POLITICS & INTERNET

CONGRESS

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Foreword

Challenges for Democracy through Effective Networking

The opportunities to wield influence available to both citizens and decision-makers on the highest level are constantly diversifying and strengthening. Why this congress and why in Finland? As a result of the work done by the Committee for the Future in the Finnish Parliament, we have found many interesting answers to the challenges that the information society is throwing up. To us the flood of information is not a burden, but rather something that presents new opportunities. We only need to step briskly forward on the road of managing information and putting it to effective use. Recent years have seen the introduction on an enormous scale in Finland of new methods and means of interactivity and networking. New social and cultural innovations are likewise being developed at a brisk pace in this country. Thus it is very natural for us to be engaged, fresh-mindedly and through broad cooperation, in seeking new contents and ways of doing things also for democracy.

My vision for Finland — one that could well become reality within the next few years — is for this country to serve as an information society laboratory for the whole of the EU. In that scheme, we the people would use the most modern technology available and in the process play a crucial role in the development of social innovations. The third feature of my vision of a knowledge society is a passion for learning, which inspires people and communities to network so that they can share their knowledge openly and effectively.

This gathering has tangibly shown that our Western democracy is in positive transition. Some key principles, namely participation, openness, caring and trust, are becoming ever more important as a result of rapid technological development. At the same time demands with respect to quality of life and welfare are requiring us to deal with new and important aspects of these principles. Everyone has growing opportunities — and an obligation — to strive for success. At the present stage of development of our democracy — in a turbulent world — it is important to emphasise the responsibility that everyone bears for others and the natural environment. Success, as we in our Committee for the Future defined it, must be seen as a concept considerably broader in compass than just economic success. Success on the part of an individual or community is the achievement of the goals that they themselves have consciously, and in part unconsciously, set. Success by a society means providing the preconditions for citizens to have a good life. Improving opportunities for citizens to participate and increasing equality, environmental sustainability and fairness are characteristic features of a successful society.

We in Parliament would like to express our thanks to all the congress participants and organisers, including the countless voluntary workers, whose enthusiastic efforts have made this event a success. Working together, we exceeded all of our expectations, indeed even by a wide margin. This congress is an ongoing process in which the forerunners met face-to-face in Finland and will keep on meeting on the Net to shape the future we want. I invite you to continue participating in this development process.

Markku Markkula
MP, Chair of the Programme Committee

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From the editor

On behalf of the Committee for the Future, I'd like to thank all of you for taking part in the POLITICS&INTERNET Congress. You've helped us to have a successful, colourful, exciting conference in which different kinds of people and organizations have been able to meet and exchange ideas about the future.

I want to give special recognition to those of you who have put this booklet together. I asked you to prepare your texts in a couple of weeks because we wanted to publish the main results of the congress immediately, and I know very well that you are very busy experts — but you understood what publishing something quickly means.

As the main organizer of the congress, the Finnish National Fund for Research and Development (Sitra), will be publishing a variety of materials from the congress on the Internet at www.kolumbus.fi/pi99. Sitra is also planning a special CD on the congress' findings.

This more traditional type of report, edited by the secretary to the Committee for the Future, incorporates only those presentations that were ready — or almost ready — as of the beginning of February. In the case of keynote speakers who were not in a position to submit a text ready for publication, we have decided to present summaries or utilize press analyses of the speeches.

This express booklet embodies the style and atmosphere of the Second POLITICS&INTERNET Congress. The congress was planned, organized and financed with one-third of the resources normally devoted to such an undertaking. When we at the Committee for the Future were discussing how to organize the congress, the experts all said that it would take three times as much time, work, and money. Elections will take place in Finland in 1999, and we knew it would be a long time before we had another real chance to hold such an event. We therefore thought that if we took into account the eagerness of the volunteers around us, we could handle the job. As a civil servant, I especially appreciated that 3 MPs from the biggest parties — **Kalevi Olin** from the Finnish Social Democratic Party, **Markku Markkula** from the National Coalition Party and **Kyösti Karjula** from the Finnish Centre Party — toiled away as any other volunteers would. Representing both the Government and the Opposition, the three were firmly committed to the project from beginning to end.

As the President of the Republic Martti Ahtisaari said when he addressed us at the congress, *"The idea behind this Second POLITICS&INTERNET Congress has been from the outset to get citizens involved in many ways, both directly and through their representatives. The arrangement of a conference on so many levels has certainly not been easy. But democracy is such a wonderful thing that making an effort to increase it is always worth while."*

So we took the risk. It was a wise decision. We succeeded beyond my expectations. There are many criteria and means of measuring success, one of them being publicity — and the themes of the congress, say nothing of its speakers and discussions, must have been interesting, for Finland's media published or broadcast more than 150 reports and interviews on the event.

My warm personal thanks to all of you who have helped us and have receive nothing more than the joy of working in return.

Dr. Paula Tiihonen
Counsellor to the Committee for the Future
Parliament of Finland

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SECOND AND THIRD DAY:

FIRST DAY

WEDNESDAY
JANUARY 6, 1999

LASIPALATSI
AND KIASMA,
HELSINKI

Martti Ahtisaari
President of the Republic

Speech

In the 1990s we have seen more and more features of an information society appear alongside those of the traditional industrial society. So far, however, we have been doing things on technology's terms; now it is time for people to assume the leading role.

We must give some deep thought to what the change means for people's lives and their wellbeing. For example: the relationship between work and livelihood will not necessarily be the same in the future as it is now. The assumptions that have traditionally been made by social scientists are no longer valid everywhere. We are facing a similar search for the new in social policy. The old means of political guidance have already lost some of their effectiveness.

Regrettably often, we have conceived of the information society mainly in terms of technology. Our thinking has been that the changes accompanying technology are in themselves the force that transforms society.

In recent years, however, we have begun to understand that when factors like the Internet eliminate the barriers of time and place, what we are dealing with is not just technology. A bigger change is taking place in the structures of organisations and in the ways they function. We generally make two mistakes when we predict the future. We overestimate short-term changes, and we underestimate the long-term ones. Talking about the information society against a time frame of a couple of decades is unrealistic. Now there is a greater danger of our not being able to understand the magnitude of the challenges awaiting us.

The information society has no value if we understand it only in terms of technology. The only things that make it worth striving for are that it could dismantle the old hierarchical structures, increase people's freedom and make genuinely sustainable development possible. The Internet is a new tool, which in itself solves nothing. What is more important is the use to which the tool is put. We need insight and skill in relation to politics, economics, culture and media before a network economy and a network culture are born of the information web.

Big social questions always affect the individual. One central concern relating to people's future is work. Will the information society provide enough work for everyone and will everyone be able to take part in the work of the information society? How will we be able to take care of those citizens who possess less knowledge and skills so that they too will be guaranteed the right to play a role and be useful, something that is a basic human need.

This is a problem that scientists and politicians share, although for the former it is on the level of theory and for the latter very much a practical one.

Worries about jobs disappearing are often well-founded. If rationalisation and automation, in both the private and the public sectors, are carried through as quickly and thoroughly in the major EU

countries as has been done in Finland, it is possible that millions of people will become redundant in so-called sunset industries over the next few years.

Global competition makes it just as essential to boost the efficiency of the economy and production on the European level as we have done in Finland. Change in society has always spawned also new jobs and opportunities for wealth creation. The problem is one of ensuring that different segments of the population are able to adjust to this change.

In a more general context, we must ponder how we can keep all citizens involved in fast-paced change. We can prevent the division of societies into the well-off and the deprived only if we can succeed in drawing everyone, irrespective of age, education and wealth, within the compass of the abilities and potential of the information society.

There is an old tradition of popular education in Finland. All citizens have a basic right to learn. This same ideal of popular education is needed now both here in Finland and everywhere in the world.

It is not just children and young adults who have a right to learn. The same right applies just as much to those adults who are in danger of being left behind in the onward rush of development.
It is shocking to note that our society has changed so profoundly that in the parlance of officialdom we have begun calling the over-45s ”elderly employees”. Does this mean that experience, wisdom and the importance of guidance have been completely forgotten in our modern society?

We are now having to test our own values. It is a tough challenge, at least for us Nordics who respect equality in society. If we want to ensure that all citizens are adequately prepared to cope in an economy and society founded on knowledge and skill, we must take special measures. Yet there is an obvious danger that only the strong and the capable will do well.

Can it be that the old means of ensuring equality are not enough? It is time to reflect open-mindedly, and without mutual recrimination, what structural reforms – of a kind affecting all citizens – would be needed for the information society. What abilities are demanded of people? What kinds of tools should they have?

I shall take one example of a matter on which I have not yet reached a conclusion of my own. In order to increase equality, it might be a good idea to begin teaching all Finnish children aged 3–4 English alongside their mother tongue at kindergartens. If we think of the best interests of the nation as a whole, a good command of English could be nearly as important a precondition for equality in the digital global economy of the 21st century as universal literacy and elementary education for all were in the past.

However, this idea also prompts doubts. Will competition be so tough in the future that we shall have to harness our children into intensive training while they are still toddlers? What does it reveal if we say that the most useful way children can spend their time is learning English? I hope this congress will devote some of its time to such matters.

The American Professor Amitai Etzioni, who recently visited Finland, has already expressed his deep concern about the ability of people to cope with the technological-economic race. He argues that in their scramble for efficiency the Americans have lost the joy of work and also many of the other enjoyments of life. Life has become a forced pace.

I would like you to reflect on whether there are any alternatives to this.

We are living in an information society, but our ways of doing things, our machinery of administration, our economic thinking and our management methods are still rooted in the hierarchical models of the industrial society. Indeed, some of them can even be traced back to the days when the realm was stratified into estates.

Both as an international official and now as President, I have tried to do my bit to increase equality and freedom. I have found it important to bring societies closer together, but also to increase openness and flexibility within them. I have, however, noticed that hierarchical structures can never be dismantled without resistance. A tendency to oppose change is deeply ingrained in all of us.

In the new society, esteem and a position of leadership no longer derive from status, but rather from the respect that flows from will and skill. Leadership means a capacity for cooperation and an ability to change rigid structures into open ones. Leadership means allowing also others space.
It is in this that the great democratic potential of the new society lies. People's own initiative, their ability to become and remain involved in information and economic networks is the only real counterweight to the oligarchy that always lurks in the background.

Unfortunately, we do not yet know how this opportunity should be used. What we do know in Finland is how to come up with technological innovations. Among the sectors that are the focus of reform efforts, there is, however, one that has received rather little attention: democracy.

Considering the revolutionary changes that the late decades of the 20th century have brought in the world economy, science, technology, and data transmission, it is hardly unreasonable to expect that the political system underlying everything be modified as we make the transition to the Third Millennium.

Parallel to technological innovation we need social reforms. To produce them we need many kinds of people: researchers, public officials, politicians and – of course, active citizens.
In this respect, the ideas of one of the keynote speakers at this congress, Professor Benjamin Barber, are very interesting. They will certainly prompt a discourse that will continue after this meeting has ended.

I am glad that today we can take also concrete steps in the development of new models of democracy. For this we can thank – naturally – young people, for whom conceiving new ideas is the same thing as building their own future. Today, as it happens, we shall see the introduction and inauguration in Helsinki's neighbour Espoo of an Internet version of the "Teledemocracy" experiment launched by the city's Youth Council. I believe that the experience gained will attract interest also beyond the borders of Finland.

The idea behind this second Politics & Internet congress has been from the outset to get citizens involved in many ways, both directly and through their representatives. The arrangement of a conference on so many levels has certainly not been easy. But democracy is such a wonderful thing that making an effort to increase it is always worth while.

I wish you success in your work.

Riitta Uosukainen
Speaker of the Parliament

Welcoming Speech at Kiasma, Museum of Contemporary Art

Ladies and gentlemen

The new information technology takes us to a new, still unknown world. A world without distances, a world of cooperation and networks. It brings us new values, new ways to work, spend free time, communicate and live.

What does this mean to the politics, democracy, to the possibility of our citizens to have their say in our common matters?

To my mind, the basic issue is not, what kind of tools and gadgets we have, but for why we have them.

The new technology and media, the train, the telephone or television were all first met with some reserva-tions. They were thought to be – if not as nuisances – at least a useless waste of money and time. Now they are inseparable parts of our life.

Computers offer us a large opportunity, but the most successful creators of content are those who have brought us games and entertainment.

The citizen may expect another, more useful kind of content. Many of us operate daily a Word Program or e-mail, one Finn in Finns takes a look in the Internet every week. But this is only a beginning – you ain't seen nothing yet.

The infomation technology goes forward in the fast lane. But what is it going to offer us?

At first the internet sites were like billboards, passing on messages from different organisations. Informa-tion as such is important but more than that is needed for human communication.

The net now provides us also some services and interactive communication. We may follow from the net some events as they happen – live in picture and sound. Volumes of ever more sophisticated information is stored and filed for our use.

The net offers us buys: travels, books, appliances, anything. The handicapped may even order their daily food from the net.

