relevant social context. The objects fulfill certain functions, but these functions cannot be studied separate from the settings in which they are applied. This, again, requires an understanding of the meanings given to the objects by their users, and therefore also of society at large, since the ways objects are used depend on how they are understood. Lastly, such meanings will always depend on more general existential and moral cultural systems that the users belong to.

In contrast to e.g. PCs and cellphones, TVs are closely associated with the home. TVs are usually accorded a central place in the home and a major share of TV-watching is done at home. This means that to understand the uses of TV it is necessary to see it in relation to the home as a cultural and social setting. Therefore a few words about the home setting are needed first.

The home is a special place in Norway, as it is in most western societies. Not only is it a core consumption unit, and hence an important economic reality, but it is also, and not insignificantly, a central socio-cultural entity. In what follows we shall call the economic aspect of the home '*the household*' while the socio-cultural aspect is termed '*the family*'. For the purpose of this paper we will draw attention to the following points:

Although modern socio-economic structures have deprived the household of many of its functions – first of all its role as basic production unit (Grønhaug 1976; Sahlins 1974) – it is still important, since it is still the main unit for organising consumption. The typical modern household pools its incomes and allocates its resources according to cultural rules and individual normative criteria. This means that even in one-income households the questions concerning larger purchases must be dealt with within the context of the household. Hence, since any normal household is experienced as having limited resources, the question of purchasing an expensive digital TV must be considered in relation to other needs (e.g. a new car). However, since the values

associated with the home require cooperation and preferably agreement, it follows that purchasing decisions must be the result of a relational/social evaluation process that involves at least the adult members of the household. This means that the question concerning an object's value is not limited to monetary but also to moral concerns. The socio-cultural aspect of ICTs is therefore entwined with the monetary aspect, and is actualised even before the object has entered the home. It is for these reasons we link the term 'moral economy' to the home.

This obviously points at the home as family, i.e. at the cultural construction of the home. In Western societies the home stands out symbolically as the significant counterpart of public life – dichotomous terms like 'gesellschaft' vs. 'gemeinschaft' (Nisbet 1970) highlight this important cultural position of the home. As contrast to the bureaucratic and commercial, competitive reality of public sociality the dominant image of the home is romantic love and interpersonal intimacy (Beck og Beck-Gernsheim 1995; Borchgrevink og Holter 1995; Giddens 1992; Shorter 1975; Luhmann 1986) – not surprisingly since the 'natural', expected outcome of romantic love (of which sexual practice is an ingrained part) is still the founding of a family. Hence love, as a dominant ideology of today's West, is embedded in the home and therefore portrays 'family life' as the goal of all activities (Sørhaug 1996). Thus, as a key context for existential issues a lot is at stake here – which makes the home a very moral place, and consequently, there are very strong ideas about what one's home *should* be like. The hegemonic idea of the home is that it is, or should be, an intimate and social place. It should be dominated by diffuse, close relationships based on a particularistic ideology, and thus representing a striking contrast to the public sphere dominated by bureaucratic morality (Parsons 1951; Weber 1978)

An important point here is that the cultural and moral qualities of the home together constitute what Bourdieu calls a *social field* (Bourdieu 1990), which means that taking part in this kind of sociality implies a framework that affects thinking and judgements. It constitutes a language-game of its own (Wittgenstein 1968) – with its own moral and existential criteria that makes people act and react in a specific way (1992).

The arguments about the moral economy of the home

This quality of the home explains the marked scepticism the families in the project expressed towards the Norsk Tipping-pilot. The wife in one of the families refused to pay attention to the pilot and demonstrated her moral indignation by leafing aggressively through magazines. When pressed she stated that this kind of entertainment had no place in the home.

Thus, since the home is a social context with a particular cultural content, and therefore a place surrounded by moral borders the TV's role in the home is of significance. In its double capacity of being both object and medium it not only must be domesticated as it enters the threshold of the home (Silverstone, Hirsch, og Morley 1992) but also presents a continuous and persistent threat to the moral borders that help define what the home is. Television acts as a constant producer of unpredictable images and narratives *within* the confines of the home – some of which might very well go against the moral fabric of which the family is built.

To the sceptic, therefore, TV is almost like a Trojan horse – it threatens from within the confines of the home; it attacks from within – from the living room. But not only does it

threaten the family as a medium capable of mediating cultural contents that do not fit with the home's socio-cultural values; perhaps even more important for our argument is the fact that it seriously affects the communicative dynamics of the home. Drawing time and attention away from the focused interaction which is supposed to be an integral part of the family as moral unit, it potentially strikes at the heart of what people associate with the family – namely the close, emotional communication between family members. In short, parents often feel that so much time and attention is spent on watching TV that it affects the intimate sociality of the home. The adult members in our project all expressed this fear in various forms. In one family the wife stated that: “We use the TV too much. It is a bad habit. We should have done other things – playing cards for instance.” The husband supports her by saying: “It is just the way we are. We don't fight about it – we are just too blunt”. This attitude among parents is of course not new, it has been an issue of conflict in most families for decades. But perhaps it is more acute now than before.

Now, if this was all there is to the intergenerational conflict the problem would really not be that big, and the whole situation could, in principle, be explained by different cultural and familial positions, and the power-relationships that existed within each family. Such an analysis would, of course, be highly interesting but we contend that the issue is more complex than that. We suggest that the new role of TVs in the family (ever-increasing volume of media content combined with decreasing social consumption) has been accompanied by new, both public and private requirements for the home (cf. *ibid*: 16-17) which are linked to the home both as family and as household. These requirements and their consequences could be summed up in the notion of ‘time-squeeze’.

This brings us back to the issue of the home as household. Although households are not production units in the sense of pre-industrial times they form an important context for decisions directly related to production. Not only does the home context influence the type of jobs its members choose, but it is equally important in relation to how much the members work. And here the household as a unit faces a challenge/dilemma that is directly linked to a sociological quality. Households go through a cyclical development where the first phase is normally characterised by an advantageous producer/consumer relationship: before the couple has children the household's expenses are relatively low (few/no dependants, low housing needs, etc.). When the couple has children, however, it experiences a less advantageous situation: the household's needs grow faster than the income. This places stronger pressures on each producer; each one has to earn more in order for the household to stay viable (Chayanov 1966; Stenning 1962).

What has made this situation often acutely difficult for many is that in today's western societies this economic situation often goes together with a radical increase in non-income chores. Hegemonic ideas about parent-child relationships require additional duties; they shall follow up their children in various ways that are often quite time-consuming (Beck & Beck-Gernsheim 1995). In order for the household to stay viable and live up to the norms set by society the parents must increase their total workload radically. This, in short, is the explanation for what is popularly called the time-squeeze. More familial obligations go together with an increased need for income, which in practice often means more overtime. The mechanism is documented in statistical data on households' time-use (SSB 2002).

