

Experimenting with New Media for Journalism

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New media are maturing, and it is increasingly evident that they wield great influence on traditional journalism as we find it in newspapers, radio and TV news programmes. The present article¹ deals with two strengths of the new media: their affordance of public participation through the aid of two-way interfaces, and their affordance of greater accuracy in news reporting due to computer-assisted information gathering.

We believe that researchers should engage actively with these new potentials for communication. Technologies should be considered to contain an orientation towards change that can be harnessed by academic research teams as well as by industry laboratories (see Nyre 2009 for the complete argument). The tendency to inspire or induce change in society has always been a strong aspect of new technologies (Winston 1998). Although new technological set-ups routinely create new opportunities for (journalistic) action, this does not necessarily mean that they are investigated systematically, with a clear intention to test our specified communicative procedures. During the 40-50 years in which the information society has been a precise label for the Nordic countries, most of the new technical inventions have not been tested systematically by researchers. For every 100 inventions, there are five or ten that become success stories in the marketplace or civil society, and ninety that are never given a real chance.

The present article presents a research project in which the objective is to test some opportunities for two-way interfaces and GPS-assisted information in specifically journalistic genres. The research team organized an editorial exchange of information in two internet-based media and documented the ongoing events for one to three weeks in 2005 and 2009, respectively. The project did not predict a definitive outcome of the experiments, and was as such explorative, inductive and heuristic. *Demostasjon* (2005) combined telephones and the Internet, and we tried to include as many people as possible in a public conversation. *Lokanytt* (2009) was an online newspaper made for mobile phones with GPS, where we tried to be as geographically accurate as possible in our local news reporting.

Both projects acknowledge that the mobile phone will be an increasingly important reception platform, not just for web news, but also for radio, television and other media set-ups. While journalism in radio and television has a tradition of 80-90 years to draw on, journalism for the mobile phone has barely been acknowledged as a topic of research (see Ling (2004) and Katz and Aakhus (eds.) (2002)).

The present article briefly presents the design method we have developed, and we relate to three Nordic research projects that in one way or another resemble ours. Thereafter the Demostasjon (2005) and Lokanytt (2009) experiments are presented, and our procedures for democratic participation and geographical accuracy are described in some detail, and the main findings are presented and discussed.

Combining Information Science and Media Studies

Our method can be described as a form of interaction design in which communicative patterns in sound, pictures and text are tested. Unlike a great deal of media research, this type of approach requires a production and distribution infrastructure, and it is therefore vital to collaborate with more technically minded researchers from the fields of media production and information science. Media researchers are traditionally not prone to getting involved in the practical art of creating infrastructures, procedures and content.

We believe that it is highly fruitful to mix methods from information science with theories from media studies. Information science is a relatively hard science, in some respects resembling engineering and in others resembling quantitative social science. The field has a well-contained object of study (the computer) and efficient methods of investigation (see Nielsen 2000). Relying on databases, interactive functionalities and web designs, this tradition can investigate all kinds of applications, whether they are public institutions or private companies. This constructive contribution to society is a great strength of information science.

Media studies, on the other hand, is a soft science without a well-contained object of study. Its practitioners do not consider it a science at all, and prefer to call it media 'studies'. Media researchers are very good at analysing society in different respects, such as 'the public sphere', 'text', 'democracy' and 'participation'. This kind of humanist and sociological research is fruitful for understanding differences in national identity, language and politics, and aspects of social life that have deep historical and cultural roots in the past. In sum, both traditions have strengths that cancel out the weaknesses in the other. Information science has good design methods and media studies has penetrating social theories.

But two traditions cannot be combined so simply. The fear of technology among media researchers has long been an obstacle. Only in the 2000s has media studies started to acknowledge the great importance of technologies in the cultures of mass media. Marshall McLuhan [1964] (1994) stressed the importance of investigating technologies already in the 1960s, but in the radical mood of the times, he was ridiculed as a technological determinist. Ever since then, media researchers have feared being labelled 'technological determinist' (Smith and Marx (eds.) 1994).