But what does it offer to public life: for example legislation, government and politics.

The Parliament of Finland has been in the net since 1994. The legislative process and our debates are now more transparent and subject to closer public scrutiny than they were earlier. Our members have home page and e-mail-address as new ways to keep in touch and meet their voters.

Last October one of our debates went live in the net. We discussed a motion of our Committee for the Future. The text was – of course – available in the net, with comments of 15 members on video. In addition to live video transmission, internet provides a possibility to view the interventions of our members after-wards, whenever it suits the interested citizen. And he may feed back his comments and opinions. The words and acts of our members of parliament are ever more prominent in the public eye.

In the future we may go further. We may use the new technologies to create a still closer relationship between the citizens and and their representatives. We already have the tools. We only need the content, services and software to achieve a stronger democracy promoting participation of the citizen in the public life.

How will the Internet change the ways we understand and conduct politics?

That we don't know, but what we do know is that from now on there are no politics without internet! Some experiments on teledemocracy and electronic voting have already taken place in Minnesota, United States and Switzerland for example. We can learn from the experiences of each other.

This congress is an opportunity to do it – and also to bring forward new ideas, questions and hopefully som answers too.

The new millennium is about to start. It's time to look in the future and take initiatives. One way to go is described in a recent report on the strategy for Information Society by the Finnish National Fund for Research and Technology.

I wish you all welcome to our evening reception and have now the pleasure to open our special internet site.

It will serve you during the congress. It was created in cooperation by our Committee for the Future and Net Parliament a private net service with a focus on politics.

Have a very interesting and pleasant evening.

Bertel Haarder (EU; Denmark)
Vice-President of the European Parliament

Information Technology as a Liberating Factor

Why is it that IT 50 years ago was the most important tool in the hands of dictators – while today it seems to be the most important tool for oppressed groups and peoples?

George Orwell was obsessed with the devastating concequences of IT for western democracy. In 1948 he imagined a future world in the year 1984 with absolute dictatorship and total control of all individuals, including mental control.

He saw this partly as a result of technological innovation. He had seen Adolf Hitler and Josef Goebbels use IT to dominate the mental climate and pave the way for horrible policies of war and genocide. He had seen the communists use exactly the same methods resulting in even more systematic terror and killing of own citizens. The cold war was building up with growing communist infiltration and communist takeovers in several formerly democratic countries. To counter this, the Western powers built up an anti-communist intelligence-service establishing friendly relations with several fascist or semifascist dictatorships which were tolerated as long as they were anti-communist.

George Orwell drew the conclusion that the future inevitably was going to be dominated by totalitarian dictatorships. Simply because totalitarian governments had certain advantages compared to democratic governments. Even democratic countries would have to make certain abuses. – He drew the concequence of this in his own life by offering lists of suspected intellectuals to the British intelligence service.

In a way George Orwell was right: He predicted half a century of totalitarian regimes – ”the terrible century of mass murder” as the Pope called it in his New Years message. The truth about what was going on behind the iron curtain was even worse than he was able to imagine.

But he was wrong when it comes to technology. His imagination was not able to grasp the full consequences of the development of IT. He thought that governments would be able to maintain control of it. He underestimated the liberating power of market-born IT.

When president Kennedy ordered a man on the moon, he spurred innovation in the private sector. 20 years later Ronald Reagan’s SDI project had the same effect. The projects themselves were more or less failures. But the spinnoff-effects were fantastic. And while most governments were poor (or burdened by welfare states) the consumers and companies were rich, so, the enormous investments were primarily spent to develop products for ordinary people and companies.

That is why these technologies were made to serve ordinary people instead of controlling them. They could very well – they still could – be used to control people, if our governments had the money, the intention and the right to do so. But it so happened that the IT breakthroughs were triggered in market-driven democratic economies with companies making lots of money serving consumers instead of tyrants.

That is why this century finally in the end worked itself out of the darkness of totalitarianism. That is why George Orwell were proved wrong. He had seen the first part of the century belong to govern ments. He couldn't imagine that the last part of the century would belong to the markets, to the consumers, to the citizens. In the end consumers and not armies destroyed the evil empire and created a future for democracy against so many odds.

This development also confirms a lesson of History: that free citizens and democratic societies can only exist in market economies.

However, the market is no God and should not be regarded as a guarantee that there will be no problems in the future.

For me as a former Minister for Education & Research through 10 years, there is an obvious example of how markets do not provide everything. Computers are everywhere in our societies but only to a modest degree in our schools. Far too many teachers are still not familiar with them. And those children who need them most do not have computers at their disposal. The same is the case for many groups of handicapped. That is a disgrace. A social disgrace. A democratic disgrace.

According to professor Joan Sidney Howland, University og Minnesota (article in "The Electronic Library") recent projections show that "a child who has a computer at home is 7 times more likely to go to college than a child who does not have this same advantage."

As computers become cheaper and cheaper there is absolutely no excuse for not having plenty of them in schools and institutions. With access to the internet, off course.

If we want to break the social stratification – if we want to limit the division between the "haves" and the "have nots", we should exploit all possibilities in this modern cheap technologi. The market is not going to do it by itself because this problem concerns parts of society where markets are suspended.

I hope that the new EU frame work program will focus on this with a budget of one billion euro pr. year for Information Society Technologies, IST, of which 17% is allocated to Systems and Services for Citizens.

Social exclusion is not only a social problem but also a democratic problem. The IT development can make it worse if it only leads to increased opportunities for the "haves". But it could alternatively lead to more equality if the "have nots" are given opportunity and motivation to use it. I know some old people who suddenly have realized how they can have fun and enrich their lives and find contacts by means of their new computer connected to the Internet. – Imagine a boy or a girl from weak families who suddenly find themselves on equal terms with everybody else in the computerworld.

Since I'm an experienced politician, I feel I must also address the question of IT in politics, i.e. IT as a democratic tool in the decision making process.

I must admit I have seen the Ross Perot-experience in the USA as a rather disgusting prospect for the future.

The good question to us politicians and others is the following: Is it possible by means of IT to give the democratic decision making process a new dimension involving a larger part of the population? And if it is possible, do we want such a development with all its risks of populism?

My answer is "no, but". I'm against giving up representative democracy. We should demand of politicians that they follow their conscience and do what they think right for the country no matter what the majority thinks. The majority is not infallible. The majority tyrant makes just as many mistakes and abuses as a single tyrant. So, I'm against using electronic voting to transfer power in general from elected politicians to computerized citizens.

But: I see no reason why elected politicians could not ask citizens for advice. They often need more information about what people actually want.

In local matters I see no reason why many decisions could not be taken by those citizens directly involved. Matters concerning housing, shops, streets, parks, local schools and kindergartens etc. could and should be decided by those involved.

In many of our countries parents representatives already have a say in schools and kindergartens even if they are financed by taxpayers. Why not extend this influence to all parents? And why not let citizens choose between diffenrent solutions in other matters of strictly local concern?

In national matters there will always be a problem of information. Ordinary citizens will not be sufficiently informed about all consequences, or they don't want to be informed. The decisive information will be given through the mass media who will in reality decide the outcome. Just like in the UK where the Rupert Murdoch-dominated press will decide whether the UK should join the EMU or not (just as he decided that John Major should win the 1992-election against all odds.

In local matters circumstances will be different. The information will automatically be easier to get and to assess. You can look with your own eyes and draw your own conclusion. The concequences will be felt directly by those who made the decision.

So, my answer to my own question is "No but": "No" to direct electronic democracy in national matters except for very special occasions with easy access to information and a strong need for democratic legitimation from the people at large. But "yes" in local politics concerning matters that can easily be grasped by everyone – especially if the costs and other concequences can be directly felt by local citizens.

But let us not forget that the electronic boost to democracy does not come from electronic voting in national or local matters. It comes from the very fact that suppression of truth has become almost impossible in the long run. The light of truth reaches all corners. Even in China, in North Korea and in Burma. In Burma the opposition used a link in Finland to communicate internally – outside the reach of the brutal dictators of the Slorc-regime.

This is the liberating force of IT: It casts the light of truth in all corners of the world. It makes true what Abraham Lincoln said 150 years ago: You can fool some people some of the time, but not all people all the time.

IT should be used deliberately by the free world to make the truth available to citizens in oppressed populations. Not in the form of Western propaganda, but simply by giving local opposition groups the opportunity to address their own people.

Aatto Prihti, President of The Finnish National Fund for Research and Development (Sitra)

Opening Speech: An Information Society for Ordinary People

The Finnish National Fund for Research and Development, Sitra, has a vision: to be a creative and flexible pathfinder, and organization contributing to a better future for the ordinary person in Finland. We are a fund controlled by the Finnish Parliament, and the market value of our endowment capital amounts to about 500 million euros.

1. The aim of the Sitra research and training operations is to identify the pressures of change faced by society and to create a knowledge basis and operative models for the development of national success strategies
2. Through our innovative operations, we aim to promote the adoption of new operative models which will further economic and societal development as well as assist in the creation of new forms of business
3. The objective of Sitra's corporate finance is to promote the creation and start-up of new business as well as to support the success of companies and entrepreneurs through services which provide added value.

Sitra's most recent and significant research projects include a major globalisation study project which is now drawing to an end, an information society project, several studies on network economy operations as well as a study on the operation of the Finnish innovation system. As concerns innovative operations we have an extensive project underway called "Barrier-Free World". Focusing on Finnish expertise in services provided for the elderly and the disabled, the project is looking for ways to develop and turn this expertise into products with international business potential. In corporate finance, Sitra has been active in developing the Finnish venture capital market, focusing more and more on seed finance in this area.

Some twelve months ago, the Finnish Parliamant's Committee for the Future turned to Sitra, requesting our co-operation in the arrangement for the Politics & Internet Congress. At that time, Sitra had already launched a major project for the revision of the Finnish information society strategy, and therefore the Politics & Internet Congress seemed to be quite compatible with Sitra's ideas.

It is an essential premise of the information society that knowledge becomes the major production factor in society. Knowledge overcomes capital and capital becomes subordinate to knowledge. The interaction, transmission and utilization of information among individuals, companies and other corporations, as well as the providing of, and access to, services is in turn backed by information and communications technologies.

In developing Finnish society, the needs of the people constitute the consciously chosen basis and starting point. It is a national vision that Finnsih society should develop and apply the potential of the information society to promote the quality of life, competence, international competitiveness and interaction in an exemplary, versatile and sustainable manner. People will have new opportunities for

self-development, interaction and political influence. Companies will have new capabilities in speed, flexibility and networking. The public sector will develop the operative frame for the information society and promote the building of a serviceable technology and infrastructure.

The strategic outlines emphasize joint responsibility and innovative capacity throughout the society. Finland wants to be at the vanguard in the implementation of a sustainable information society with a human face. Among other things, this means that the electronic services as well as the cultural and informative content of knowledge at the individual, corporate and society levels must play a central role. Therefore, a network school should be created to complement the traditional school system.

The operative model of the network economy is going to renew working life and business life not only in the new industries but also in the old fields of the economy. By making full use of the information networks in international marketing, local forms of business, such as handicrafts, culture, services and agriculture, can find entirely new business opportunities. This will also promote regional balance and benefit the management of employment.

The information society will continue to develop, regardless of the measures taken by a small country such as Finland. That development will take the form of a global avalanche with no respect for national borders. The development will offer great potential, but we must not forget that evil also has a global dimension. Drugs, crime, money laundering and corruption are global phenomena, which cannot be fought by national measures, but require extensive international co-operation. It is therefore a major task for the information society strategy to ensure the materialization of the great positive potential and to prevent the proliferation of the negative side effects.

In the future, competition between individual nations will take place in terms of knowledge and competence. Competence is not something static, which will always be there once it has been achieved. It requires continuous learning, learning at the individual level, the company level, the national level, as well as at the European level. In turn, learning requires an entirely new kind of co-operation among all the parties involved – not only nationally but also internationally.

As a result of the improved direct influence of ordinary people, and of the multiplied interactions, politics will undergo interesting changes in the information society. I sincerely hope that this congress will provide us all with a new opportunity to elaborate on this interesting future, to realize new things, to enjoy each others' company, to communicate and to take European knowledge and competence one step further.

It is a great pleasure to see all of you here today. On behalf of Sitra I wish you all most welcome.

Christa Maar (Germany)
President of the Academy of the Third Millennium

In Future the Internet May Have a Revolutionary Impact on Political Life

Ladies and Gentlemen,

It is a great honour for me to speak at this Second International Conference on Politics and Internet. As it certainly depends very much on the personal preoccupation and professional work how we look at the issue at hand I should like to present to you my very personal perspective on the subject by emphasising three factors which I consider as rather exiting recent developments:

1) A few years ago most of the initiatives for promoting the understanding and application of modern telecommunication technologies originated in the private sector. It is only recently that the public sector in Middle European countries discovered the opportunities of the net, and that government agencies, parties and members of parliament became active partners in the development.

2) Another development which we observe is that the theme has left the realm of academic discussion and is winning ground in everyday political life.