The net result is that parents in two-income families experience pressures that often leave them in a state of fatigue. Exhausted by the daily chores, by the end of the day, the need for rest is acute. And here the TV comes in handy. The time pressure and work loads mean that parents feel an acute need for rest before the children are in bed. Such rest must be of an 'acceptable' nature – i.e. it must be in a form that does not counter conventional ideas about proper parent conduct. Absolute inactivity (i.e. sitting in a chair or lying on a bed without no apparent action) seems outside norms about parent conduct. But TV represents a legitimate and convenient way of getting rest. This is clearly reflected in our material and also confirmed by other studies (Ling og Thrane 2001). Most of the parents in our research said that they sat in front of the TV without necessarily paying much attention to what went on on the screen. They might just be unfocused or read the paper, small-talk, etc. Thus, our contention is that TV provides one of the very few ways for culturally acceptable resting while the family is together at home. It simultaneously serves to keep children at bay and gives an excuse for doing nothing while seemingly being social. Thus, it is an acceptable way of social inactivity. (If a family member had taken the same passive posture in the living room without having a TV in front of him/her the other family members would probably have thought that something was wrong.)

It is this constellation of functions that creates the ambiguity that can be observed among parents: they struggle with reconciling on the one hand a strong feeling that the family – and especially the children – looks too much on TV, and on the other hand that it provides a necessary time-out in the busy everyday family life. Such dilemmas do not, of course, have one, clear solution and therefore there will be a constant inner struggle between needs and norms – and the tangible results are (apart from conflicts between family members) never fully predictable.

As for digital TV, it seems that the argument about increased interactivity might be the wrong strategy for promoting this product. What this line of thought reflects is more an engineer's affection for technology than the potential needs of the buyers. Or perhaps more correctly; it probably does not meet a need among two-income families with children. Moreover, we have in this line of argument focused on digital TVs as if they could only be handled interactively. This is of course not the case and there are definitely functionalities in this type of TV that might in fact be of great interest for families with children. For instance, parents who struggle to get their children to bed will not the least appreciate the possibility to watch the news in a passive mode half an hour later than the announced time.

Concluding remarks

We have focused on digital TV and the moral economy of the home, showing the dualistic attitudes among families with children. Of course, there are many other types of homes, for which these the arguments presented here do not necessarily apply.

Our main conclusion is that Digital TV will have problems with the interactive model developed by the Norsk Tipping, because the moral economy in the families relates both to money and time. The modern family is a negotiating family, and digital TV will be on the agenda of the family "council" for both of these reasons.

Digital TV created a tension between individualism and collectivism within families. In the short run the actors have to meet this dualism and ambiguities within families. In the

long run the individualistic approach will either win within the families, or has to be developed outside households.

We hope to develop these ideas both empirically and theoretically in a larger main project, where we also will be able to invite more representative families to the future house.

Tove Rasmussen, *Television and Internet use in the home: patterns of use*

Introduction

“When discussing and planning the future of broadcasting, it is essential that policy makers appreciate the current status of media consumption to enable them to make more informed decisions in the field of convergent digital media. In theory and already to some extent in practice, these new media are a hybrid between the TV and computer. Instead of regarding the present use of these two media as unquestionable or even uninteresting in the face of convergent media, it is important to understand how these commonplace media are currently being used by families” (Raudaskoski & Rasmussen 2003).

In autumn 2000, we started a research project titled *Interactive TV and Cross Media Consumption: Technologies, Market, Content and Use*, at Aalborg University, Department of Communications and VR Medialab.¹⁷ There are two axes to the project, one studying the home use of TV and the Internet from a microsociological and ethnographic perspective, the other dealing with a more overarching cultural and macrosociological perspective of digital and interactive TV as a medium for entertainment and information.

In the present paper we¹⁸ focus on the use of media in the home seen from the point of view of media ethnography. The primary interest is in the investigation of programmes, content and services in the present development of TV from the perspectives of user and text. In terms of text, the main focus is on observation and analysis of interaction and interactivity in connection with programme types characterized by substantial viewer involvement – e.g. genres such as *reality games* and *docusoaps*. (The video-part of the project is reported by Pirkko Raudaskoski 2001). In terms of the user, we focus on the patterns of everyday media use and genre preferences in relation to age and gender.

An empirical study was undertaken at a large joint antenna association in Aalborg East. It included questionnaires, qualitative interviews and video monitoring in private homes. One thousand questionnaires were sent out to selected households in the *Nørre Tranders Antenneforening*. Six families were selected for qualitative interviews on the basis of the responses and two families for video monitoring. We were interested in the relation between use of the TV and use of the Internet and patterns of so-called *cross media consumption*¹⁹. In this paper we present some of the results from the interview

¹⁷ See the project's homepage: www.vrmedialab.dk/projects/mmih

¹⁸ 1) In writing this paper, I have drawn on some of the insights made by Pirkko Raudaskoski (2001) in her studies of “Interactivity as it happens” and I thank her and the research team for all their co-operation.

¹⁹ The concept of *cross-media consumption* refers to the use of individual media transversely. It is applied, for example, in empirical investigations of media use in homes with Internet access

study and discuss the Danish viewers/users in relation to more “mature” digital audiences in the UK.

A few keywords on the research background

In the field of TV studies, work on the use of media in the home took off with the establishment of the *Birmingham School* and the cultural studies’ tradition in the UK. During the 1980s, the focus was on the significance and impact of the media, and especially TV, in day-to-day routines, including an ethnographic contribution to an understanding of the media as a “natural” source of communication and as a cultural factor in modern life (Hall *et al.* 1980, Morley 1986). At the beginning of the 1980s, German and American studies (Bausinger 1984, Lull 1980) also pointed to the necessity of studying the function of the TV in a domestic context.

Our qualitative interview research was undertaken so as to acquire deeper insights into specific forms of media consumption viewed in the light of the families’ moral economy (Silverstone & Hirsch 1992) revealed in the interviews. The concept of moral economy comprises both the economical framework of families’ consumption and the social and cultural values involved and expressed in the consumption practice. This perspective of *consuming technologies*, the title of Roger Silverstone and Eric Hirsch’s influential book, reflects the expansion of the media technologies from the early 1990s. We designed our project in line with these studies and decided to conduct group interviews with families as the primary method in the qualitative interviews because the social dynamics in intra-group communication play a significant role in understanding the importance of the media in day-to-day interaction. Six families were selected on the basis of responses to the project’s questionnaires. The questionnaires were coded so as to enable us to use the responses for recruitment of participants for qualitative interviews and video observation.

In a wider sense, the objective of the study was to determine how certain consumption patterns relate to specific discourses and power structures, including how the family and its individual members ascribed significance and meaning to the TV and Internet seen in the light of age and gender. The household and the family may be specified as follows: in the questionnaire it is important to treat the household as the physical, economical framework surrounding one or more people. In qualitative terms, the family means a social, emotional community. Use of the word “home” reflects an interaction between the framework and the community and the moral economy is at stake “at home”. We were especially interested in social and individual uses of television (and computers) in the families as digital interactive television seems to challenge traditional television viewing behavior.

compared to those without (cf. e.g. *Nielsen/Media Research* and *Nielsen/NetRatings*). We are particularly interested in the connections between the use of TV and the use of the Internet in terms of the mutual cross-references between the media and the concomitant use of media such as Internet chat rooms associated with certain TV programmes as well as the use of e-mail as an interactive return channel in connection with broadcasting, etc.

