

Guest Editorial



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2001 is a year filled with several events for mobile communications. In September we can celebrate the 20th Anniversary of the NMT 450 system in Norway. Another event is marking how mature mobile communications has become. On March 1, Telenor shut down its NMT 900 network. Later this year, UMTS will be launched.

The year 2001 has long been a symbol of the future. In 1968 Stanley Kubrick directed the movie "2001 – A Space Odyssey" based on Arthur C. Clarke's novel. It is worth noting that most of the advanced technology described in this story is still not available. However, there are ideas and concepts which many engineers and scientists are much closer to now than 33 years ago. Even though we must all hope that computers will not develop the kind of behaviour of the mentally unstable "HAL 9000", *talking* to computers has now become feasible. Speech based services are now being introduced in the telecom networks, with respect to recognition as well as synthesis. In his journey towards the space station "Hilton", Dr. Heywood Floyd used an advanced video phone to wish his daughter a happy birthday. Video phones have not become widespread so far, maybe because people feel uncomfortable and unrelaxed by knowing that they can be viewed from the other end. The telephone, short message services (SMS), Internet chat, email etc. give the users some degree of "shield" against privacy intrusion. Clarke's story gives an interesting view of what may happen when humans must relate to very advanced technology, but generally a positive attitude towards advanced computing and communications is brought forward.

A more pessimistic scenario is described by the Norwegian writer Tor Åge Bringsværd in the short story entitled "Codemus" (Norwegian: Kodemus) which was published in 1970. The story was also dramatized for the TV theatre in 1971 by NRK (the Norwegian Broadcasting Corporation). This story is a dystopian view of a future society where every person has his own "Little Brother" (women have "Little Sisters"). This pocket device functions as a personal terminal with telephone, diary, alarm clock and everything a person needs to function in this society. And it is completely speech controlled. It has continuous contact with a central database ("Big Brother"?) and one can not turn it off. The main character in this story, a young, single male

named "Codemus", suffers the problem that his Little Brother malfunctions. It gets disobedient to the central server (computer virus?) and directs Codemus to oversleep, not to go to work, approach a young lady (dating and marriage are strictly controlled and arranged by the central server) and even throw away his Little Brother. Little Brother insists that Codemus makes his own choices in life, however, he is not used to this and gives up and lies down crying in a park. Finally he is "saved" by automatic surveillance robots and taken care of. Codemus gets a new Little Brother and is happy again.

This is a science fiction story as well as a social satire. It points out the negative consequences of advanced computer and communications technologies if used by authorities as a means of social control. It also points to the danger of being too dependent and reliant on the technology, so that if it breaks down, we do not know how to handle simple everyday situations. Just think about our own reactions if the email system or the cellular phone break down during a normal working day.

This issue of *Teletronikk* is dedicated to what is happening at the frontier of mobile and personal communications. You will find papers from leading specialists in fields ranging from user and service aspects down to basic radio transmission problems. The content is organised in four thematic sections: *Basic technology*, *Heterogeneous access*, *Network enhancements* and, last, but not least, *User and service aspects*. Additionally, there is an introductory section giving a broader view on the visions and foreseen trends "beyond UMTS", or towards 4th generation mobile communications.

Most of the papers are technology oriented but future mobile communications is also about providing advanced personal services on a pocket device to users, and the human and political sides are important to be aware of when developing the technology. Some of the questions are: Who is going to control the technology? Does anybody "own" the user? One of the subjects handled in this issue of *Teletronikk* is *user-centric communications*. It is time to put the user in focus, and let her/him control the situation.