3) What has been branded some years ago ”the last utopia of European political thinking” is already proving to be the very innovative way of guiding Europe into the next century. This conference is a promising example for this new tendency.

Let us now look a little more closely at what is actually happening:

1) As I said, some years ago most of the initiatives for promoting the application of the new technologies came from the private sector whereas now it is often public organisations and governments promoting it.

Why do I want to stress this point? Let me begin with a short description of the present state of affairs.

Two years ago when we hosted the First International Conference on ”Internet and Politics” in Munich, there were only two computers in the German chancellor’s office which were connected to the Internet. Two computers for a staff of 80 people, one in the library, one in the office of the chancellor’s ghost writer. Officials then would have called the two Internet computers a ”normal equipment”. Two years later these same officials would describe the fact that there are still not enough Internet computers in the chancellor’s office as a ”deplorable state of affairs”. And that I would state is at least some sign of a change. Last month the data of an extended international study on what we might call indicators for the preparedness to actively and competently make use of the new communication technologies were published by the Boston World-Times Publishing House.

These data are not really surprising but still very interesting, because they give ample evidence for what those of us who are actively breaking the path for the information or, as I would call it, knowledge society, have gathered all the way: the most competent users of the new media are the United States of

America, Sweden, Finland, Singapur and Norway. Germany holds place 16, while Great Britain is number 14, and France and Austria rank even behind Germany, not to speak of southern European countries like Italy, Spain and Greece.

The study also concludes that by 2002 the Tiger states will be recovered economically and will then have outperformed the Middle European countries in handling the information and communication technologies of the future. As we can see from these figures there are vast differences between the European countries concerning the acceptance of the new technologies. Not to speak of the even more dramatic differences between the Western industrialised countries and the developing world.

In this situation it is very important for us to know who the agents of change are or should be. With other words, who should take responsability, and why? To make it clear what is meant by this I would like to say a few words about the country I know best, and that is of course Germany. Like most of the other Middle-European countries Germany carries heavy loads of cultural heritage combined with a broad disdain of technological change. Also, the country has quite some difficulties to change the common burocratic rules and to adapt to new political practices. Since there is just nobody elso to lean on, when it comes to breaking up old customs and structures, it is mostly private initiatives in Germany pointing out new ways towards modern lifestyle.

Thus, when the Burda Academy of the Third Millennium started with its activities in 1994 it was filling a gap. Our aim was to introduce into the relatively rigid institutional landscape an interdisciplinary forum for discussion. A network of experts from all socially relevant areas, from politics, industry, science, art, and the media. Thanks to a relatively small number of very involved members and a whole-heartedly dedicated publisher, Dr. Hubert Burda, we were able to generate in a short time much interest in our main topic, which is the impact of information and communication technologies on society.

The bottom line of the First International Conference on ”Internet & Politics” in 1997 in Munich was that the topic itself became a public issue. One of the outstanding results was a very explicit statement about the need for the political class to design a legal framework for the emerging knowledge society which was put into words by a group of well known scientists from different fields. Another more practical outcome of the conference was a cooperation between the Burda publishing house and the government of the Federal Republic to designing a network for young people.

”Youngnet.de” – how the Internet address of this network is called – is a device which is especially designed for the use of young people between 15 and 25 looking for useful information on the topics they are mostly concerned with, i. e. work, jobopportunities, information on education and educational networks, opportunities for social engagement, etc. etc. Youngnet is one of the examples reflecting the increasing interest of the German government to using the new technological tools. It also reflects a rather revolutionary development in the burocracy to cooperate with private institutions using their know how for better results.

I want to express my hope that future German governments will tend more to the Finnish path using modern means of telecommunication to interact on the very political levels.

Why do I say this? When the Munich Academy of the Third Millennium hosted the First International Conference on ”Internet and Politics” in 1997, one of the most amazing events was the presence of a larger group of members of the Finnish parliament.

Today I am invited to speak at the Second International Conference on ”Internet and Politics” in Finland, and looking to the conference program I no longer wonder why the Finnish parliament had such a great interest in the topic of our conference. Obviously, Finland is miles ahead of most European countries, at least as far as the usage of the new media for administrative and civic purposes are concerned.

2) Which brings me to my second point.

The way this conference has been organised is an ample proof of the fact that the theme has left the realm of academic discussion and is – at least in some outstanding examples like Finland – winning ground in everyday political life.

The topics of this conference are proof enough that in this country people have come to deal in a very pragmatic way with topics that other countries still discuss on a mere academic level: ”Empowering the citizen”, ”Party politics via Internet”, ”Internet & Parliament”, ”Politics and the information society in social welfare and healthcare”, ”Telematics based educational services”, etc. just to mention a few topics out of the catalogue of practical political applications mentioned in the conference program.

There are certainly other countries and initiatives who deserve mentioning in this context. We had some of them on our ”Internet & Politics” conference in Munich. The Canadian government network for instance is an example which shows: governments which handle public information as a common good act as agents of change.

It is this what the political discourse should be about: How are we going to handle the growing mass of information in such ways that we can generate knowledge out of it, knowledge in the very sense of its meaning, which helps us to make more reasonable decisions and to create a better society and a better life for all citizens.

I should like to call this ”the common good of relevant information”.

3) Let us now very briefly consider what in the context of ”Internet & Politics” has been called „the last utopia of European political thinking”.

In which respect does it make sense to talk about a political utopia? By utopia we mean something we envision, something which is not yet in place. In general we would think that if it would gradually become common place we should be pleased because it would be of help as it would contribute to solving biological, social, economic or else political problems. Now, what is the vision behind the new utopia, and in which sense could it ever be helpful for political problem solving? The vision is a society, where knowledge makes a difference.

In the global ”knowledge society” of the 21st century the economy will be knowledge-based, and people and nations will compete for knowledge as yet scarce resource. For such a society the net is very helpful. Why? Simply because it is the best and probably the most democratic way we know to account for the citizens need for information and knowledge.

But how do we go about creating this kind of knowledge society? Again, each and every person has their own place and responsibility in this process, and I can only speak about the things I am being concerned with myself, i. e. conferences, workshops, books, and networking.

My concern is very pragmatic. I want to know, what the knowledge society is, when you break it down to its practical preconditions and consequences. What are, for example, knowledge-based products? And what information-generated services? Where do I find the educational tools which we shall en counter in order to become a successful knowledge society? What are the ways and means for designing information and knowledge? Basically I want to discuss with other people what we can do to transform relevant information into a common good providing it to as many citizens as possible.

This is basically what we set off to do, when we published the ”Munich Declaration” in 1997. The 20 points of the Declaration gave a condensed summary of what we considered the minimal infrasturc-tural, legal and administrative standards for a modern economic, education and telecommunication policy. It is evident: Internet access and email communication must become a basic consumption good like telephone and television.

I do not mean to imply that the number of Internet computers installed is a sufficient condition for forming the society we are envisioning. More important is: We must intensify our endeavour to feed the net with relevant contents. Europe is not just a common market, but also a historical and cultural context. We should try to use this heritage much better than we do now. Canada may serve us as an experienced guide. When I attended a conference organized by the Canadian government in early 1996, I was deeply impressed by the soberness with which the speakers were discussing the issues of universal service and universal access. But I was even more impressed by the fact that the so calles "Communication Highway Advisory Council" which was appointed by the government, amongst its major issues had a definite focus on "Canadian Content and Culture". This is what I want to emphasise: We must become aware that we are guardians of important cultural treasures. And we should not forget to transport them into the new era of communication technologies.

In this vein I wish your conference all the success that it deserves. And I congratulate the Finnish parliament and the Finnish public to its initiative. In all modesty I want to observe here that I am proud to having contributed to this conference by giving it the first try. And if I may articulate a very personal wish at the end: May there be many conferences after this one, hopefully one in each and every European country, to the effect that not only the Northern European countries but Europe as a whole catches up with whatever country, that has reached excellence in the application of communication technologies.

Let us follow this path together and, if you will forgive me for mentioning this here and now:

Let me invite you all to our conference "Envisioning Knowledge – Knowledge Society and the New Media" which will take place in Munich on 3. and 4. February this year. It is again the impact of the new media on society which is the topic of the conference. This time the speeches of the interdisciplinary experts will concentrate on the paradigm shift from the text-oriented to the image-oriented mediation of knowledge which we observe as a side effect of the rapidly increasing computational power of normal PC's. This paradigm shift will effect all fields of society and will have an enormous impact on business, education and the way we acquire knowledge.

Again, I wish the conference a great succes and hope that the discussion between the experts will initiate further discussions in the Finnish public like this was the case with the first conference on "Internet & Politics " in Munich.

Thank you very much for your attention.

Kalevi Olin, MP (Finland)

Debate Needed: What Kind of Democracy Internet Can Serve for?

Ladies and Gentlemen

On behalf of the organizing committee I have a great pleasure to welcome all of you to Helsinki, Finland and this important international congress on electronic media and citizenship in information society.

It is known that Finland as a small nation has been highly active while dealing with the contribution of information society as a whole and particularly from the point of view to electronic media. This is a result achieved by high level university degree programs in the fields of sciences in concern as well as by the decisions of the government and parliament of the country. However, it is necessary to emphasize in this connection the achievements of the private enterprises in high-tech fields: planners, designers and strategists in private companies have had a world scale vision while setting and implementing there goals for the markets.

Furthermore, it is worthwhile to state here, that without the initiatives which resulted to organizing the first International Congress on Internet and Politics in Munich, Germany two years ago under the leadership of Madam Christa Maar – President of the Interdisciplinary Think Tank Academy of the Third Millennium founded in 1994 and funded by German Media Company Burda – so without the Munich congress and its contributions this Helsinki 1999 meet could not have been named as second international congress in the field of politics and internet. Therefore, please accept our most sincere thanks Madam Christa Maar.

Ladies and gentlemen

The congress focuses the discussion on electronic media and information society to the citizenship. During four days we shall make questions and seek for answers at least on the following issues: What do we know about information society? Which stage are we at the moment in the process of contributing information society for the best of its citizenship for example from the point of view to democracy? How far are we ready to go in this process? Who gives the mandate for the development and how fast shall we drive on information highways? What does interaction – and particularly social interaction – count for in the era of electronic media? And in which way will the new means of using the electronic media change the notions on democratic institutions of society and the identity of the citizens as new actors?

The structure of the congress has been built up in the following way: main sessions and events take place here in Helsinki capital – today in the Film and Media Centre and tomorrow and day after tomorrow in Dipoli Conference Centre in the Helsinki University of Technology. Then on Saturday regional smaller scale congresses in Jyväskylä, Oulu and Tampere will be carried out. In Jyväskylä the theme is defined as virtualisation of citizenship and entrepreneurship – is all politics still local politics. In Oulu the focus is on how the Oulu region has been created as one of leading pilot laboratories in this

country in the area of information society development. What comes to Tampere, the theme deals with local partnership for prosperity and welfare and how local information society is developed.

It is worthwhile to mention that along with the congress themes discussed during these days outstanding exhibitions have been built up as well to demonstrate latest advancements in area of fast developing electronic media serving citizenship of the information society.

There are several partners whose contribution has made the congress to come true I would like to thank once more in this connection. Without mentioning all of them I want to take two on the floor: first the Parliament of Finland and its Committee for the Future as an initiator of organizing this congress. And secondly and the most important partner namely the Finnish National Fund for Research and Development (Sitra) with its dynamic, goal orientated and productive leadership. Combing your knowhow with that of the main partners such as the Cap Gemini, the Finnish Broadcasting Company YLE, the Helsinki Telephone Corporation, the ICL and others we have been able to prepare to this congress.

Ladies and Gentlemen

On behalf of the organizing committee I welcome all of you to the congress. And I think now – here – today it is time to give the floor to our distinguished speakers from abroad and Finland.
– We are ready for a dialogue.

Professor Benjamin Barber (USA)

The Internet Can Promote Democracy, but It Takes Work

Abstract:

Technology and democracy in the era of McWorld

The relationship between the new telecommunication technologies and democracy is often portrayed as easy and ineluctably beneficial to liberty and equality. But the actual impact of the new technology on democratic society depends on both HOW we define democracy, and HOW we define the new technologies. Certain features of the new technology (speed for example), may benefit plebiscitary democracy but corrupt deliberative democracy. A picture based medium (if that is what the new technology ultimate becomes) may be more useful to propaganda than civic education.

Moreover, technology is as much a mirror of the society around it as a catalyst for change. If our post-modern society is commercialized, privatized and trivialized, such products of the new technology as the internet – despite its theoretical promise – is also likely to be commercialized, privatized and trivialized. What happens to the new technology will then depend as much on political will as on the inherent technical nature of the new technologies. Which moves the discussion away from technology and back to the politics!

* * *

According to the Finnish News Agency main point in professor Barber´s lecture was that the Internet can promote democracy, but it takes work. Thus far, entertainment and commercialism have dominated development of the Internet. Harnessing the Internet to the purposes of democracy will require conscious development, says U.S. professor Benjamin Barber, who has among other things advised President Bill Clinton on questions of technology.