Presentation of participating families

Household No.	1	2	3	4	5	6
No. Persons	3	3	4	4	4	4
Channels available	6	36	36	36	36	36
Channels used	9	15	9	9	8	13
No. TV sets	2	2	3	4	3	3
No. Computers	1	3	1	1	3	2
Internet connection	Cable	Cable	Cable	Phone	Cable	Cable
Set Top box (Selector)	Yes	Yes	No	No	Yes	No

As is apparent from the table, families had several TV sets; all had video. In general, the families used their TVs and computers extensively in their daily lives. They preferred Danish TV channels and Danish Internet portals. At most 15 of the 36 TV channels available from the antenna association were used, which was in line with the study's quantitative measurements and other data. The families generally preferred TV2 and TV3 whilst *Discovery* was clearly the most popular foreign channel. Children and younger family members particularly liked TV entertainment and films, as well as playing games, chatting and downloading from the Internet. The adults viewed TV current affairs programmes and entertainment and used the Internet for communication (e-mail) and information.

Three families used the digital set-top box *Selector* (TDC – Danish Telecom) to a limited extent; it was regarded as slow to start up and without any specially individual content except for the weather forecast. The film channels and games were used but there were not sufficiently many new options. The families also used video in the same way as those who did not have a *Selector*. They did not use the electronic programme guide since they thought it was easier to use Teletext. (The survey did not take into account changes in channel offerings for digital services after 15.10.2000).

Summary of the interview research

The different moral economies of the families combined with their media consumption may be summarised as follows: Men had specific objectives when they went on the Internet. They routinely sought information within well defined areas of interest, be they work or pleasure: motor racing, stamps, football. Women also used the Internet to search for information, but mostly for specifically limited tasks: travel, grant applications.

The adults used e-mail to communicate while the children exploited the opportunities and possibilities of the Internet to a far greater extent in the entertainment sector: games and music. They used the Internet – entertainment and chat rooms - as a medium of communication. Seen in the light of the media's various forms of gratification, as described in *Uses and Gratifications* (Svennevig 2000), for the children the Internet was a *medium* which could gratify practically all their needs, whereas the adults primarily used the Internet as a *tool* for person to person communication and information.

Internet (medium)	Internet (tool)
Entertainment Communication (chat and e-mail)	Communication (e-mail)
Information	Information
Children	Adults

Dominant children

Families have moral economies which set certain, albeit broad, frameworks for the use of information media in the home. The fact that children have extensive freedom to use the media in their own rooms means that controls are only imposed when parents receive excessive telephone bills and that indirect control may be exercised on Internet communications by checking the status bar, although this is rarely done. Sonja Livingstone has made similar observations in a British context. She concludes: "However, in many cases parents, while often meaning well, followed a policy of benign neglect. They showed little monitoring or engagement with their child over their Internet use claiming a comparative lack of expertise: in practice they paid little attention to what their children did or what sites they accessed" (Livingstone 2001:12)

The child dominance in our families consisted mainly of their having mastered the many different possibilities of the Internet; downloads and chat-rooms were routine whereas it was stranger for the adults. In family discussions, the children's mastery was reflected in their linguistic discourse which the adults found difficult to match. When family members discussed the possibilities of interactive TV, the children were much more enthusiastic and they had taken on board the possibilities whereas the adults were relegated to playing the role of those with financial responsibility. Kirsten Dortner describes this as follows:

"From a media point of view, the computer medium is a good example of older people becoming isolated from the dominant trends in society (Dahlgren 1990:80) because it is generally the young who use the computer in the most different ways, they who mainly assume the broadest spectrum of digital work processes and who try out new features of software. But from a social point of view, the computer medium is equally a clear

example of the fact that the elderly, or anyway the adults, still have the power to affect the distribution of such dominant trends. It is the parents who usually buy hardware and software for the children and young people in the family." (Dortner 1999:210)

But it is the young and the children who have discursive power over the PC and the Internet in familial communication and accordingly, we may conclude that children occupy an extremely important position in the family's new moral economy. Practical and linguistic day-to-day discourse receives extra emphasis because it is supported by the dominant discourses at the macro level in society in which being able to manage information technology is viewed as a prerequisite for knowledge and for financial and personal development. In the socially-oriented families, the correlation between micro and macro discourse was especially marked and it was also these families in which the women appeared to be competent on their PCs and who were reticent, however, in expressing their ideas about the PC. They gave no indication of mastery; rather they sought to ensure that the interviewer received a good impression of the family's moral economy by stressing the children's interests and letting them speak.

The debate on the significance of the computer and the Internet for children's learning, knowledge and their future is so all-pervasive that it also has an international dimension, with both Livingstone (2001) and Higgins (2000) reporting almost identical considerations for British parents. We could not, however, confirm on the basis of the interviews whether Livingstone's observations that children do not in fact master all activities offered by the Internet also apply in our context (Livingstone 2001:19).

Considering the interactive options in the set-top box, children prefer some kind of programme guide (with pictures) for all the programmes. This is a most realistic wish for the options presented by digital TV, as described by Hugh Mackay (2002) in his ethnographical study of Welsh families' use of digital TV and the EPG (Electronic Programme Guide). The EPG provides an optimal portal to the channels and provides entirely novel opportunities for channel flicking: "The menus can be displayed permanently on the screen. The programme being watched is reduced in size to allow the viewer to keep one eye on the other choices – rather like the multiple windows on a PC. In one of our households in particular, the EPG used this way is a semi-permanent feature of watching television and has affected profoundly how television is used, by encouraging flicking as a mode of viewing" (Mackay 2002:11).

Television use and genre

With the use of the TV, the *individualistic families* generally functioned in the same way as Morley's (1986) patriarchal families. The individualistic and patriarchal traits are summed up in our own term: *masculine families*. The men kept control of the remote, they did not like talk during programmes and they preferred factual programmes and realistic fiction. The women fitted in with the TV's flow and structured their tasks according to an internal timetable (K. B. Jensen *et al.* 1993) for their favourite fiction and drama programmes. A regular daily routine by way of inner programme listings for news and series apparently did not harmonise with interest in using the Internet, either as a tool or as a medium for these women.

The masculine families' moral economies were male dominated, both normatively and with respect to rules for TV use and the acquisition of IT equipment for the home. The men actively and to a large degree individually adopted the information media in the

four modes: appropriation, objectification, incorporation and conversion as constitutive for the families moral economy as described by Silverstone & Hirsch 1992). The mens' interest in technology combined with purposiveness, preference for the factual genre and individual (leisure) interests indicated great interest in the acquisition of interactive hardware and in such factual genres as sport.

The feminine (socially oriented and non-patriarchal) families were much more social in their television use, thus fitting the relational consumption patterns described by James Lull (1980). They liked such community genres as quizzes and reality TV in which the family could actively get together in using the TV in a way which was also extensive and hedonistic²⁰. The families took a cross-media approach and they were able to switch between the mass media and personal media in a social manner. This occurred, for example, when Family 3 discussed why a participant in the *Robinson Expedition* (Survivor) gave his talisman to another player. The family then together got onto the Internet to chat about this with the player who had been voted out.

The feminine families' moral media economy was oriented towards the children. They were not so up to date with the latest wonders of information technology as the masculine families. Rather they were prepared to wait, for example when considering a digital set-top box. They were interested in being active and in participating together in such popular genres as quizzes and reality shows.