The dominant traditions of media studies, like cultural analysis, public sphere theory, media sociology and journalism research, are almost entirely without substantial theories of the role of technologies, and are completely oblivious to the invention-character that is built into technologies, and the radical material difference between each of them.

In order to succeed with experimental approaches to the media, it is important that Nordic media studies make long-term alliances with information science and learn from its much more solid competence concerning the design of technologies using experimental methods. However, because media studies has little experience of the theories and defi-

nitions of technological designs, it is unlikely that media researchers will have the same way of conceptualizing technology as information scientists do. The vocabulary and ways of speaking about technology must be aligned so that the two fractions can speak to each other (see attempts in Fagerjord 2006; Liestøl and Rasmussen 2003; Engebretsen 2007).

To illustrate the ‘aligned’ type of research we are aiming at, we will present three Nordic research projects. They serve to illustrate the three-pronged method practised in Demostasjon and Lokanytt: building a technical set-up, creating content and monitoring user experience.

First let us consider a project that bears very little resemblance to media studies, but is directed by Norwegian media professor Gunnar Liestøl. *Inventio* consists of several prototypes for augmented reality presentations of ancient infrastructures (a burial mound containing a Viking ship, the first brick building in San Francisco) (Liestøl 2009). Looking at the screen of an Iphone, the user can move around the site and see the original placement of objects, houses, etc. superimposed on the reality that the camera picks up live. It is intended to be a pedagogical way of learning about history. The most interesting feature is that *Inventio* builds its own technological solutions, and as such is highly amenable to improvement (albeit also highly resource intensive). The Demostasjon and Lokanytt projects also build our own technological solutions, and can in this sense at least be compared to the *Inventio* project.

The next project looks a little more like a media studies project, because it deals with the making of textual and graphical content. Jürgen Scheible in Helsinki has run a project called *The Manhattan Story Mashup*. It was an interactive design project that aimed at creating mass participation in a photo art project. During the event, 184 participants walked around in Manhattan taking photos that matched various assignments. The result was 115 illustrated stories that were shown on large public signs in Times Square as the experiment progressed (Scheible, Tuulos and Ojala 2007). This resembles participatory action research (see Fals Borda 2001). Again, our project is inspired by other projects that create real-time media events with specific procedures for presentation of text, sound and video in order test how users react to them.

Third, we have an example that is surely a form of media studies, but not very widespread at Nordic media departments. It deals with the monitoring of real-time user behaviour to gather empirical data about media experience. Lisa Gjedde and Bruno Ingemann (2008) have made a series of usability tests of media set-ups. In the *Mirage Project*, they tested the experience of reading news stories by supplying four different photo designs for the same text content, and interviewing the informants concerning their opinions about the different versions. In the *Museum Inside Project*, they used a method called ‘walk video’ to record the movements and conversations of informants walking around in a picture gallery. All the communicative behaviour in our experiments is recorded in similar ways as Gjedde and Ingemann do, mainly in the form of sound recordings of conversations and questionnaires to test users. We believe that usability testing has great potential in the context of journalism research, and especially in Lokanytt 2009 we applied it carefully.

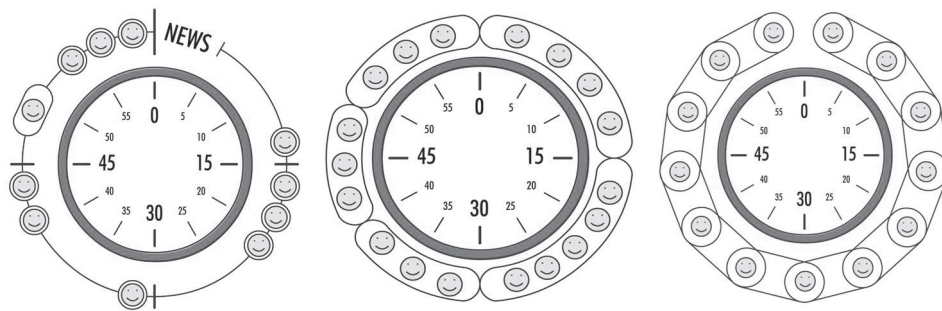
Demostasjon 2005: Democratic Debate on Web Radio

Demostasjon was an experiment with live conversation on a ‘website telephone radio’. The project was an attempt to slow down the pace of public debate in a traditional radio

context. We wanted to have as many people as possible speaking for as long a time as possible about a topic of public interest².