Prof. Barber cautions against supposing that political diversity and democracy create themselves when technological opportunities are created and thousands of new information sources come into being.

"The power to control content is becoming concentrated in fewer and fewer corporations," Prof. Barber warns.

In his opinion, government should be involved in the creation of Internet services by means of which people can discuss, exchange, and develop opinions. In both the United States and Europe, experiments are already under way, although they represent only a minuscule portion of Internet offerings, which are dominated by entertainment, advertising, and pornography.

"Unless people also have to get into the issues and justify their viewpoints, the Internet will be nothing more than a means for expressing the existing opinions and prejudices," Prof. Barber states.

Nor will policy shift to the Internet simply because each politician has a personal web page with his or her picture and speeches on it. Prof. Barber essentially considers these web pages propaganda which does not promote interchange and discussion among citizens.

He also challenges the idea that greater access to information is in itself some sort of wonder drug. Access to all the information in the world won't help, he says, if people are not able to understand and apply that information.

"My students have trouble absorbing even five or six new books a term. The problem is not helped by the fact that they're being offered all the books in the world."

He notes that it is much easier to create technical possibilities than to instruct people in their use. Even in the schools, the Internet links were created first – and the pupils are only now being taught to interpret the information.

"The Internet is considered a sort of scientific form of communication," he says, *"and many people believe that everything that gets said on the Internet is the truth. That's not the way it is – all sorts of lies and rumours get spread on the Internet, and people believe them too easily."*

Keith Todd, CEO at ICL (UK) and Alexandre Haeffner, Group Vice-President at Cap Gemini (France)

You Need Commercial Applications!

According to the Finnish News Agency important is to notice that Finland is behind in commercial applications. Finland's swift development and progressiveness in the Internet field draws praise, but even the Finns have a lot to learn. Keith Todd, CEO at ICL, warns the Finns against thinking they will always be on the cutting edge.

"In every country I visit, political leaders tell me that their country intends to be at the forefront of information society development," Mr. Todd says. *"There are plenty of countries where people learn fast."*

In his opinion, the crucial question from the standpoint of the advancement of the networked society is whether the Internet can be developed into a functional marketplace. As an example of service modes which are attracting new users, he mentions the Waltrose chain's swiftly growing shopping services. The English chain's service delivers food purchases ordered by workers to the work place, as a joint order.

He believes that with Euro e-commerce and other commercial applications will get a new start in Europa. *"And the sooner Britain joins the EMU, the better,"* Britain's Mr. Todd adds.

Alexandre Haeffner, group vice president at Cap Gemini, has also kind words for Finland's swift development of technology and the rapid increase in the number Finland's Internet connections, but wonders why the country lags in the development of e-commerce.

"You've got plenty of buyers, but apparently they're buying from U.S. web outlets, not Finnish ones," he puts it.

Mr. Haeffner has some advice to users, consumers, business, and governments: *"Learn how to use the Internet now. In time it may be that many services and products are only available on the Internet."* He urges businesses to learn the capabilities of the Internet better than their competitors do. He counsels governments to be sure that free competition prevails in the telecommunications field. Easy, inexpensive access to data networks will be vitally important to the networked economy and its development, he notes.

According to the Finnish News Agency one of the main points in this opening lecture was also that Information firms' directors oppose export restrictions on encryption technology.

Export restrictions on powerful encryption technologies are threatening to slow the development of commerce on the Internet. Such is the warning being given by directors of two data technology firms, ICl and Gap Gemini.

Keith Todd and Alexandre Haeffner, both condemn the international agreement made under the Wassenaar system. This agreement makes the exportation of powerful encryption technology subject to licensing. Finland at first resisted the restriction, and would have preferred to keep the trade unregulated, but accepted the agreement under pressure from the United States and France, among others. There are firms in Finland that develop and manufacture software which uses powerful encryption technology. These programs utilize keys with as many as 128 bits. As far as is known, the programs cannot be broken into at all with current technology. Programs which use 56 or fewer bits remain unrestricted. These programs can be broken into in a matter of a few days, with tools which are in general use. *"This agreement represents Cold War thinking,"* Mr. Todd says. He felt that pressure from the U.S. business community would change the country's policy very quickly.

Mr. Haeffner notes that the fight against terrorism does not warrant export restrictions. Those enforcing the law simply have to find new ways of operating and adapt to the new technology, he says.

"You might as well outlaw cars because they can be used in bank robberies," he sniffs.

There was also the special message for the Committee of the Future. Keith Todd urges Parliament's Committee for the Future to delete from its report a statement which demands that Finland be developed into an information society laboratory. People rarely want to live in laboratories, he notes.

Alexandre Haeffner:

The Web and associated technology is changing many aspects on how we learn, work and trade. The Web will deeply influence the way commerce is performed and more generally how businesses are organised. E-commerce is estimated at $3.2 trillion sales by 2003 according to Forrester research, Inc. The total represents 5 percent of global sales. In USA, 48 million Web shoppers have purchased goods like books, computer hardware and software, CD/cassettes/videos, travel and clothing. In Europe, according to market research, on-line revenues in business trade, consumer retail and content are expected to exceed 70 million Euro by 2001.

In fact, the transformation of commerce is embedded into a more global "network revolution" i.e. an economic and social transition comparable to the Industrial Revolution. This network revolution reflects the migration of a significant portion of economic and social activity from the physical world to digital networks.

1) What are the building blocks of electronic commerce?

Electronic commerce is a generic term that refers to the sum of all commercial transactions executed over electronic media for the exchange of products, services or information between suppliers and consumers.

In order to achieve electronic commerce for a large number of people, a pretty complex value chain has to be established or improved.

Connectivity through Internet access providers, multimedia PC hardware and software, high-speed modems all based on open standards. Skills as for any new technology, especially for fast moving ones, through training in understanding and using PC's or equivalent devices have to be developed on a large scale. Smart applications and security of transactions will build the necessary thrust and require co-ordinated efforts from governments supplying rules and legislation, more creativity from software developers in order to ease application usage and finally bandwidth for better response times compatible with real-time on-line shopping. Information through advertising and delivery tracking.

2) Winners will have transformed and integrated their value chain

Industries and markets are changing. Businesses in the network economy face reduced transaction costs, an increased reliance on content, blurring industry and market boundaries, a shift in power from producer to consumer, accelerated competition and new business models.

Given these possibilities, players are connecting all functions, both within and outside firms in order to fully capture the advantages of network commerce.

For instance, moving beyond the ”E-shop” promoting a company, its goods and services, we see the development of ”E-procurement” with electronic tendering and procurement implemented in large companies or public authorities. E-auctions offer an electronic implementation of the bidding allowing multimedia presentation of the goods. E-malls hosting individual businesses through Portals. In addition, users may be members of virtual communities playing an important role in marketing operations building customer loyalty and feedback. Value-chain service providers for production/ stock management like web-based package shipping support.

3) A New layer of opportunities is still to come

Technology is enabling new threats/opportunities by shifting most of our content to digital support. After text and images, multimedia is today incorporating music and will incorporate video (high resolution and high quality). This will impose requirements for a partial redesign of the current networks and the introduction of new ways to protect copyrights and create new business value chains for the distribution of digital content.

In addition to the today’s PC, we will be able to connect many additional devices we now use separately from the Internet Network. In the near future, TV sets, camcorders and GSM handsets will be connectable and new applications or business opportunities will have to be implemented.

Recommendations

For users and consumers: Learn to use the Net now. Eventually, many products and services may not be available anywhere but the Net. For businesses: Become leaders in establishing a network presence, focusing on learning more than your actual or potential competitors. For content firms: Promote and link network products with traditional content products. Reengineer content development processes. For governments : Ensure competition in the telecommunications service industry. The availability of inexpensive, easy and ubiquitous access to the network is essential to the network economy. In addition provide the rules and legislation that allow users to build thrust and confidence in electronic commerce.

Martti Tiuri, MP (Finland)

Facts and Visions of the Knowledge Society in Finland

The world is presently changing from an industrial society to a knowledge society. Science and technology are the carrying forces in determining the future. The knowledge society will have its effects in all areas of the society. It is important to understand this development and be ready for the new opportunities it will offer. Especially important it is to politicians and other decision makers.

In Finland we have been very purposeful in preparing for the knowledge society. It was realized already many years ago that knowledge is the basis of the future industry and services. The state of Finland started to invest more in education and gave universities extra money for research. In the same time private companies increased their research and development work. This continued also during recession years. In last years the state has privatised some of its companies and part of the money has been used to promote basic and applied research. Ten years ago about two per cent from gross domestic product of Finland was used for research and development. This year the share will reach three per cent and is expected to grow further. The results have been excellent. The share of high tech products in the export of Finland has grown from a few percent to near 20 per cent.

The society in Finland and the finns have been eager to accept new technology. Nearly 60 per cent of finns have mobile telephones. The number of mobile connectios has now passed the number of wired phone lines. Finland also leads in the Internet connections. The number of computers connected to Internet per 100 inhabitants is 10 as for example in USA it is estimated to be seven and in Germany less than two.

Next I want to explore what has been made in Finland in the political field concerning the knowledge society. The present government stated in its program four years ago that it will promote the utilization of information high ways and networks. It promised that the basic skills of the knowledge society will be given to all finns and that the whole education system should be able to use the information network. A special program called Finland towards a knowledge society was developed and has been realised.

The Parliament of Finland has assumed an active role in the discourse on the future of nation. Parliament has obliged the Government regularly to submit a report on the future of the country over a time span of 5-15 years. The Parliament has established a special committee for the future which consists of 17 members of the Parliament.

The main task of the committee for the future is to evaluate and reply to the Government's report. Parliament deliberates the Committee's report in plenary session and adopts it with possible amendments, where upon it becomes a resolution of Parliament binding the Government.

The other important task of the Committee is to organize and coordinate the Technology Assessment of the Parliamnet. TA considers the effects of science and new technology on society. TA is very important because nowadays the parliaments have often to make decisions where scientific and technological aspects are important. Therefore members of the parliament need information in the form suitable for them.

Two TA reports have been made so far. The first concerns plant gene technology in food production and the second information and communication technologies in teaching and learning. Executive summaries of these reports can be found on the Internet.

The latest report of the Committee for the future was accepted by the Parliament last November. The report is available in English and on the Internet. In the report the Committee evaluates information society and the positive and negative effects of Internet. The Committee proposes that Finland should act in EU as an information society laboratory, where people are using the modern technology at the forefront of development and where they play a crucial role in the development of new social innovations.

The new knowledge society will be a society where people and communities network and share their knowledge openly and effectively. This conference is a process where the fore runners meet to invent our desired future.

Arne Wessberg, Director-General (Finland)
Finnish Broadcasting Company (YLE)

Equality, Identity and Community in the Information Society: Public Service Broadcasting in Our Digital Times

Radio and television have always existed as mass media wedged between technology and culture. Throughout their existence, they have utilised the very latest applications of technology: first radio technology, then electronics and now information technology. Equally, they rely on time-honoured forms of expression: performing arts, acting, live expression, storytelling and debate. Even on the threshold of the information society, radio and television combine technology-based change with the long history of cultural tradition. It is precisely this encounter between the very newest and very oldest that also makes the audio-visual mass media so interesting as we enter the information society. The new information technology is having a profound effect on the world of broadcasting. Digitalisation is perhaps the greatest transformation which radio and television have ever encountered as media. Changes will not only be technological in nature. The range of choices available to the individual listener and viewer is growing, a number of information sources are becoming available to the media consumer, and viewers are being offered new kinds of multimedia products in which interactivity plays a key role.

Digital broadcasting communication for all?

By definition, the mass media constitute communication to large groups. In European societies, the basic services of radio and television are available to everyone, and, in practice, all members of society fall within the sphere of influence of the media. The broadcasting media are the principal media of our age, and it certainly is difficult to imagine the societies of the next millennium without them. Does the digitalisation of the broadcasting media thus also apply to everyone in the future? This is one of the key questions posed by the emerging information society. So far, only the terrestrial broadcasting media have been accessible to all households. It is true that there are a number of Western countries where cable television reaches virtually all or most households. Yet even in affluent Western Europe an average of 60% of households are still within the sphere solely of terrestrial broadcasting distribution, and 67% in Europe as a whole. Moreover, not even in the wealthy countries is there any sign of a broadband distribution path which would reach each household apart from the terrestrial broadcasting media. The spread of digital broadcasting to households will play a key role in building up the information society to all. The issue is thus as to whether society as a whole is to be brought within the sphere of the new information society or just a part of it.

Continuity and community

In our enthusiasm for the new opportunities afforded by technology, we often overestimate the significance and rate of change in the mass media. As was noted at the beginning, mass media behaviour is anchored to a considerable extent in the everyday, in routine habits and customs. These

are factors which oppose change and are more the allies of constancy and permanence. Many researchers regard television as an arena in which people process their cultural values. By this they mean that whereas traditionally the ”user interfaces” to values and valuations were various socio-cultural structures (place of residence, social class, religion, professions), television is now fulfilling this task. Radio and television have become for audiences an arena for value- and culture-specific identity work.