TV use Feminine families	TV use Masculine families
Social Hybrid genre (quiz & reality) Hedonistic	Individual Specific genre (fact or fiction) Pragmatic (specific genres or internal programme-listing)

In the figure, we concentrate on the contrast between the social and individual aspects of the families' TV use in order to emphasise the fact that social reasons are still important for television use and the development of interactive TV formats. This in no way changes the overall picture of familial media use which was characterised by individualization which was in line with the project's quantitative measurements and other data. For our families, TV was thus no longer the dominant shared medium. It was

²⁰ 3) The Danish research project "Når danskere ser TV" (When Danes watch TV) identifies three types of TV viewer - hedonist, pragmatic or moralist. A hedonist takes a very positive attitude towards TV. It is seen as a source of pleasure and play and viewing is not planned or regulated. Unlike the hedonist, the moralist sees TV as a temptation, a waste of time so TV viewing has to be planned very carefully. In-between we find the pragmatic attitude: TV is regarded as positive, as a source of information and pleasure; viewing is planned in order not to interfere with other family activities (Jensen *et al* 1993:74/75).

only in specific genres that the whole family got together (see Rasmussen 2001 for a more comprehensive report of the study).

The tension between family unity, of wanting to be more together, and individualization with each individual pursuing his/her own interests and lifestyle has been analysed at the more general level of home technologies by Jeppe Læssøe (2002). Eivind Stø & Jo Helle-Valle reported on the same phenomenon in a experimental case study of Norwegian familial reactions to interactive betting on TV sports: "Digital television created a tension between individualism and collectivism within families. In the short run the actors have to meet this dualism and ambiguities within families. In the long run the individualistic approach will either win within the families, or has to be developed outside households (see Stø & Valle in this volume).

Discussion

Viewed in the perspective of the more mature British digital TV market studied by Vivi Theodoropoulou who investigated the first generation of interactive TV use of Sky Digital, our study of Danish families' moral media economies demonstrated many points of congruence. She differentiates between *contextual* and *non-contextual* interactive TV, with viewers preferring contextual digital TV offerings "which enhance their viewing experience, rather than administrative or work related services (banking) or other non-contextual services" (Theodoropoulou 2003). In Denmark, the designation "digital added value" is often used to describe this enhancement of the TV experience and the British Sky-viewers especially preferred this kind of interactivity for entertainment and game shows.²¹ Theodoropoulou indicates however that interest in subscribing to Sky Digital is mainly a function of the desire to be able to receive more channels.

So the wish for interactive services is generally ranked low by users, which may be due to their not knowing enough about what interactive TV actually is or that they would prefer to use their TVs as they always have. Both Theodoropoulou, Martin Higgins (2000) and the Oftel Report (2001) emphasise that users differentiate sharply between TV and the PC as media: TV is good for entertainment and relaxation whilst using the Internet and PC is more work-like and demanding. In the Danish familial context, it is important to note that children do not differentiate sharply between the media in terms of relaxation/work and entertainment/serious information.

The "mature" UK digital audience seem to be satisfied with the new services. New conflicts and negotiations about TV usage do occur in families. Yet it seems that the UK audience does not engage in the same kinds of moral conflict that we find in the Norwegian families reported by Stø & Helle-Valle (2002). The UK digital audience seems to be much more hedonistic: Actively subscribing to new channels and options does require viewers to be dedicated to TV. The Oftel Report gives an interesting profile of this new digital audience: "Viewers are taking responsibility for their viewing, and sticking to favourite genres much more tightly than with terrestrial, scheduled television. This is particularly true of children's viewing. It seems to lead to a marked

²¹ 4) Non-contextual interactive services such as e-mail, banking and shopping are even perceived as asocial and selfish by the family because they interrupt the TV viewing experience for other family members (Oftel Report 2001:12).

increase in conservatism over viewing choice, significantly shorter attention spans, and regular browsing whilst watching a programme” (Ofcom Report 2001:13).

It is important in relation to the development of digital interactive television that we take into consideration the ways in which the home, the living room, leisure time, life projects, power structures and daily routines and norms in families are construed. Our interviews were conducted on the presumption that TV is a more extensive and collective medium than computers/Internet, which are more intensive and individual. The process and results have not completely altered our view on the relations between the computer and the TV but it has become clear that in our “pre-mature” interactive audience, the TV is used very extensively although it has lost some of its status as the dominant collective medium for our families. Social TV viewing in the family is not the same it was when David Morley, James Lull and Hermann Bausinger presented their media ethnographies in the 1980s. Whilst families may have many TV sets in the home that are largely used individually, computers and the Internet may in fact be used collectively and for a wide range of purposes.

Both the structural and the relational aspects of social television use are changing with the exercise of power by means of the remote control (choice of programme), regulations and censorship and the common ground of reference for family interaction and socialisation are different than in the 1980s. We should add that the new perspectives of identity formation, socialisation and tensions in the families also need to be reflected in a broader critical perspective of culture and society and the dominant discourses of “free choice”. The context in which these actually occur in the family living room with its possibilities for “interaction cum interpretation” is supplemented by the viewers’ access to virtual settings where it is possible to expand the experience of the television programme by chatting to participants via the Internet or debating with other distant viewers. Such possibilities are challenging, exciting and somewhat disturbing since they fragment the traditional public service idea of a common public sphere into new, specialized and more conservative publics where personal lifestyle choice of programme maybe is all there is.

It will be a matter for both the producers and the users to decide whether and how digital interactive TV will change the position and placement of TV in the family context. Hugh Mackay’s ethnographic study of Welsh familial media use demonstrated that digital TV may incorporate radio and video and serve again as the centre for the family’s daily media use: “...television has almost become like the heart again, the focus for the household coming together in the living room” (Mackay 2002:23). We cannot say whether this is a feature of the digital television environment itself or a more practical consequence of the fact that hitherto, households have only had one set-top box. We would accordingly emphasize the need for more ethnographic and empirical research to understand the complex nature of familial media use and to make sure that the viewer/user/consumer’s everyday practices and preferences are not forgotten in new developments in broadcasting and the digital media.

[research contexts]

Qualitative research on digital television is still taking its first steps due to the scarcity of users' actual experience with the medium. Most of the research is done using market research methods, surveys and focus groups. However, research traditions from media studies and digital media design provide a fruitful basis for user-oriented, qualitative development. This section presents a research approach for digital television based on a combination of human-computer interaction research and cultural studies, and makes a short overview of research on DTV consumption in the Nordic countries and the UK.

Pirkko Raudaskoski, *How can (digi)TV viewing be researched?*

Digi-TV is accompanied by plans and assurances about its usefulness, and not just in economic terms, but also for the everyday consumers of the new artefact. Computerised homes are a requirement for a successful digi-TV landing, because the possibilities of this new device are based partly on it being a mixture of old computer and TV technologies: Convergent media is the slogan — also within the more theory-oriented research community.

Researching convergent media has resulted in attempts to converge theories and methodologies. Human-computer interaction (HCI) and usability research might help us understand how the use of the TV/computer hybrid would be most successful. Of relevance is also the traditional attempt at comparing face-to-face communication with mass media communication, as has been the case for example in the studies that have tried to figure out what the communication situation between the viewer and the TV face is like. (Horton and Wohl's parasocial interaction (Horton & Wohl 1956) was a first research within this field, even though they mostly concentrated on the psychological phenomenon of how a TV-host was understood as a friend). To this communication research family could also be added those studies in which TV as artefact is classified according to its "affordances" (which Norman 1988 introduced to the HCI research): What kind of communication is possible with the TV (see Jensen 1999 for a comprehensive typology of artefacts).