This communication apparatus does not contain any technical novelties, and can be called an ‘architectural innovation’ in that it combines already existing elements in a new way. The combination merits being conceived of as a *prototype* for public speaking, a departure from traditional uses of the three media in isolation. The term prototype means a full-scale and functional design, including technical, journalistic and participatory features. This hybrid configuration of contact was chosen to exploit what we considered the most democratic features of the three already existing media. See Winner (1986) and Feenberg (1999) for further theoretical validation of democratic technology.

Figure 1.



Note: The number of participants is shown by face icons, and the duration of their on-air presence is indicated by the oval encirclements. From left to right: a political phone-in programme on BBC London, the Demostasjon 1 group procedure, and the Demostasjon 2 chain procedure.

Figure 1 displays how many speakers we could accommodate per hour. Because Demostasjon was basically a radio service, Figure 1 contrasts our procedures with a phone-in programme on the BBC. The left-hand illustration shows the pace of BBC London’s debate programme in the run-up to the mayoral election in 2004. It is quite liberal in the time it affords callers, but the host and the incumbent mayor dominate the debate, and furthermore the callers cannot talk to each other (see Ross 2004 for an interesting analysis of political talk radio, and Enli 2007 for participatory formats in general).

The Demostasjon group session shown in the middle illustration was our first original set-up. In this procedure, called the group session, each speaker could be on the air for up to twenty minutes, taking turns speaking, and having the opportunity to speak up at any time during the entire twenty-minute period. Up to ten speakers were on the air at the same time, but the collaboration suffered if there were more than four or five. The topics were highly inclusive, for example “Student life” and “Music”.

The Demostasjon chain session shown in the right-hand illustration was our second procedure. Here each speaker discussed with two other speakers, the first one being taken off air as the second one appears. The topics were all related to the General Election in Norway in 2005. Each speaker was typically on the air for 4-5 minutes. The debate was quite lively, especially if the participants had listened to the discussion before they went on the air – something we encouraged them to do.

What about the communicative behaviour in these programmes? Two distinctly different sets of rules were adopted. In the first format, *topically restricted debate*, participants were obligated to keep rather strictly to the predetermined topic of the programme, and had to defend a position, which was often the reason they were invited to the programme in the first place. Everybody was entitled to a main statement, one or more comments, and a closing argument. This format was used for discussing ‘Freedom of speech’, ‘Democratic radio on the Internet – is it possible?’ and ‘Media research and societal change’, and was clearly the most deliberative format. It soon became clear that this format was easier to relate to for those of our experimental participants who worked in academia, politics or journalism, while students, random family members and other people who did not have a clear position on a topic, and were not used to conflictual debate, felt uncomfortable in this format.

The second format, which we called *everyday open conversation*, was created after noticing the relaxation that four-minute speaking periods inspired. Its purpose was simply to emulate everyday conversations on the air, and to test the extent to which participants were actually able to relax while still talking about substantial issues. The format was used for discussing ‘Men and women’, ‘Student culture’, ‘Studies abroad’ and ‘Music’. We learnt that groups of students quickly started talking to each other in ways that were very relaxed, resembling private phone calls more than public speaking (Fagna, Braaten and Brattland 2007). Although several of the participants were already friends, we believe that the four-person group sessions were instrumental in facilitating such seemingly natural conversation. This is a valuable discovery that should be explored further.

We learnt that participants found it quite easy to participate because there were so few listeners. It seems that the smaller the public reach of the programme, the greater the people’s interest in participating. But journalists did not like this talk-radio format. The journalists felt marginalized on the air, and this was frustrating. The most demanding editorial job was to recruit and moderate the chain of speakers, and that did not feel like a real journalistic task (Bjerke 2007). Disregarding these misgivings, we formulated a series of four characteristics of democratic phone radio.