Radio and television programmes provide our lives with elements of familiarity, belonging , continuity and communality. They provide audiences – year in, year out – with identifiable points to fasten on to, personal memories, common experiences of delight and victory, or of anguish and sorrow. In its recently published report, the Future Committee of the Finnish Parliament has stressed the significance of experiencing something as one’s own as one of the most important value bases of the information society. Unless people find intellectual, community, and environmental values which they experience as their own and close to them in the networking and diversifying media, the change is most likely to lead to confusion and chaos rather than to the morally strong community. The central position of the broadcasting media in the everyday life of Westerners is most probably based upon such a feeling of experiencing something as one’s own. In modern communities, people are increasingly living and experiencing solidarity and experiences familiar to them via the mass media.

Public service broadcasting and the values of the information society

The pluralistic media form one of the fundamental elements of the system of values of Western society. The basic values of freedom of speech and expression have required that individuals are able to obtain and acquire knowledge and information, independent of those in power. European public service broadcasting was originally created to serve these goals. Its ideal has been to provide members of society and citizens with media that are independent both of state and economic power. Public service broadcasting (PSB) has thus always emphasised the significance of public control: public service broadcasting is accountable to the audience in a way in which, for example, the commercial media are not even when they are popular.

The principle of accountability requires that the audience is able to demand for itself the provision of information that is important and significant to it. On the other hand, PSB has been based upon the concept of an active, developing and self-realising person. In European traditions, PSB has been set the well-known obligation of producing programming with an informative, educative and also entertaining content – in a way that is balanced and nurtures a complete picture of man.

Identity and self

In the face of the prospects opened up by the new technology, it has been asked whether this ideal is sustainable any longer now that the audience can use advanced communication technology to reach those media contents which they deem best meet their various communication needs? Communicating via network media and the Internet, the audience now has unrestricted access to those sources of information that were previously beyond their reach, inter alia, behind a variety of media gatekeepers. Doesn’t communication built upwards do away with the need for public service broadcasting which, despite everything, is always an entity constructed by programming planners and editors? It is true that in the network society the individual has an unprecedented opportunity to get hold of virtually any source of information whatsoever – though this opportunity is not available equally to everyone. However, the world-wide communication network and information gateway are necessarily creating, by their very existence, the need for a uniting counterbalance of their own. At the same time as the sources of information are growing and the number of connections is multiplying, the need for meanings that unite and for those that perform the uniting is also growing. In fact, one of the network world’s most important challenges is for it to be able to create this analytical interpretation and

understanding. My understanding is that in the network world of the information society, it is precisely public service broadcasting which should emphasise the prestige of interpretation and analysis in its own mission. Only a communicator who is certain about his or her own self can engage in well-matched communication with others. The elements of public service broadcasting that are emphasised in the information society are, in addition to pluralism and independence, communication which strengthens identity and citizenship of the information society.

Citizenship

Citizenship in the information society is also a tough challenge. Boundaries are being broken down, the roles of states are changing, many things are going global, contexts are becoming more complex and decision-making in matters affecting citizens is becoming more distant and in many cases is losing its recognisable face. Political citizenship means that people are capable of understanding the contexts of matters affecting them and their own relationship to these. In an integrating and globalising world, where decision-making is often faceless, this is a particular challenge to the media.

Citizenship in the information society requires individuals to be able to obtain relevant information on matters affecting them personally, and to feel that they can have an influence on them. On the eve of the information society, there is good cause to assess once again what is meant by basic communication services. Is, for example, equal access to network communication one of the basic rights of the citizen of the information society? If it is, how then is it to be implemented? Can it only be achieved by means, for example, of relatively expensive hardware investments, or can equal connection and basic services be implemented by means available to the overwhelming majority of the public? All these questions are significant as far as public service broadcasting is concerned.

Another important aspect of the relevance of information are the ethics of communication. On the one hand, this means that the protection of the individual of citizens as communicators is respected regardless of the fact that digital broadcasting technology allows for new ways of registering and monitoring use of communication. Individuals can act as equal players in the public political arena only if they can be certain of respect for their integrity. Only this way can the political system earn the trust of citizens. The ethics of communication should be required to ensure that, in a multiple-source and increasingly complicated community, journalism must be based more firmly on reliable argumentation. In a multi-channel world, the prestige of the reliability image of each channel will increase – but will also always be subject to a more critical exposure. Furthermore, citizenship of the information society signifies that people can increasingly participate and do business electronically. Finland has sought in particular to promote the preconditions and opportunities for electronic public dealings and participation by citizens. It will soon be possible that fulfilment of civil obligations, dealings with welfare services, study, library visits, relations with the authorities etc. can be managed remotely. Forms of this kind of interactivity should also be promoted by public service broadcasting. In a democratic information society populated by active citizens, the upkeep of the experience of citizenship and of civil duties and rights is particularly important, and it should therefore be adopted even more resolutely as a core element of the future mission of public service broadcasting.

PSB and the networking approach

I estimate that the public service broadcasters companies will survive the challenges of the digital era only if they are able to create a networking method of collaboration with both the actual (new) media sector and the other content production sector. Many sectors of society can genuinely join forces with the content production of the digital broadcasting media, perhaps more than they themselves can even imagine. It is natural that, e.g., education, welfare or the science sector have so far not perceived themselves as being close to the audio-visual production sector. Today, however, they are already producing a variety of new-media audio-visual products, ambitious ones, too, which could well form

one part of the new content carried by broadcasting. The public service companies must now invite new organisations in society to cooperate in digital production. To a large extent, this is a question of motivation and example. Other operators within society are looking for encouragement for the new network production method, and, here, public service should in fact take on the role of pioneer. The image of reliability, independence and public accountability associated with it will provide PSB companies with good points of departure for such a course of action. This will also create new content for the PSB concept that will fit in with the future.

PSB: take the lead

For many members of the general public, transition to the so-called information society is still an abstract or, even worse, an unacceptable vision. Many are concerned about the undermining of human interaction and about the possible increasing alienation of large, less well-off segments of our societies. Others are concerned about the over-emphasis on the commercial and market aspects of the digital future. In expressing these concerns they do not necessarily want to deny the importance of market revenue in financing all this. However, for many, information society so far looks only like a collection of new opportunities for mostly huge global businesses. Public service broadcasters will undoubtedly understand the importance of market revenue for developing the new services. The value base of the information society – just as in no other society of whatever period – should not, however, be based on business values. Therefore, the public service broadcasters should take a lead in the debate relating to the information society.

By this debate I do not mean only abstract discussion of the objectives and structures of the information society, but also concrete demonstration of services which viewers and listeners can utilise every day through their digital tv-sets. In providing a well-balanced and structured range of old and new services to the audiences, PSB should present an understandable and approachable view of what the information society means in the everyday lives of our audiences. As is the case with the existing public service broadcasting, it will be difficult – and even undesirable, I should add – to try and define in detail which concrete operations and services these new products should consist of in future. The public service mission is not a list of quantifiable tasks. The statement agreed by the member states of the Council of Europe (Prague Resolution, 1994) defines public service broadcasting as an essential factor of pluralistic communication accessible to everyone and hence as a central factor of social cohesion in the information society. It is still a good guideline for producing the new digital and multimedia services, too. Consequently, new services based upon information technology proposed by the PBS should be developed overwhelmingly and demonstrably from the viewpoint of the households, citizens and individuals with a cultural identity. The challenge is to grasp the new, the inevitable changes based upon technology, without undermining the audiences' and societies' needs for cultural continuity and intellectual frameworks.

Risto Linturi, Researcher (Finland)

Towards Media Democracy, Mass Manipulation or Cyber Crime

Mr Chairman, ladies and gentlemen. I am glad to see so many of you here physically – next millenium things might be different. Internet and the forthcoming virtual reality will have many consequences.

Internet enables us to do many things in a new way. Simultaneously it threathens a multitude of old structures and concepts. Just think about the two most important concepts in politics: the state and democracy. A state is a power structure inside a geographically limited area. The power is financed by collecting taxes from events inside the state boarders. But more and more of our wealth and activity has transformed into bits and bits – they know of no boarders. Bits move freely in virtual reality and nobody knows where they go or come from.

Individual freedom is growing – I might work, I might spend or earn money – nobody knows. Local governments control less and less of the activities of their citizens and collect less and less taxes from what happens inside their boarders because bits are not local and they will easily find tax heavens. Naturally we solve part of this problem by joining forces with all other states and by enforcing taxes and legislation with international agreements. We might actually form a world state for virtual reality. But what then happens to democracy and individual freedom – what is individual freedom and democracy when world state creates rules and the so called free market handles all executive tasks in the non local virtual realm.

Democracy works best in small communities where people feel that there really are common problems to be addressed. I have wondered if there could be such a thing as a democratic virtual community with its own set of responsibilities and rights similar to physical communities inside every larger state. It would be an intriguing thought as more and more of our common problems and activities are common with people outside our physical city. Currently the citizens in virtual reality feel pretty much like they lived in someones back yard where all the rules and limitations were set by their landlords.

Currently internet resembles some strange mixture of free market and the feodal age system and if there really is some democracy – I have not noticed.

Perhaps we do not yet have many rights in internet but we certainly have possibilities. Internet does give us access and potential to affect things.

Let me now show you a demonstration. This will soon run on any PC. All of Helsinki is being modelled in 3D so that people can walk or fly there virtually. Modelling this demo took some manmonths. The two square kilometer model almost fits on one floppy. By the year 2010 I think all the world has been modelled this accurately and modelling techniques have been automated. Physical reality and virtual reality are being connected with GPS-positioning devices, cameras and geographic information databases. Soon minds can travel and meet with others in lightspeed. Within three years in Helsinki my kid can go virtually to her friends door and push the doorbell to connect a telephone call even though we did not have her telephone number or surname. If she wants to visit her aunt I can let her. But she has to find the correct bus and correct stop where to leave the bus first in virtual Helsinki. If necessary

I could even follow her route from my screen if she carried a GSM with a positioning device built in. If I would like to view the sermon in the church or parliamentary discussions or some karaoke I would just need to remember the correct buildings to click at them. Very few people remember more than one hundred telephone numbers but most of us remember from one hundred thousand to one million places.

Many logistic problems will also be solved much more efficiently than before. If you want a taxi you just open the virtual city and pick the closest free taxi with your mouse. The taxi gets your position and your order immediately and automatically.

But this is not politics – this is just citizens being able to control their own lives and their own environment. Similar examples arise everywhere – technology helps us in our everyday lives and politics should ease this development.

Let us now investigate whether we travel towards democratic interaction, addictive manipulation or cyberterror? The forthcoming networks may enable us to do both good and bad things. There is also wide disagreement between different cultures and different people on what is good and what is not. We will have to make choices or just plunder into the new era blindfolded.

The world is becoming a village. It will be possible that everyone is a public figure in Internet. In the western mass market society it was enough that people respected money and brand products. It was very important that everyone bought the same products simultaneously and it was very important that citizens were law abiding and well organized but as individuals they were not supposed to condemn others – this was a job for the state and privacy was highly valued.

Dynamically networked information society will work better if people can rely on each other and easily find others with similar value sets and if they can keep away from others who have not proven to be trustworthy. There are opposing forces trying to make even mentioning any names in Internet very difficult making privacy the most important value of all. Very soon we can read rumors about everybody – not just celebrities.

But our lives are meaningless if we only retrieve data. We have a need to take part and express something. It will become possible for most of the citizens in developed countries to set up their own network tv-stations. This will be as easy as it is now to set up a web-page. This is one feature we are building just now in Helsinki. Let me now show you the quality that anyone can have their own tv-stations. We do not believe in video on demand. We believe that every aquarium, every karaoke bar, every teacher, every priest can have a camera in front of them and they can broadcast to anyone or all others whenever or even all the time. I call this media democracy. This means that the late second millenium was the golden age of mass media marketing. It is the end for many media concepts anyway. Very soon we will have televisions that store all channels in solid state storage for 24 hours. You can watch anything whenever and the device skips commercials. They can be viewed from corporate websites if necessary.

Within ten years every new home computer can store all of the music ever recorded and as much video content that people ever want to watch. Capability to create, distribute and utilise will be affordable to everybody. Mass media will not anymore require huge investments unless existing strongholds manage to create such an atmosphere and according regulations that new possibilities cannot be utilised efficiently. If they were utilized – artists could get 100% of the money paid by consumers and consumers could have very much wider selection. But it is not the artist or the consumer who decides. There are many middlemen who want to save their skins and do not like the skenarios where they themselves are nonexistent.