Media studies has had an interest in viewers already earlier: Reception studies have tried to understand, for example, how a viewer's cognition works in the moment of reception. More wide spread has been to research general cultural and social issues, the goal being to understand how viewers interpret various programmes. These interpretations have been traditionally extracted from viewers through interview research (cf. Alasuutari 1999).

I have been advocating an approach that makes it possible to research all these topics empirically — and with one approach. TV viewing (or using) can be understood as a situation-bound activity in which interpretations become visible through interaction. It is important that the material-semiotic character of TV viewing/using is not forgotten in this research: Let us not research only what people are saying or doing at a TV programme, but also what they say and do at a TV set, and how in those activities the TV becomes part of the ongoing interaction and interpretation. In this approach TV is not classified monolithically as (non)interactive on the basis of its physical features only, but interactivity is situation-bound (*emergent interactivity*) because a certain feature of the TV (programme) becomes part of the unfolding interaction. With this approach I take further my previous research into the use of mediated (spoken or written) texts where I emphasises the interdependency between materiality and interaction, and also the need for empirical research (Raudaskoski 1999). The study consisted of four cases of user-readers encountering others in computerised environments, and thus belongs to the human-computer interaction (HCI)/computer-mediated communication (CMC) tradition in which the aim is to improve the interactional properties of computer systems. Instead of starting with the features of the system, my emphasis was on the encounters between users and other people (at a

computer or through a net based video conferencing system) and/or between users an "anonym" texts, such as an "intearctive" telephone answering system, a computer tutorial, a printed manual and a computer programme.

When I have later researched the "use" of TV or Internet Chat, my research method has been the same: A detailed analysis of a videoed situation of use. This is why I do not want to draw a strict line between interactivity research done in HCI/CMC and that of (digi)TV or other artefacts. Instead, my focus when researching the use of any artefact is always on the so-called *perceived affordances* that the users create in the situation of use, and not on the *real affordances* of the designers of the technology and programmes (see Norman 1988).

The technique of interaction and what is it used for

Empirical research should study the sense-making practices of the TV viewers — how do they show to each other their understanding of the situation. According to ethnomethodology and conversation analysis the participants in a social situation show each other continuously through words and deeds what their understanding of the situation is — and through doing that we create the situation as it is (see e.g. Heritage 1984).

Conversation analysis (CA) has since the 1960's tried to find out how this social ordering takes place in everyday talk. Unlike other theories which also understand talk as action (e.g. speech act theory), CA has set out to find out through empirical research what people's methods (*ethno methods*) exactly are when they show each other their understanding of the ongoing activity. So CA has been able to show, for example, the "basic technique" of turn-taking: what are the essential resources that interlocutors use when they take, hold or give up a turn-at-talk. When a TV viewer says something to the person on the TV screen and does that according to this basic technique we can say that the viewer 1) constructs an interactive situation and 2) shows how s/he understood what s/he saw/heard on TV. Thus empirical research can shed light both on the usability of the (digi)TV in everyday surroundings and on the cultural and social constructions (identity, attitudes etc.) that concern the viewer.

Differentiating between interaction with the TV and interaction with co-viewers resembles a bit how Scollon (1998), inspired by Goffman, divides following a public event (*watch*) and commenting on it to a copresent person (*with*). On the other hand, Ellis (2000) regards TV watching as being a kind of witness. But if a TV viewer is active, most probably *watch* and *with* are not strictly separate modes: a comment is given in a certain point in the programme's flow. This is also because in TV viewing, the event is the centre of attention in a different matter than when people come to see things in public spaces. So, for instance when an old lady is watching TV with her husband and says, smiling, with low voice and her gaze on TV, "Hmm old Ole yes" after a TV host has introduced an interviewee as 'old Ole', she is producing something she saw or heard on TV as intelligible (*watch*), and her comment as overhearable by the other viewer (*with*). But in this case the comment is also produced interactionally with the programme – it is also parasocial. This aspect of interacting with the event is not so much present with the *watch (witness)/with* classification. The material-semiotic setting makes it possible for the TV viewers (or radio listeners for that matter) to 'interact with' the programme. And as this rarely happens when people have headphones on, the *with* aspect, the interaction with other viewers, is clear. With the possibilities that

digitalisation offers for interactivity, maybe some interesting applications of TV programmes as public texts to be consumed in private social settings could be developed with these affordances in mind.

The visibility of TV/competent seeing

Even if we talk about TV viewers, TV programmes (and their situated reception) are fairly seldom analysed as objects of seeing. I have analysed some (analogue) TV viewing situations in some Danish homes, trying to make the visibility of the TV programme an important part of interaction analysis. With my research method any aspect of the interaction can become interesting; within conversation analysis this open approach to research materials is called *unmotivated looking*. However, with an emphasis on action as realised through language, even videoed situations of interaction often tend to miss the impact of visibility in the analysis. This is why I have somewhere else (Raudaskoski, in press) taken up the issue of materiality and visibility in CA analyses of technology use.

'Digi' is in parenthesis in my title for two reasons 1) I have not (yet) studied digi TV viewing, although it is of course possible; 2) if we want to build successful convergent media, it is utterly important to understand what our practices are like in the present TV and computer settings. This is why I have analysed traditional TV viewing situations and also Internet browsing to do with the same programme (use of webpages and chat channels). When analysing the technique of interaction and the cultural interpretations that are detectable in the interaction it is important to remember that the latter is not just 'content analysis' (i.e. what are the interlocutors talking about) but that 'topics' are intimately interwoven in the technique of interaction. Elsewhere (Raudaskoski under preparation) I show how two presently separated analytic interests can be fruitfully combined with this approach, namely detailed analyses of TV programmes and detailed analyses of the reception of the programmes. The 'grain size' of the detailed analysis is the moment-by-moment interaction and interpretation. In this work I have been especially inspired by the posthumously published lectures of the 'founder' of CA, Harvey Sacks (1998).

I participated in Autumn 2000 in the 'Multimedia at Homes' project in the Department of Communication at Aalborg University²². The aim of the project was to map out how TV and computer media are used in Danish homes (see e.g. Rasmussen & Raudaskoski 2002). The project consisted of three parallel subprojects: a questionnaire, an interview, and a video observation study — I was responsible of the last one. My research material comes from two homes in northern Jutland in which the last episode of the Danish version of the survival programme *Robinson* were followed. The programme was exciting as the winner of the competition was elected in it. The viewers in these two homes were totally different: in one, an old pensionist couple was watching the programme in their living room, whereas in the other an 18-year old young man had invited his friends to his room to see the programme. In both cases two research assistants who made the recordings were also present and watched the programme together with the others, and also were at the computer afterwards. They were *with* rather than just *watching* the participants, i.e. they sat down watching the programme

²² I would like to take the opportunity to thank professor Jens F. Jensen for heading a research team with room for serious and humorous discussions and debates, and associate professor Tove Arendt Rasmussen for cooperation that has also lead to co-authored publications (e.g. Raudaskoski & Rasmussen 2003).

instead of standing behind the video cameras, and although they had been instructed not to be active initiators of interaction, they would become involved if they were talked to by the participants. Also, when the computer was used, especially at the old couple's home, the research assistants would help in case of trouble. This meant that the situations were researched as 'people watching TV/using the Internet with videoing visitors', and thus the worries about 'natural behaviour' or 'observer influence' were not so central.