1. Produce all programmes live on the air. There should be no preparation of edited journalistic material like reportage, interviews, monologues, etc. Live productions can easily accommodate a communication setting that everybody is familiar with, namely the direct give-and-take of verbal behaviour. Everybody is on the same footing, and what matters is to say the right words at the right time. The less edited and post-produced the presentation is, the less the expertise of media professionals has intervened in the mediation process. Live programmes thus afford a more egalitarian technique for public speaking than recorded programmes, and furthermore this is a simple and inexpensive means of creating media content (see Nyre 2008).
2. Acknowledge the tensions and energies of ordinary talk. The Demostasjon experiment further confirmed that there is great dialogic potential in live speech, and suggests that layperson discussion has qualities of sincerity and authenticity than are often lacking in professional journalistic talk. Everyday speech is the main arena for personal opinion and conflict, arguments and counter arguments. This is a style of speaking that can clearly be cultivated more consciously in the public sphere.

3. Make the hosts inconspicuous. Their work consists of moderating the conversations according to the procedures of a given approach (series, group, chain). The hosts do indeed put restrictions on the behaviour of participants, but they are obliged to let the same restrictions apply equally to everyone. Insulting or defamatory statements must be advised against, and sanctioned by the hosts when they occur. Because everybody is entitled to speak for approximately the same time, this must be cued by the staff accordingly. In performing these chores, the hosts resemble switchboard operators more than traditional hosts. The journalism students who worked as hosts in Demostasjon were frustrated by their very limited freedom of expression.
4. Recruit participants actively. This type of journalism cannot function without a large number of volunteer participants. And in order to make the programmes politically relevant, some variant of socio-demographic representation should be considered. People may be recruited by direct contact from the production staff, or be self-recruited through the website, but in both cases, a great deal of preparatory work is needed to ensure a good selection of speakers.

Summing up the Demostasjon experiment, we found that our technical and procedural set-ups worked fine as mechanisms, but this is not enough to give them a future in the public sphere. From a business perspective, it would be time-consuming and costly to try to run such a station in reality. It could only be launched on a niche station at a public broadcasting service, or as a therapeutic service at a hospital or care facility.

Lokanytt 2009: Local Journalism for the Mobile Phone

Lokanytt³ has the same basic ambition as the previous experiment, namely to enter the control room and organize a media set-up that presumably creates a valuable exchange of information in the public sphere. But this time the focus is on local news.

The mobile media platform is an important arena for design and innovation previously primarily associated with the stationary or laptop computer. Following this line of invention, *Lokanytt* was designed to be a GPS-based public arena for the mobile phone. However, the mobile phone does not yet have an indigenous public space in which the news could appear equally for everyone who has a phone (for recent studies, see Bentley and Metcalf 2008; Westlund 2009; Junglas and Watson 2008). Traditional radio and television stations like the BBC or YLE have just that, of course; they have loyal listeners, a distinctive station identity and a range of established news genres that are tailored to the reception setting in different countries and cities, and the content changes with the time of day.