Skinner created a brilliant theory about our behaviour. He talked about positive and negative reinforcement and how that conditioned us to behave in certain ways. Smile is the best conditioner and

most used when teaching small babies and loved ones. Soon computers can create artificial persons – they will see from the computer camera how you react. We have just nine basic feelings and nine basic facial expressions. Our eyes reveal where our interest lies. When this happens your artificial pet can start manipulating you by rewarding you with a smile – always when you react in an expected way. We might use these behavioural machines to shape us in suitable skills but these could as well be used to get us hooked into buying patterns that we did not originally wish or into political movements as well. There exists already a cuddly talking dinosaur for children marketed by Microsoft. This dinosaur does not yet sense how you react but it does get input from the television. Just imagine this cuddly dino saying to your kid – " oh, I am bored now, could you please watch some tv with me. Oh yes, that was a nice pullower, You should have one also, could we ask daddy or mummy."

Very soon these and other virtual nightmares start spreading around the networks in the form of viruses listening to out Internet telephone discussions, reading our emails and smiling to us while making suggestions about what we should buy or how we should use our time. Let us hope our electronic purses are safe from these viruses.

Our minds most certainly are not.

With advanced network interaction it should be noted that we are creating possibilities for criminals. If we create a network and a virtual reality where anyone can send other people blackmail letters, where anyone can threaten to spoil their personal or corporate reputation, where anyone can publish any copyrighted material or corporate secrets without any risk of getting caught – then it is bad. If we create a network where these same criminals are able to commit their crime and even collect their money without any risk of getting caught – then we have created a monster. Currently we are doing just so.

In the physical world we have faces, our cars have license plates, our money has numbers. Even the smartest criminal has a risk and this should also be the case in Internet – otherwise we cannot rely on our networks. But instead of talking about tracing mechanisms everybody is talking about encryption control. What happened in Wassenaar recently seems to have very little to do with democracy. Tracing would give power to the citizen against virtual abuse, encryption control only gives power to some governments to read poorly encrypted mail. This road easily leads to virtual abuse and totalitarian regime.

Tamagotchi must be familiar to all of you who have children. There will be many who get addicted with virtual reality. Tamagotchi was a very crude device compared to what is to come. By 2020 we will most probably see millions of people permanently connected to virtual reality in terminal care centres. This will be accepted by then. Just think about what is happening now. According to a study americans are using one third of their wake up lives watching tv. A psycologist measured what happens in their brains when watching a typical program. Nothing happens there. It is too ready. Children should be read books without pictures so that they would get imagination – so that their brains would function. Television does not mean relaxation. It means that one third of americans and little less of us europeans is always turned off. We turn ourselves off when we are not needed and this possibility might be relieving but it should not be mixed with relaxing when brain organizes itself anew. If many people opt in the future to spend rest of their lives connected to tubes in cyber coffins – they require little energy, they do no harm and they enjoy everyday the feeling of sun warming their bare feet. They spring like they were young again. We will accept this, and they will leave us virtually before their time.

But I resent this – our life is not a solitaire. We mean much to each other. This is why we should favour social cohesion, interaction with other people and why we should be afraid of mass entertainment which leaves so many of us depressed and feeling unnecessary because our reactions make no difference to the centrally distributed new soap opera extension of our family. I do not care if our lives become more technical – if every medical cell in our body has its own internet address. If our lives will extend for hundreds of years – if people must select between eternal life and children. Many would opt

children anyway. I do not care if networks and electronic money force us to get rid of boarders to form a world state to govern bits that know no borders and I do not care if western culture looses its competitiveness when remote work and educational material spread equally everywhere – when no-one knows where work happens and who works – bits travel without boarders and the poor will benefit. Milton Friedman said that development favours the poor. Emperors did not need running water – they had running slaves.

I do care strongly that we are here for each other and technology can be utilized for this purpose as our telephone network has well shown. Technology can also be utilized to help people group and regroup in democratic fashions. But technology can also be used for solitary purposes and for totalitarian purposes. I hope that we activate ourselves and take a stand on these issues – we are in a crossroads – we have to decide for the future. There is much in our legislation currently that favours mass media and mass manipulation and centralized control mechanisms. There is much that lessens individual importance and our self esteem. It is a sad future if we let it be and a glad future if we act responsibly. If we make correct selections that favour human interaction where technology is means and not an end in itself. And finally: I would not consider it bad if our new virtual reality would get and support local democratic rights for those of us who will spend most of their lives there.

Thank you for your patience.

Sirkka Pöyry (Finland)
Secretary General of FEANI

Knowledge Society as a New Working Environment for an International NGO

Conference as this often opens windows toward the future, offering fascinating visions. Knowledge society is already part of our everyday life, and its development is accelerating so fast that the following steps are sometimes difficult to be imagined. In Finland a remarkable majority of people are ready to accept without major hesitation the challenge of the new technical tools of the knowledge society, such as telecommunication and Internet and all the possibilities they facilitate. The information technology really opens totally new and interesting possibilities to improve communication and interactive operations in NGOs. It is a possibility to a new and more transparent culture. But how far is the development in the real life?

Background

I represent a European Federation of National Engineering Associations FEANI. It is initiated by French and German engineers to "facilitate prosperous and peaceful development of the European society". FEANI was founded 1951 in Luxembourg by seven European countries: Austria, Belgium, Germany, Italy, Luxembourg, the Netherlands and United Kingdom. It was located in Paris forty-six years 1951 – 1997.

About one year ago the association moved to Brussels to be close to the European decision-makers and to have a better possibility to influence in the development of the European future. Today FEANI has members from 27 countries, including all 15 EU countries and in addition most other European countries, thus representing more than 1,5 million engineers. FEANI has only one national member organisation in each country; if there are several representative engineering organisations in some countries, they form a National Committee of FEANI.

FEANI has defined its fundamental aims:
to affirm the professional identity of engineers in Europe:
by ensuring acknowledgement of professional qualifications in Europe and worldwide
by assuring the status, the role and the responsibility of engineers
by safeguarding and promoting their interests and by facilitating their free movement in Europe and worldwide, and to strive for a single voice for the engineering profession of Europe, whilst acknowledging its diversity:

1. in developing a working cooperation with other international organisations
2. in representing European engineers in international organisations and other decision-making bodies.

FEANI's strategic objectives are:

1. To be a leading organisation in engineering in Europe
2. To be a prime source of information for the engineering profession

3. To increase internal cohesion and understanding
4. To cooperate with other European organisations
5. To promote mobility of engineers
6. To increase appreciation and status of engineering profession
7. To promote public discussion on engineering and technology
8. To build up financial strength

FEANI is an engineering organisation. Thus it is a good reason to expect that it would be easier to develop an advanced technical infrastructure and communications systems than in most NGOs. However, there are certainly many common aspects that are the same or at least similar in a majority of international associations.

IT can improve services

One of the typical phenomena is the limited financial resource. Members are not eager to pay to a central organisation, but however, they expect fast and good services. The Information technology can be a good solution to improve the level of services, but it is not a magic tool. It also needs investments and labor.

Internet offers to the international organisations fascinating new possibilities. It is an excellent information resource opening access to a wide variety of different background material on a low cost and independent of time or distance, thus saving travelling and mailing costs.

But it is also very time-consuming and frustrating if you want to find something to an immediate use. Sometimes busy connections make the work very slow, sometimes the connection is refused on a critical moment, sometimes it is really difficult to find the right addresses, and it is easy to get lost and find yourself surfing through a variety of interesting sites without a goal. And in addition the information is very segmented and split, it is not easy to have any overview of any topic. The quality evaluation and assurance is the responsibility of the user! Efficient use and good results require knowledge and discipline.

Internet is also a good media to offer information on the activities of the organisation itself and at its best to offer an interactive channel to the members and to the common public.

Most NGOs already have their own home pages with basic information, such as aims and objectives, constitution and organisation, member services, contact information and links etc. A step forward is continuously updated information, such as electronic publications and news. Discussion groups, continuous feedback, forms to be filled, voting procedures, etc. are already more demanding and only in the beginning of their exploitation. (FEANI's home pages http://www.feani.com)

Barriers preventing adaptation of IT in an NGO

When adapting information technology, it is not only a triumph and a rapid break-through. There are several barriers in-built in the organisations themselves. They are mental, cultural, and technical or economical in the nature.

Often the decision-makers in an international organisation have already made a remarkable career in their own country, and are rather senior in age and experience. They are not participating in the active labor market, thus they are not always aware how fast the technical development in the working environment is today. So they cannot always recognise the needs for and possibilities of the information technology.

But the attitudes are not only dependent on the age gap; the cultural differences and traditions already in Europe are unbelievably wide. The statistics show that the level and eagerness of adapting information technology vary from south to north, from east to west, from country to country (see the report "Job opportunities in the information Society", European Commission's web site http://europa.eu.int/comm/dg5/). Thus technical level and compatibility between different member countries of an international organisation vary heavily.

These pictures also show that it is not only the individual barriers, but very much the national political decisions that decide the adaptation of information technology. If the prices are high the amount of users is low. In countries where the politicians have decided to concretely support the adaptation of the knowledge society the prices have rapidly decreased and the amount of consumers is growing with an accelerating speed.

The traditions have a great influence in our working environment, its hierarchies and working methods. In the Nordic countries as well as in the US a major part of correspondence can be implemented by e-mail, but in the middle and south of Europe letter is still to be answered by a letter, not by the e-mail, hand-writing is more valuable than typing. And many decision-makers do not use computer and e-mail themselves at all, but via their secretary. Many presidents still dictate or draft all their messages and letters by hand.

Typically there are two kinds of attitudes. Technology is regarded as a magic tool that easily solves all problems; the investments and skills needed are under-estimated. Or on the other hand technical tools are not needed: we have managed without them until now, and new skills are not willingly adapted.

It is often forgotten that the technical tools as such do not implement the work, they only open possibilities. A high-class electronic publication needs exactly as much work and skills as when published in a traditional method. Each article still needs to be written and the layout and design have to be done until the last detail. All systems need to be continuously updated. A home site that is not regularly updated soon looses its importance. Sometimes the workload is even growing, because of the speed of the communication. When we put the last dot in our message it is already available in the receiver's computer, and the answer comes without delay demanding again some action!

Future challenges

In an NGO the culture of fast and flexible decision making is a tremendous challenge. In most organisations the international boards have their meetings rather seldom, and to learn to work with e-mail and Internet instead of or at least in addition to long meetings needs a new culture, new way of confidence and new way to delegate the tasks.

The new facilities have also a direct impact to the tasks of the organisation itself as well as in its finances. The information that earlier was a commercial product is today often available in Internet free of charge. Also in those cases where the customers are willing to pay the systems to charge for the information in Internet are still under-developed. But to produce information and keep it updated is still rather expensive!

In some organisations the knowledge society has already started, but in many international organisation there is a long way to go. If an organisation wants to benefit from the information technology the decision-makers have to open their minds and accept the new challenges:

1. development of an interactive multimedia communication
2. long-term visions
3. fast moving, flexible organisations
4. open, transparent decision-making
5. real democracy and participation.

SECOND AND THIRD DAY

THURSDAY AND FRIDAY
JANUARY 7–8, 1999

DIPOLI CONGRESS CENTER,
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Jouni Backman (Finland)
Minister for Administrative Affairs

Opportunities of the Finnish Information Society – National Strategies

Mr and Mrs Chairman
Ladies and Gentlemen

On behalf of the Finnish government I wish you all welcome to the second day of Politics and Internet-conference. As a Member of Parliament I also want to thank the Committee of the Future for the role it has had in initiating this conference.

What is the role of governments in information society development world-wide? What is the role and position of the Finnish government? What opportunities information society development offers Finland? These are main themes I want to discuss today.

Information society development is by its nature a global phenomenon. Information flows freely and a growing part of trade can't be controlled by traditional measures. There is clearly need for new international co-operation in the fields of consumer protection, fight against fraud and economic criminality, intellectual property rights, privacy, information security, taxation and so on.

The global nature and rapid development of networks and services makes traditional law-making processes look slower than ever. And as the laws should be applied internationally, the problem grows.

Governments have different approaches to information society. The United States government does not want to interfere information society development whereas the European approach is to try to see in advance what changes in existing laws and new regulations are needed. The difference causes friction, like we have seen in the adaptation of European privacy protection laws. In many cases the difference is not ideological but one can see commercial and security interests very clearly behind statements.

Both approaches have their merits and problems.

The industry self-regulation propagated by US does not always work. Think of music that is now distributed in MP3 format over the Internet and the music industry and artists can only look and wonder how much money they loose. In this case the music industry didn't react to a new delivery system in the way it had done e.g. in DVD.

The problem of European law-making in information society related maters is to keep the laws general and technology-neutral. E.g. the European directive on electronic signatures was not accepted by the Council in November because many member states, including Finland, could not accept the binding of electronic signing to certain technologies. Techniques come and go and we can't change laws every Internet year!

What is the Finnish Government's Information Society strategy today?

The present government has worked nearly four years now and we are closing our term. When we started, the Finnish economy was recovering from the economic crises. Finland had joined the European Union. The Internet as we know it today was just born.