The aim of reality shows like Robinson is to hook the viewers to follow the programme such that they have an active interest in who is going to be the winner. It was clear that also in the last episode viewer excitement and laughter were sought for whenever possible. For example, there were two-person election committees around the country that had one vote each in the final vote. They consisted of old Robinson competitors but the viewers would only know who they were once the host introduced them when they were contacted. They were sitting in local studios and were connected to the main one via a video link. Thus a lot of trouble was taken to keep the pairs in their locality, instead of them having travelled to the main studio. The committees were carefully selected to have a balance between the two sexes — two of the pairs had a woman and a man each. The third pair consisted of a non-white young Dane and an old Danish man. When the old Danish man was introduced, the host used much more colourful formulations than with the second participants of the other two pairs. It was clear from the audience reactions that one specific formulation, namely 'old Ole', was a success as in both audiences one member repeated the formulation with a low voice quality and with a smile. In spite of the similar reaction in the same place of the flow, I have shown in my analysis that we cannot call what the two audiences did the same action, and also that what they say and how they say it was orienting to the ambiguity of the direct gaze of the people on the screen. So, we can make claims about what works from the programme flow in eliciting an audience 'interaction', and that a similar utterance in the audience can be adhering to different aspects of the seen and heard programme. But what is interesting is also what the funny formulation ('old Ole') does in the first place: it makes a subtle contrast between the non-white Dane and the white Dane, emphasising the Danishness of the second participant. Whether this was picked by the audience is difficult to say, but at least they did acknowledge the special formulation.

Visibility was also an important feature when I analysed how the Internet was used as a resource after the programme. When the old couple was using the computer, it was the husband who was at the keyboard, and the wife together with the two research assistants were standing around him. Visibility is of course very central to computer use, as the media still relies heavily on visual, not aural presentation. So in the multiple member chat rooms, for example, the turns are on the screen visually, and one of the first things that a chatter learns is that the order of turns does not necessarily match that of face-to-face spoken interaction. Thus a next turn might have no relevance to the preceding one, but to some other past turn. In this situation, as well, the screen was quoted with chuckling, and also with low voice quality. In doing this the quoter showed his understanding of the turn quoted as being part of the past discussion, and not being relevant for the old man's ongoing participation in the chatting. The old woman also showed her understanding of how to read the screen when she (mistakenly) took a turn after her husband's to be the relevant (funny) next — her laughter was not joined by the others.

So in both TV viewing and chatting the viewer-users in their action and interaction showed each other their understanding of what is going on on the screen as an observable event and in so doing also came to display their expertise in using the media. Quoting is one, efficient way of displaying understanding to others, and transforming the quote through laughter, for example, is a quick way of showing a stance to the seen/heard. The affordances for sequential interpretation at these two types of visual/aural media are different. When something from the TV flow is quoted, the quoting has to be fitted such that it does not disturb following the subsequent flow. This is one reason why low voice quality is needed. But when observing a chat room discussion, low voice quoting is not necessary as speaking does not have to be fitted to a flow from the screen, so the static display character of the screen is more prevalent than in a TV flow. When low voice quality is used, it is to mark the quoted as an 'aside', as a not relevant next, and at the same time showing the understanding of the past interaction as visible, as readable, as observable. Thus the audience shows in their actions and interactions an understanding of a similar difference as Kress (1998) who looked at science textbooks and how the images and their captions have changed from the beginning of the 20th century to its end. Kress makes the observation that "speech is oriented to action and event" (1998, 68), i.e. a sequence, whereas images are displays, "showing the salient elements in the world and the spatial relations between them" (1998, 69). Only in the chat room situation, those relations were not just spatial, but also temporal (the quoted turn was up on the screen spatially, and that meant a past turn interactionally).

What is clear in both TV and computer use is that if there are several viewers, the programme becomes a resource for social interaction. Maybe when the new developments of digi-TV are discussed, this potential could be taken for a serious consideration. With the analogue TV, the material setting provides for interaction with other viewers (the TV is surrounded by more chairs than one) but is limited by the flow from the TV; the present day computers provide a visual resource that is easier to talk about with others and that also allows for taking up past issues from the 'flow', but they are designed for single users. Digi-TV might be able to combine the two resources in a creative way such that interactions at homes have more space.

Conclusions

Since Suchman's groundbreaking work (1987) the ethnomethodological and conversation analytical understanding of people's practices being a site in which the intelligibility of the situation is continuously produced has been an inspiration to various types studies that have an interest in what kind of resource a computer is for interaction with or through it (in addition to the citations so far, for example, Button & Sharrock (1995), Frohlich et al. (1994), Luff et al. (2000) Kurvinen & Koskinen (2000), McIlvenny (2002)). As is clear from above, I also appreciate this basic idea about practices, and find that my special interest in the materiality and visibility of the artefacts can benefit from the approach and that materiality and visibility are worth researching further when the interaction potential of digi-TV is in focus. Thus to study convergent media does not necessarily require converging theories and methods, but it might be a good idea to study the use of the technologies to be converged.

The empirical analysis that this approach requires can also contribute to the 'cultural sociology' that Schegloff has been advocating. By cultural sociology he means

”something that includes not only high and popular culture, and not only that ”anthropological” sense of cultures that features in values, beliefs, taste, fashion, and so on, but one that focuses on the ”repertoire” of actions and practices out of which the quotidian life of the members of a social species are fashioned.” (Schegloff 1996, 164)

Thus when we observe people at TV, digi-TV or other technology in their homes, not only can we find out what kind of resource the artefact is in everyday use, but also how popular culture and values are realised (and maybe also sedimented) in the actions and practices of the user-viewers.

Mika Saastamoinen, *Digital tv and consumers – a literature review*

The transition from analogue television to digital television cannot be done without taking the participation of consumers. Digital broadcasts can only be received through a digital apparatus which consumers have to acquire. In this light it is surprising that there has been very little analysis of consumers' needs and desires in relation to digital TV (see e.g. Hultén 2002). In the following, I will briefly give an overview of some of the few studies about digital TV and consumers done in the Nordic Countries and UK.

In a Finnish study Kohti yksilöllistä mediamaisemaa ("Towards an individualized media landscape", 2000) consumer views on digital TV was studied by focus group interviews. The study was conducted before the digital broadcasting started in Finland, so the interviews were about the preconceptions of the consumers, not the actual use. Most common images of digital TV among the interviewees were that 1) it's going to be expensive, 2) consumers are forced to acquire it, 3) it requires additional acquisitions, 4) it gives more possibilities to use TV, but also useless services, and 5) it's unaccomplished. The interviewees didn't know much about digital TV beforehand and their relation to it was reserved. When they received more information about digital TV during the interview, their attitudes became more favorable. They also believed in their ability to learn to use the new technology, as they compared it to learning how to use a computer.