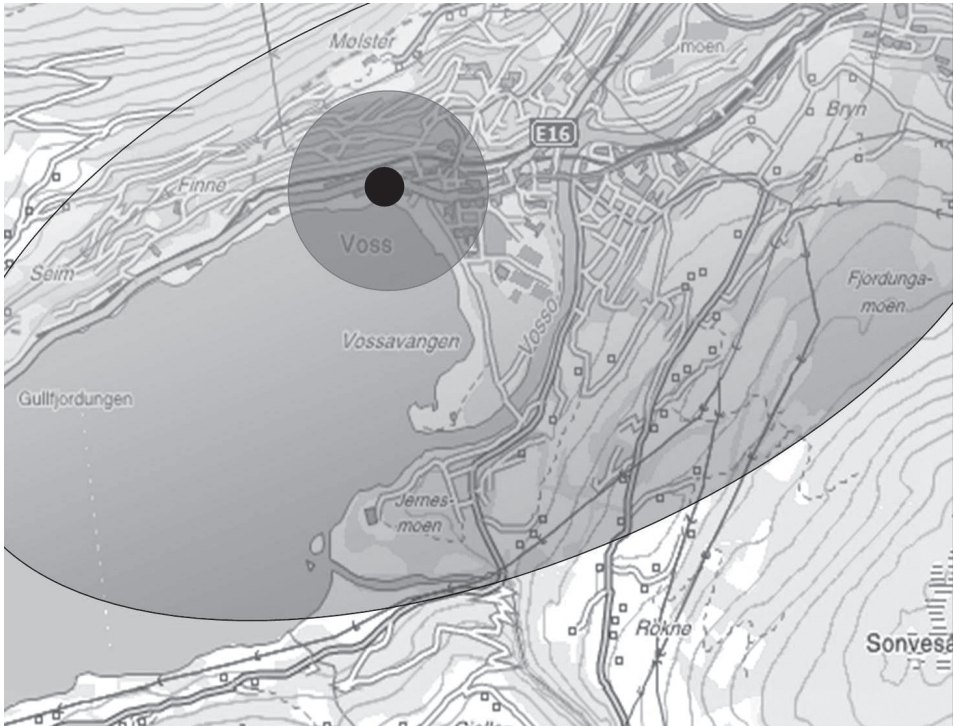
The discussion of what journalism for the mobile phone should consist of is critical for the democratic states of Western Europe and beyond (see Drotner 2005), where the mobile phone has almost reached 100 per cent diffusion in the population. How could the technologies in question be designed so as to make the most of the new information for journalistic purposes?

The ambition is to change the scale and pattern of news journalism by writing it for mobile phones with GPS-functionality. The Lokanytt project is based on two separate pieces of software for journalists and readers, built by two Master's students graduating in information science (Leirvåg 2009; Stavelin 2009).

In Lokanytt, a newsroom staff augments a pre-specified territory with journalistic items about events, activities and localities. They accumulate in the territory in the form of virtual news beacons created using GPS data. When you arrive at a certain location, a certain piece of information becomes available to you. Instead of including as large a space as possible in the communicative process, Lokanytt excludes most parts of the world actively from being part of the content.

We presume that the more local a news item is, the lower its threshold of relevance will be. Almost anything can be of interest if it is right next to you and you can easily read about it.

Figure 2.



Note: We defined three areas of proximity for Lokanytt. The figure shows a typical layout from the town of Voss, where mountain slopes, rivers and lakes create a natural ellipse in which most of the population and its transport structures are contained.

Figure 2 shows our geographical set-up for an experiment that took place in the town of Voss during an extreme sports festival in June 2009. The town of 7,000 inhabitants was filled with from 1000-3000 athletes, volunteer staff, onlookers and ordinary tourists

Our journalism was based on representing three areas of proximity to an event or an object. These areas are represented in the form of self-contained articles with headlines, news writing and photographs. Given our way of using the GPS information from their phones, the readers would only be able to access the article that corresponds with his or her proximity to the chosen locality. Let me explain what I mean.

In the largest perspective, the reader is more than 500 meters away from the locality. The news is written to be interesting for anyone who is in Voss, or is approaching Voss on the roads or the railway. It has a critical perspective and focuses on decision-makers and other powerful persons and organizations.

In the middle-range perspective, the reader is less than 500 but more than 100 meters away from the location. The news story is written to capture the social mood in a given neighbourhood, and we distinguished between three neighbourhoods in the centre of Voss. You can walk to the exact location of the story in a matter of minutes, if the story captures your interest.

In the nearest perspective, the reader is on location, defined as nearer than 100 meters. Interviews and witness reports are written in a personal way, to increase the sense of presence. You are so close that you can touch and handle the news topic, or learn what has happened or will happen right here if the topic is more abstract.

Figure 3. Facsimile of the three versions of the “Cloths Line Saga”



This story trio can be labelled the clothes line saga. The stories are written in the imperative, meaning that they recommend that the reader move to a certain spot in the centre of Voss, because the sight of the giant blankets is presumably quite interesting.