In information society field the present government has concentrated on the following:
- to fund research, development and education in information and communication technologies
- to get schools wired and computers to support learning
- to use networks in opening decision making and deepening democracy
- to adapt laws and regulations where needed
- to use ICT in administrative development
- to adjust telecommunications regulation to support the growth of the sector

Finland has for the last ten years invested increasingly in science and technology. Finland used to be a producer of low-value goods like timber, pulp and metals. The goal of our science and education policy has been to grow on the information-intensive and high-technology fields. Our research and development spending in relation to GDP is now a good level and growing.

The structure of our industry has changed dramatically. The export of electrical and electronics products has grown rapidly and exceeds now the sales of pulp and paper! The main reason for that is the export of mobile telephony equipment – the infrastructure like exchanges and base stations and the terminals. Growth is rapid also in other high-value industries.

The ICT industry needs a growing number of people. We have increased education in ICT field in universities and vocational schools.

It is important to notice that computers, or embedded chips, and communication devices are increasingly used in most industrial products. E.g. makers of hospital equipment seek regularly programmers and even the valves made by Neles are now fitted with chips and connected to factory networks. And the valve maker now needs people with ICT skills.

Fitting schools with computers and connecting them to Internet has been perhaps the most visible ”information society initiative”. The Ministry of Education started its information society program in 1995 and has since 1996 used about 250 million FIM per year. Most of the funds have gone to universities and polytechnics. Funding the research network, FUNET, and its services for scientific computing has provided universities and research institutes with very fast Internet connections.

Most the money to wire schools has come from the municipalities. It is estimated that about 80 % of all schools are connected to the Internet and the pupils had some 90 000 computers in their use. To have full impact in learning government has also funded teacher training and development of teaching materials.

Internet offers great possibilities to give people access to official information and a way to communicate with decision makers and civil servants. All ministries and agencies have Internet service with growing information base. Municipalities give regularly access to all official records and the small municipality of Kuorevesi even does the preparatory work municipality council meetings openly.

The possibilities and risks of modern networks are reflected in two law proposals that are now in the parliament. One is so called publicity law and the other one is the privacy law, which harmonises the Finnish data-protection law with European legislation. The Ministry of Justice is preparing changes to the law on administrative procedures to facilitate electronic transactions with government.

Our state administration uses information and communication technology very effectively. We have a system of national databases and commonly used identifiers for people, businesses, real-estate and so on. The identifiers are also used in private sector. The databases and identifiers make it possible to

share information to the benefit of citizens. E.g. most tax-payers don't need to fill a tax declaration. They get a prefilled tax-proposal from the tax authority who has compiled the proposal from the information filed by employers, banks, insurance companies, labour unions, real-estate registers, share registers and so on.

In February government decided on measures to speed up the development of electronic services. We decided to build Public Key Infrastructure that can be used to authenticate, sign and encrypt transactions with government. The Population Register Centre acts as Certification Authority and is reponsible for issuing the new identity card that contains the private keys.

Finland has been a European leader in telecommunications deregulation. We have a competitive market in all fields of telecommunications with the exception of the local loop to private homes were the local companies have a de-facto monopoly.

Our telecommunications policy has benefited the consumers, service providers and the equipment makers. We have very good service coverage in the whole country and the costs are lower than OECD average. Finland was the first country where mobile phone penetration exceeded 50% and now the penetration is already almost 60%. The Finnish experience shows that mobile phone penetration grows very rapidly when a certain level has been reached. In Finland it is the norm that everyone has his or her private telephone – a mobile one.

Finland has not put the mobile phone licences to auction like many other countries have done. In December Ministry of Transport and Communications offered the possibility to apply for licences of 3rd generation mobile communication services. There are frequencies for maximum four operators and the licences will be for 20 years.

Mobile telecommunications require large investments before the service starts to generate revenue. The high fees that governments have charged for licences have slowed the development of mobile services. Finland is the first European country to give licences to 3rd generation mobile services and we hope to be the first in having the services available.

Our open telecommunications market has been a key factor in the development of Finnish telecommunications industry. Our industry, Nokia being the largest but not only one, has never had a sheltered home market in telecommunication sector. It has had demanding private local telecommunication companies and a state-owned commercially oriented operator as potential customers.

Finland is also leading the Internet penetration statistics though the figures are somewhat ambiguous. Full Internet -service is available at 50 FIM a month flat rate, about 50% below the US standard rate. Most of the Internet costs to home users come from the local telephone company who have actually risen their charges for local calls. Some competition is coming from the cable TV companies but their market share of Internet access is very small.

Use of Internet has grown without any stated policy. Internet started in Finland from the government funded Funet -network that in the beginning sold capacity also to private sector research institutes. The first private Internet Service Provider was the Finnish Unix Users Group FUUG. That operation is after several changes of ownership now part of the Quest corporation of US. Today there are tens of ISPs, but the market is concentrating fast due to heavy price competition.

The management of the .fi domain was handled by the association of Finnish ISP:s, the FICIX. In 1996 the companies asked government to take over the domain name administration and since 1997 our Telecommunications Administration Centre has done the job.

Ladies and gentlemen

Our government is closing its books. I will not guess what our next government will do with information society issues. I have not seen any major differences in how parties see governments role in the issues and this leads me to think that we will continue among the lines I have described you.

We live in information society. Information and communications technologies are used in all sectors, information management is growing part in all management and digital media takes a growing part of the time we use to learn and entertain ourselves.

Because we live in information society I don't see any need to specific Information Society strategies. The question is about how we develop Finland as a member in the global family of nations to the benefit of citizens.

To see the future and governments role in information society development we must first analyse the changes technological development creates in trade, industry and services. On that basis we have to analyse the roles of public and private sector and then define the role of government. So far the Finnish way has been very pragmatic – government has not invested or regulated but it has tried to offer possibilities. In the future we face issues like the concept of work, income and changing democracy that must be addressed.

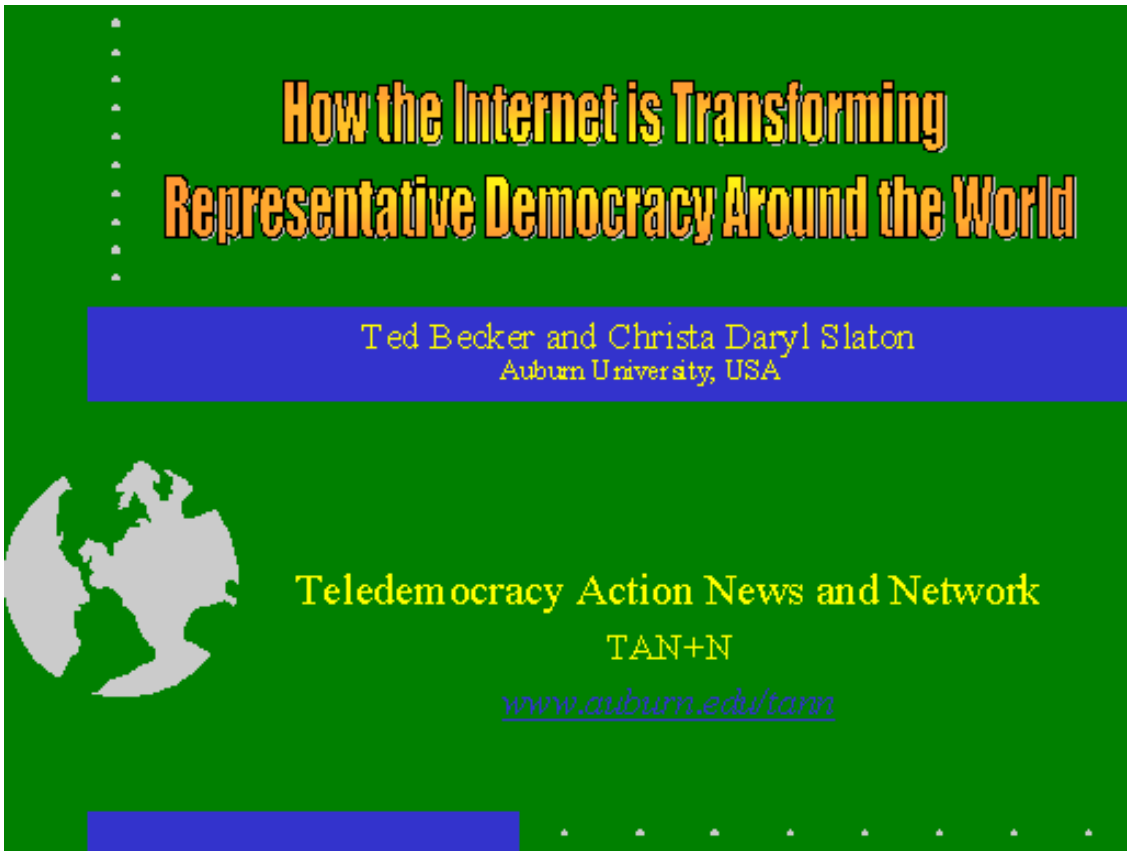
I thank you for your attention and I wish you a successful conference and a pleasant stay in our country.

Professor Ted Becker and Professor Christa Slaton (USA)

Internet Already Changing Policy

Slices:

Slices presented by professors Becker and Slaton are found in Internet (www.kolumbus.fi/pi99).



According to the Finnish News Agency it was important to notice the inluence of Internet to activities of politics. Citizen initiatives and campaigns organized via the Internet are already changing policy in the United States, Profs. Ted Becker and Christa Slaton state.

Prof. Becker considers it entirely possible that the 2000 presidential elections will see a successful third party candidate whose supporters have organized themselves via the Internet.

At the state level, the Internet recently raised its first politician to electoral victory. ”*In Minnesota,”* Prof. Becker says, *”former professional wrestler Jesse ’the Body’ Ventura has been elected governor. Young people who generally don’t vote became enthusiastic about him, discussing him and campaigning for him over the Internet. Ventura defeated two favoured professional politicians, even although the major media treated him as a buffoon.”*

In the last presidential election, a candidate from outside the two-party system, billionaire Ross Perot, fared relatively well, but his efforts required a huge sum of money.

One-issue movements have been proliferating. In Alabama, civil-liberties activists and the Religious Right found each other in a campaign conducted over the Internet. The effort opposed police plans to take the fingerprints of persons applying for driving-licences. Internet activists campaigned in 14 states for laws or constitutional amendments limiting the terms of office-holders. In nine of the states, the campaigns proved successful.

Thus far, the most successful international movement has been a campaign spearheaded by citizens’ organizations in opposition to the OECD’s Multilateral Agreement on Investment (MAI).

Mr. Becker concedes that the campaigns are not born of themselves. Organizing requires a great deal of work and money. The term limits movement, for example, collected USD 5 million from its supporters. With the Internet, however, the money goes further.

”Up until now, U.S. Greens have had huge difficulties in organizing their activities,” Slaton notes. *”Now they’re working via the Internet. It’s a lot cheaper than traditional party operations.”*

At present, citizens who don’t believe government assurances that the Y2K bug will not cause serious problems are organizing on the Internet, via which citizens around the country are trading advice on how to prepare for possible computer system problems and the resultant collapse of the food and energy distribution systems.

Dimitri Corpakis, Doctor (EU; Greece)
European Commission, DG XII

Which European Way towards the Wired Democracy ?
Re-engineering the Social Grid Through Networks

The Information Revolution: In recent years, dramatic improvements in Information and Communication Technologies (ICT) have led the Information Economy to an unprecedented growth world-wide. Profound changes already occur in the way people live and work on a scale never before seen in history. The EU is no exception to this rule. Despite the earlier development of the Internet, the real Information Revolution started in Europe when Tim Berners Lee invented the World Wide Web at CERN, the European Laboratory for Particle Physics in 1991. Since then Internet use world-wide has been exploding: Internet users have grown with a spectacular speed: from 3 million in 1994 they have gone up to 100 million in 1998. They are expected to reach 1 billion by 2005. In Western Europe, this number was around 12 million in 1995 and is expected to climb to 66,67 million by 2001. The Knowledge Based Economy Leads the World: Shaped by the ubiquitous presence of computing and the pervasive nature of networking, a new economy is thriving. Service industries and the high technology sectors have been given new life through the advancements of the information society. New economic rules are challenging the decision makers world-wide and new types of businesses are emerging: the world is heading towards a new global economy marked by the rise of electronic commerce, a 300 Billion Dollar business by 2005.

The European Union and the Information Society: The European Commission pioneered the Information Society concept (1993) in its White Paper on Growth, Competitiveness and Employment. This concept embodies technological, cultural as well as socio-economic considerations (vs the ”Information highways” concept of the US). It has to be underlined that the Commission is a leader in developing the European Information Society: its initiatives have been instrumental to the overall development of the Internet since the mid 1980’s. Ground work has been performed in R&D programmes like ESPRIT, RACE, TELEMATICS and DELTA. Further to this, a large number of supporting accompanying measures in favor of the overall development of the Information Society have been undertaken through ISAC and ISPO. The Commission is also a major partner of the World Wide Web Consortium (W3C), the world standards authority for the development of the Web (for example through the WEBCORE, W3C-LA projects et al).