The consumers in this study had some wishes and hopes for the forthcoming digital TV. They wished that digital TV would "organize" the contents of television better. In this context they liked the idea of supertext-TV, program guides and specialized channels (sports channel, youth channel etc.). Consumers also hoped that digital TV would improve the quality of sound and picture, that it would be easy to use, and that it would increase different ways of using TV. They also liked the idea of more channels, because it would increase their choices. The consumers were reserved about other possible services that could be acquired through digital TV. Most popular of these additional services would be TV-program guides, news headlines, videos-on-demand, possibilities to choose picture angles, and weather/horoscope services. The consumers preferred TV with fixed costs instead of a pay-per-view TV, because they thought they could then have a better control over their TV-watching.

On another Finnish study (Kantola et al 2002) 14 families were given a set-top-box for digital TV for two months and their opinions and experiences were examined. The families were average consumers who didn't have prior knowledge of digital TV. The consumers in this study felt that issues regarding the antennas and installing the set-top-box were difficult. Another negative issue was the slowness of the set-top-box: changing channels took seconds and starting up was so slow that some thought that it was broken. Nevertheless, the families were quite content with the digital-TV. It gave more value to old TV-sets (text-TV and remote control), it was easy to use after the installing, and it gave them more channels.

A British study by Vivi Theodoropoulou (2002) was based on a UK-wide survey conducted during November 2000 to January 2001 among the subscribers of Sky digital. The average subscriber was male, around 45 years of age, of average to low educational level, in full-time work, and married. The most popular reasons for

acquiring digital TV in this study were 1) bigger choice of channels, 2) better picture and sound quality, and 3) better access to more sports channels, programs and events. The use of interactive services was rather limited. Subscribers preferred Internet as an interface for interactivity. The authors' conclusions are, that the early users of digital TV consume it mainly as television.

Another British study (Counterpoint Research 2001) was carried out in three stages: telephone depth interviews, household depth interviews, and peer group discussions. The users of digital TV in this study were happy with their subscription, because it gave them more channels. Nevertheless, many reported significant problems with the technology they used. The respondents had learned to use the digital TV by trial and error, starting with the services they found most useful. Generally they thought the system was very intuitive and user-friendly. They especially liked the EPG, Electronic Programme Guide, which they used to select the programs. The interactive services of digital TV were seldom used. Interactive services, like shopping, on-line banking, and email were felt to involve work type activities (thinking, rationalizing, judging, assessing etc.), and the respondents felt that their home and television was a more casual and looser environment.

On another British survey (Pace Report 2001) most common reasons to switch to digital TV in the future were 1) because analogue services will be switched off, 2) better quality sound and pictures, 3) movie channels, and 4) more choice of channels. Most popular types of programs in digital TV were news/current affairs, movies, sports and general entertainment. Almost every fourth of the users of digital TV had used it to make a purchase. The most popular goods or services that consumer would be interested in buying via digital TV were holidays and travel, books, CDs, DVDs and videos, and cinema, theatre and concert tickets.

[conclusions]

Key problems and findings

Digital television in the new media landscape

Digital television has not yet been established as technology or cultural form: standards for its hardware and software are in progress while its contents and services are still being conceptualized and tested.

Television's new functions are spread in a cross-media landscape of a variety of terrestrial, aerial, wired and wireless delivery platforms. New hybrid programme formats that use combinations of media are being created.

The practices of television production are changing from audiovisual to multimedia programming, and broadcasting companies are undergoing major organisational restructuring.

There is currently considerable user resistance to acquire digital television. Governments are delaying their analogue switch-off plans up to 2010.

Digital television, with its multiplied channel choice brings about increased competition over audiences. Revenue models for digital television services are still to be found; a majority of audiences is not willing to pay for the added services.

To justify the licence fee, public service broadcasting is expected to secure universal free-to-air service and to introduce attractive interactive services.

Changing media consumption patterns

Television is a social medium – a medium for communicating meanings, sharing time and space. Television is still watched mainly for the 'content' it provides while it also provides a significant context for domestic recreation.

different contexts and modes of use

Media is being consumed across a variety of contexts: the situatedness of use should guide digital media development. (sofa/desk/palm screens, individual/collective viewing). From the consumer's point of view, a mobile 'anytime, anywhere' access to televisual contents would be desirable.

In addition to spatiotemporal and social contexts, the different modes and motivations of use should be taken into account – the same user may wish to be told a story, to learn, or to play in different situations. For development, this stresses layered concepts that allow a variety of usage modes. Digital television will involve both 'passive' viewing and a more 'active' use.

changes in the households

People, especially the young, are using more media but less tv – tv is becoming an ambient medium, a background for other domestic activities.

Digital television use is intertwined with the family's use of time, space and money. Some sources for the resistance against interactive services may be found in the 'family system', the moral economy of the household.

Digital television seems to be changing families' media usage patterns, which currently show tendencies towards both more collective and more individualized use. There are also shifts in domestic power relations: adults may still have economic power whereas children are increasingly the media experts of the family.

new cultures and communities of use

User subcultures and communities often push the limits of media technology and develop socially and culturally innovative solutions which are based on practical needs and communicative wants.

DTV development, in industry as well as policy-making would benefit from interaction with these groups. Active interaction between users and producers is to be found eg. in games development and fan communities.

Local community initiatives – eg. in broadband development – are another significant phenomenon with potential for DTV development.

prosumerism

The notion of prosumer – consumer as producer – is relevant to digital television. In interactive media such as internet chat communities or sms messaging, the users take over the platform for their own content production. Communication among peers – a many to many model of production – is a possible new functionality of television.

It will be important to understand and support the user's creative practices and engage in active reach out projects for audience development. Education and tools for productive consumers could be provided by local centers of even PSBs and commercial broadcasters.

The lacking user perspective

The lack of user perspective currently runs across policy, industry and research of digital television. This is a risk, since the failure of so many IT projects (3G mobile, e-commerce) is very probably due to their neglect of the consumer point of view.

Audience research relating to digital television usually applies market research methodologies, which are quantitative and often fail to produce accurate forecasts of consumer behaviour. Qualitative research is needed to gain a richer understanding of the users and their media consumption.

Participatory and dialogic forms in design, development and policy-making are needed to make the users', consumers' and citizens' voices heard.

regulation and standard development

Insufficient regulation and development of standards on national and European levels works against the user's interests: contents cannot be viewed across the incompatible platforms.

A deregulated free market doesn't seem to guarantee consumer interests – there is a need for concerted efforts to achieve interoperability. Not only the contents and services, but also spectrum planning, platform and interface development should be driven from the user's point of view to guarantee access and usability.

lack of relevant information

The consumers still don't have enough information about digital television. There is considerable insecurity about the actual costs and benefits of DTV, which affects the consumers' willingness to go digital.

Consumer organisations – both governmental and non-governmental – have a key role in consumer education and information as well as in protecting consumer rights, also relating to digital television.

Agendas for consumer policy and research

Towards proactive and dialogic policy

To bring the consumer perspective into digital television, a collaboration and dialogue between different parties is needed. Stakeholders in a collaborative DTV development process and their respective roles could include:

Public service – public service broadcasting should foster active connecting with audiences and guarantee the availability of free-to-air digital services.

Media – journalism should have a moderating role between consumer/audiences and policy/industry while providing information to support critical media consumption.

Research and development – fundamental and applied research should provide qualitative insights of the user's everyday media consumption and bring the understanding back to practice and policy.

Industry – media and technology industries should increasingly emphasise user-oriented design and development methods and foster links with the user and research communities.