The level-three version of the article describes a clothes line that hangs across a river canyon in Voss. It is more than a kilometre long, and the clothes are 40 to 60 meters long. Readers learn that this is a PR stunt by the Bula sports wear company, and that the company has performed other PR stunts before – always using the natural environment at Voss as the setting. This article contains critical opinions about the spectacle, in that several people voice objections to the ugliness of the spectacle and argue that it should not have been allowed.

The level-two version is located in the neighbourhood where you can best see the clothes line from across the lake. There are interviews with tourists, local people and

café guests, who all have an opinion about the clothes line. The best position for looking at it is described, and the reader is encouraged to go there.

The level-one version contains information on how they have stretched the wire across the canyon, and other facts that presume a detailed interest. It basically confirms that you are in the right place, and can now enjoy the spectacle with maximum effect.

Figure 4. Summary of the Geographical Perspectives Contained in the “Clothes Line Saga”



So what are we learning from the Lokanytt experiment? Three findings stand out so far:

1. There is resistance to the proposed procedures in the set-up itself. Our journalists had problems adapting to the news criteria and the three zoom levels, and it was very time-consuming to write three versions of all news topics. There would be a long period of “learning how to do it”, and it would be costly to keep up production.
2. The GPS-based precision is highly engaging for users. Instead of three different versions creating a zoom effect, only one version of the journalistic news item is needed, and it should be placed on a map. A large number of news items can be accumulated on the map, and links to information beyond this exact point can be embedded.
3. The potential for critical journalism was weaker than we had thought. Our informants had difficulty seeing this as true journalism, and recommended that it become a local information service instead – for example for a festival.

Conclusion

The change-orientation of technologies is an important aspect of the media (Winston 1998), and we have described two attempts to tap the strength of new media for journalistic purposes: meaningful public participation through the aid of two-way interfaces, and greater accuracy in news reporting using GPS-assisted information-gathering. We learnt that the procedures we had designed worked well in our protected university settings, but we suspect that they would be very difficult to apply in the real media industry. We learnt that both the *Demostasjon* and *Lokanytt* designs would probably be too costly for real media enterprises. They would require great resources in terms of editorial preparation, and too few users would be attracted to these new media for it to be possible to turn a profit. Notice, however, that our communication procedures would probably be highly beneficial to those who used it.

From this we conclude that the financial models that are widespread today are not conducive to the pursuit of the core ideals of the fourth estate. Our new media journalism is so expensive to produce that we would need something like the business model of the 1950s monopoly public service broadcasting in the Nordic countries to finance it.

We have no illusions that the journalistic procedures presented above will be taken up in the media business, but we still find them worth presenting. They show how particular media set-ups can be tested systematically in the search for journalistic potentials.

Notes

1. This argument was presented as a speech at the 19th Nordic Conference of Media Researchers in Karlstad, Sweden in August 2009. Gratitude is owed to the students and researchers involved in the *Demostasjon* 2005 and *Lokanytt* 2009 projects. Special thanks to Barbara Gentikow, Sverre Liestøl, Reidulf Botn, Egil Skogseth, Paul Bjerke, Bjørnar Tessem, Kjetil Vaage Øie, Solveig Bjørnstad, Pål Aam, Christine Leirvåg and Eirik Stavelin for their important input on this paper during the past few years.
2. *Demostasjon* 2005 consisted of 10 programmes, with over 9 hours of public speaking streamed through the website www.demostasjon.net, 89 laypersons participants, and an editorial staff of 11 people. It consisted of two iterations: *Demostasjon* 1 (three weeks in April 05) and *Demostasjon* 2 (one week in September 05). See www.demostasjon.no. See Nyre (2007) and Skogseth (2006) for presentations of the project.
3. *Lokanytt* (2009) consists of over 100 news stories in three versions, 88 informants, original software for editorial production on the Web at lokanytt.uib.no and audience reception on a Python script for mobile phones. 4 information scientists, 3 media researchers, 5 journalists/photographers. 32 usability tests with test phase and questionnaire. Three iterations: *Lokanytt* 1 in Bergen in February 09 (five days), *Lokanytt* 2 in Volda in May 09 (five days), and *Lokanytt* 3 in Voss in June 09 (eight days). See www.demostasjon.no.

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