Policy – governmental bodies and organisations should support user-oriented initiatives on all levels by creating new kinds of forae for exchange, multidisciplinary R&D and by supervising standard development.

NGOs – consumer/user/audience organisations and communities should use effective campaigns to voice the public interest in DTV and more generally ICT developments.

Nordic consumer organisations

Besides their traditional roles of informing and educating the consumer, testing products and supervising advertising, the consumer organisations should take a clearly proactive stance towards digital television development. Possible initiatives to be undertaken by the Nordic consumer organisations include:

- Lobbying and networking to bridge the collaboration between the stakeholders eg. by making initiatives to add consumer representation in the strategic DTV committees or by creating new forae (seminars, workshops) for exchange.
- Establishing national Viewers' Panels or 'consensus conferences' to supervise industry and policy decisions from the consumers' point of view.
- Publishing information. The information services should provide accurate information about costs, benefits and risks related to digital television, and could also include

campaigns about the consumer's possibilities to affect and participate in digital television development.

- Supporting and initiating research and development projects which increase understanding of the consumers' needs and wants and produce applicable knowledge for guaranteeing the consumer point of view in product development.

Multi-disciplinary research and development

The currently dominating methods in DTV research - surveys, ratings and usability testing - stem mostly from market research and engineering. They are often quantitative and based on seeing audiences and users as cognitive and rational actors. In order to move towards a more qualitative, culturally and socially grounded understanding required in consumer-oriented DTV development, the repertoire of research should be added with approaches such as:

ethnography - observation of media use and production in their actual settings

media, culture and communication studies – understanding practices of communication and signification, qualitative audience studies

social and historical study of technology – social and historical accounts of innovation and technology projects, both successful and failed

content, conversation and discourse analysis – close readings of media products and their contents /contexts of use

interaction and participatory design – methods for user-centred and collaborative product development

The context of digital television is a constantly changing media landscape, where technologies and practices of use and production co-evolve. It is therefore necessary to develop new multidisciplinary research programmes and projects which involve researchers, engineers, designers and creative producers. Continuous user-oriented analysis and testing of the products is a requirement for creating innovations that are not only technical but have cultural relevance and accessibility for the consumer.

Nordic research collaboration

Collaborative, multi-disciplinary research and development is needed to support the evolution of user-oriented digital television technologies and contents. Research actions in the Nordic countries should include:

- Creating national networks for multi-disciplinary research and development by connecting academia and industry
- Organising Nordic and international seminars and workshops for research, practice and policy around DTV
- Initiating multidisciplinary Nordic and European research projects in consumer-oriented DTV development
- Evaluating DTV applications from a user-oriented cultural and social point of view
- Bringing “Scandinavian” – participatory, democratic – perspectives and models to European and international discussions about the DTV.

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[appendix]

Digital television as a consumer platform

**Theme seminar for Nordic consumer research
Faroe islands, September 12-14, 2002**

Organised by the Nordic Advisory Committee on Consumer Affairs
Coordination, Minna Tarkka, National Consumer Research Centre, Finland

The digitalisation of television has so far proceeded in a technology- and broadcaster-driven, top-down manner. Digital television has been conceptualised as a technical platform for delivery of traditional 'contents' and digital 'services' – but the needs and wants of the consumers are seldom mapped out in the development. However, the digitalisation of television is a complex process where the contents, users and technology enter a dialogue and configure each other.

Thus the meaningful development of digital television requires a consideration of the 'bottom-up', consumer-oriented approach. Today's consumers mostly see digital tv as an innovation coming from the technology and media industry – the actual usefulness of the 'value-added' services is not always clear. What could these uses be – and how could the consumer organisations further their development? What is there to learn from research disciplines such as media studies, user-centred design and interactive programme development?

The objective of the Faroe islands seminar is to

- map out research needs and possibilities for consumer-led digital television development
- address the issue of how consumers and consumer organisations could contribute to the process

topics and approaches

From the consumer perspective, digitalisation of television involves – besides the quantitative changes such as increased amount of channels and 'choice' – qualitative phenomena such as

- interactive services, games and e-commerce are added to television
- television becomes a "push and pull" -media
- television may also become a platform for the consumer's own content production and for different user communities
- cross media formats blur the borders between television and other media platforms
- more efficient audience profiling brings along important privacy issues
- a new role is being cast for public service broadcasting

These phenomena are not only technical or regulatory: addressing them requires an understanding of the contexts of consumer's and citizen's everyday life. With the digitalisation of television, traditional TV audiences become *consumers* and *users*. Also the broadcasters have to learn new ways to interact with these new actors – the traditional "we know what's best for you" –model has become obsolete.

Building a new dialogue between consumers and producers requires multi-disciplinary research and development, which ideally includes approaches from consumer research; user-centred/participatory design; media and audience studies; market research; programme development. The Faroe seminar takes a first step towards mapping this set of themes from the consumer's point of view.

PROGRAMME

Thursday, September 12

16.00 Preparatory meeting for researchers
- getting to know each other & adjusting the seminar programme

Friday, September 13

The seminar programme on Friday is common for the consumer organisation representatives (20) and media researchers (10), whereas the media researchers have additional preparatory and concluding meetings on Thursday and Saturday.

9.00 Welcome, Finn T. Aas, chair, NKU
Introduction to the seminar, Minna Tarkka
Overview of research on consumers and digital television, Mika Saastamoinen

9.45 Theme introductions by researchers, followed by discussion

Frank Boyd, *Towards user-oriented programme development – experiences from the BBC*
Olli Sotamaa, *Developing audiences: a community-oriented point of view.*
Commentary, Tanja Sihvonen: *TV chat communities*
Pernilla Severson: *Dialogic policies for public service*
Commentary, Pertti Näränen: *European regulation*
Jo Helle Valle and Eivind Stø: *Digital TV and the moral economy of the home*
Commentary, Tove Rasmussen: *On genres and formats*

Discussion; updating the workshop agenda

12.30 lunch

14.00 Workshop: 2 theme groups
Consumer organisations – responsibilities and abilities, chair Pernilla Severson
Prosumerism, chair Frank Boyd

16.30 Presentation of groupwork results, discussion
18.00 Seminar closing

Saturday, September 14

14-18.00 Seminar wrap-up; plans for further research agendas and collaboration

participant list

Danmark:

Villy Dyhr
Jeppe Læssøe
Folke Ölander
Tove Arendt Rasmussen

Finland:

Marita Wilska
Eila Kilpiö
Eeva-Liisa Koltta-Sarkanen
Pertti Näränen
Mika Saastamoinen
Tanja Sihvonen
Minna Tarkka

Island:

Johannes Gunnarson
Herdis D. Baldvinsdottir

Norge:

Finn T. Aas
Eivind Stø
Paal Bjønness
John E. Andersson

Sverige:

Jens Henriksson
Åke Bylund
Gunilla Jarlbro
Bengt Ingerstam
Pernilla Severson

Grönland:

Uthilia Hilmann
Bo Vestergaard
Niels Petter Gundelach

Færøylene:

Sigrid Dalsgaard
Gunnleivur Dalsgaard
Björgfrid Luding
Kristin Balle
Gerhard Longsberg
Hans Pauli Strøm
Johannes Ertesgaard
Edvin Jonssen
Ingeborg Vinther
Ingunn Simonsen

UK:

Frank Boyd