…But we are not dealing only with technology! The Commission has supported a large number of experimental pilot projects in the regions with obvious benefits on employment and local growth. It has also backed projects in developing countries. Further to this, it has promoted the Europe-wide organisation of Netd@ys in schools, supporting actively the idea of connecting the maximum of European educational establishments to the Internet. Equally, it has taken serious regulatory steps for developing electronic commerce in Europe.

Developing Networks for People and Their Communities: Networking increases social interaction, and therefore plays a potential catalytic role to the process of democracy. New opportunities for social work in the less favored parts of society are emerging, especially in the urban environment. A new wide range of creative applications in education, training, health, dissemination of government information and consultation of the citizen are now possible. The Commission has been active in developing a

consistent policy on the social aspects of the Information Society. It has developed a large number of policy documents as early as 1996 on the social dimension of the emerging Information Society. It has stressed particularly its innovative dimension but has also underlined the challenges, opportunities and risks related with it, in particular to what concerns employment. With its latest Communication, it tried to formulate a coherent employment strategy for the Union, in the context of the Information Society.

The Information Society brings in New Ways for Social Interaction:

- Electronic communication is freed from burdens linked with conventional social status quo: physical looks, occupation, professional status, voice (even language accent in some cases). This can encompass a wide range of different scales and situations: from a small intra-business working group to a local community association, or a nation-wide consultation, dialogue may flourish through the new communication networks.
- New Opportunities for Social Work: Information and communication technologies can bring a whole new life to local resource centres: there are new possibilities for social upgrade through education, training, and cultural activities facilitated by the new media; life-long learning may be more effective; and interconnecting isolated ICT resource centres may boost their performance / cheaply and easily (through the World Wide Web). Access to health information resources and health management techniques, economic information for the small and medium sized enterprises, low-cost access to e-mail and Web resources, can turn local district Internet centres to powerhouses of a new productivity.

Risks and inequalities the Information Society: Despite the pace of its growth there are still disparities in the spread of the Information Society: it is well known that there are more telephone appliances in the Manhattan area than in Africa as a whole. ICT penetration may well be soon the leading indicator of progress in the advanced economies and an indisputable index of wealth.

But there are also new risks for the citizen...Privacy is threatened over the networks. Messaging authentication remains an issue (find out if they are who they say they are) – digital signatures are essential. On the other hand, new techniques based on new ICT advances, notably data mining and data profiling are able to build new public identities on the Internet, thus facilitating electronic commerce but opening also the way to possible abuse. Cryptography, emerges as an ambivalent technology; on the one hand it can protect individual and organisations' privacy; on the other, it can prevent the law enforcement authorities to impose the law in certain cases.

Towards a New Global Code of Conduct: In the Commission's view, Governments need to work together at a global scale, with a common vision. Converging ICT technologies require a new regulatory framework . A fair balance seems necessary between the interests of producers and those of consumers of electronic goods and services. In this respect the principles endorsed by the G7 Brussels Conference (1995) are still valid: (i.e.):

1. Promote dynamic competition
2. Encourage private investment
3. Define an adaptable regulatory framework
4. Provide open access to networks, ensuring universal provision of and access to services
5. Promote equality of opportunity to the citizen
6. Promote diversity of content; including cultural and linguistic diversity
7. Recognise the necessity of world-wide co-operation with particular attention to less developed countries.

Developing Democracy over the Networks: The Bristol Declaration of the EU Information Society Forum(I) (Sep. 1998) sets out a number of principles: it talks of accessibility, affordability, cultural diversity, empowerment, equality, freedom of expression, open democracy, public service and espe cially freedom of information. These must be at the heart of development and promotion of the Information Society.

It stresses also the need for everyone to have the opportunity to share in the benefits of the Information Society through:
1. access to awareness of the potential of technology
2. access to appropriate training in its use
3. affordable access to the appropriate technology
4. access to the decision-making process about the ways in which the technology is applied
5. access by individuals to personal information held about themselves
6. access to systems of redress if such information is inaccurate or is used improperly.

If such information is inaccurate or is used improperly, in order to facilitate democratic participation:

1. local and national administrations need to devise and implement coherent strategies, to create a user-friendly infrastructure for the Information Society and, in particular, frameworks for inter-agency co-operation to simplify and improve access to public services;
2. educational institutions need to develop accessible systems of service delivery which encourage everyone to make use of opportunities to gain skills and continue education throughout their lives;
3. develop ways to combat social exclusion.

Jens Thorhauge, Director (Denmark)

Danish National Library Authority

Open Access to Information: The Role of Public Libraries

Public libraries stand for open access to information and culture. They support citizens and institutions in benefiting from the information, and they constantly work to expand the range of possibilities for citizens to develop their potential in every field. In the Information Society the use of information is growing and the demand for access and support to find the right information is being expressed by a growing number of citizens.

Networking in general and the Internet in particular are resulting in a shift of paradigm in libraries, the change from collection orientation to connection- and user orientation being the most important. The public library in the Information Society will offer access to all kinds of information no matter how it be stored. Printed material will still be important, but the use of electronic access to information will grow rapidly. New services are being developed as well as new skills, and the cooperational structure between institutions will change.

The recent development seems to prove that libraries that create new internet-based services and develop a new kind of user orientation will indeed increase their impact.

The background – once again

Is that knowledge is the crucial competitive factor in the Information Society. The World Bank recently stated that knowledge is the single most important factor in developing and maintaining a welfare state. In the Information Society a much bigger knowledge potential is accessible than ever before – the role of the library is to facilitate the exploitation of this growing potential.

The way in which we deal with information and IT-changes is already affecting our jobs and daily lives in nearly all aspects. We see new industries, new markets, new jobs, new cultural trends pop up all the time. In the library field the perspective is that via networks more people may get access to a larger amount of information in a quicker and easier way. An important point is, that in principle the user gets access to the same amount of digitized material whether she is a user of a branch library in northern Finland or a user of Library of Congress.

All known green papers aim at dealing with the changes on the broadest possible basis for economic, democratic and social reasons. Important points are the necessity to update the workforce to a still more information heavy production, to give general access to public information – including electronic information and the necessity to establish strategies to avoid the serious threat of social tensions deriving from a divided society.

So strategies are needed in the information society
1. to provide access to all published information
2. to offer lifelong learning opportunities
3. to ensure general computer literacy
4. to safeguard cultural identity in a rapidly changing world.

The obvious threat being a widening gap between information rich and information poor, “have” and “have-nots”.

A basic question in this context is whether we should build on existing institutions i.e. public libraries even if they are some times slow in changing, and often lack necessary skills? Or we should build new frames? The answer depends on at least one other answer: will Internet make libraries completely virtual or will the book remain as an essential carrier of knowledge?

My answer is that we should build on existing libraries but at the same time accelerate the shift in paradigm. Public libraries face the challenges and needs in many countries. The reason for this is that at the moment it seems as if the Internet is the book’s best friend, inspiring to an extended use of printed material.

Visions and recommendations

Basically the same line is taken in the large number of green papers and reports on the Information society and the role of education, lifelong learning and culture. Some examples:

In the English report ”New Library: The People’s Network” it is suggested that

Tomorrow’s new library will be

1. a key agent in enabling people of all ages to prosper in the info-society
2. an integrated component of a new educational system
3. open and accessible to all, without preconditions
4. continuing to make information about every aspect of life available
5. involving itself more fully in the democratic process.

In the European Commission study Public Libraries and the Information Society a vision is presented of an updated library in every community in Europe.

The updated library offers

1. access to the human record in whatever form it might be stored
2. a lending collection of printed and digitized media
3. access to networks and support for net navigation & information searching
4. workstations for customers
5. open learning and training opportunities
6. physical place offering various meeting facilities
7. electronic document delivery services .

It will be part of a worldwide library network, it will cooperate closely with other educational and memory institutions be a community information provider offer special service to various groups of users.

The European Parliament’s own initiative report on modern libraries presents a large number of recommendations and statements, for instance: “14. Recommends that the Member States provide all types of library with modern equipment, particularly Internet connections, and adequate funding to enable libraries to continue to meet the challenges facing citizens of the information society and also take into account the costs arising from licence payments pertaining to electronic documents..” etc.

On this basis we may conclude that the new challenges to the public library are

To offer

1. physical access to networks at the library
2. support and learning opportunities
3. new services and new professional roles: net navigator – the library educator- the consultant
4. remote access to the library – new order & delivery services, digitized information
5. new organisational and management structure
6. ability to constantly develop new skills
7. ability to develop new services.

If we succeed the public library will be a new paradigm institution in the Information Society bridging culture, information, technology and learning based on democratic values.

What is needed?
Basically we face some political needs to implement the new paradigm:

8. A national policy for public libraries including inter-library cooperation
9. A national information policy including public libraries
10. National, regional, local strategies for implementation of new services
11. Appropriate range of possibilities for professional continuing education and training
12. closer cooperation between different institutions and their users.

In Finland and in my own country, Denmark we have experienced a high speed move towards establishing Internet-based services in all libraries.

The shift of paradigm

Let us take a closer look at the stages of the move from the paper-based, manual library to the updated hybrid library of the Information Society.

1. automation of library housekeeping cataloguing, circulation, stock control, acquisition
2. public access to the digitized catalogue
3. access to Internet resources – staff use/users
   server-based Internet services available from the library's homepage
4. access to library catalogues (searching, reservation, renewal)
5. selected links to Internet resources, Internet guides
6. targeted services for children, immigrants, local community, elderly, business, (life circle)
5. special information: cultural events, authors' networks.

Closely connected with this development you will see an organisational change based on a general change from collection orientation to user orientation. Professional values change, methodological and ethical concepts become more central. New professional roles including a growing personal involvement, and consultancy functions in new fields will go hand in hand with new management concepts and a new commitment.

Today many European countries are working on a concept for digital library service as part of the full library service. A model is for instance Denmark's Electronic Research Library which will give access from any connected computer to

6. electronic journals
7. to search, ordering, delivery facilities in the national networking libraries
8. digitized special collections
9. 24-hours hotline service
10. special delivery service for printed material
11. Internet guides to printed collections
12. high level consultancy services in information questions
13. fee-based quick service offers
14. publishing facilities.

In a number of countries you will find barriers for fulfilling this vision. The most obvious are inadequate technological skills among librarians caused by old-fashioned education and lack of continuing education and training opportunities. But that situation arrises mostly from a lack of concrete plans for networking and lack of technical support resulting from inadequate funding and lack of political focus. In other words: lack of a vision for the role of the public library and lack of political support to develop the tools with which to turn vision into reality.

Where you identify these barriers, political goals should be to

15. support programmes for establishing IT-development
16. support continuing education and training opportunities
17. support curriculum development at library schools
18. establish funding models for Internet facilities
19. renew legislation framework.

To conclude

Today the Internet is affecting the public libraries in various ways. It is a tool for quicker and extended cooperation among libraries. It is the basis for a number of new services for users, such as access to the Internet from the library, remote access to catalogue and homepage facilities and easier and extended access to the library.

New learning and training facilities are set up for users, and new consultancy services are offered for private firms, institutions and citizens. A final good question is: what will the future knowledge society bring? Or a less demanding one: what are the challenges of the next decade?

My list contains both practical and political goals:
20. create high quality content in Internet resources
21. establish well-functioning Internet guides
22. personal/target-oriented services
23. build bridges between printed and digitized resources to
24. use the internet for promoting traditional library services
25. develop the learning & consulting library further
26. create a co-operative network with institutions served
27. develop new professional roles to
28. play a proactive role in promoting cultural values and
29. strengthening democracy.

Especially the two last bullets will have growing political interest as the public library will be recognised as an enormously powerful agent for change. They are trusted by people to have no ulterior motives. They have a higher number of active users than any other cultural institution, they link culture, lifelong learning, education and public information, they can – soon – be reached at any time from any connected computer. They must incorporate a potential beyond our present imagination.

Chun Wei Choo, Ass. Professor (Canada)

A General Model of Human Information Seeking

While information often has a physical manifestation such as a document or record, the context and meaning of the information therein are created afresh each time it is taken up by a user. Information is enacted by individuals, who cut new cloth from the fabric of their past experience, and tailor the cloth according to the exigencies of the particular situation in which the information is to be used. A general model should embrace the totality of human experience that is information seeking – the thoughts, feelings, actions, and settings in which these are played out. Our starting position is that the information user is a sentient, cognitive person; that information needs are as much felt as they are thought about; and that the context of information use determines in what ways and to what extent the received information is useful (Choo 1998a,b). While individual information behavior may exhibit infinite variety, order may be found by unraveling the cognitive, affective and situational layers that enfold information seeking and use.

This paper analyzes information seeking as three overlapping processes – experiencing information needs, information seeking, and information use – and examines the underlying cognitive, affective, and situational interactions in each process (Figure 1).

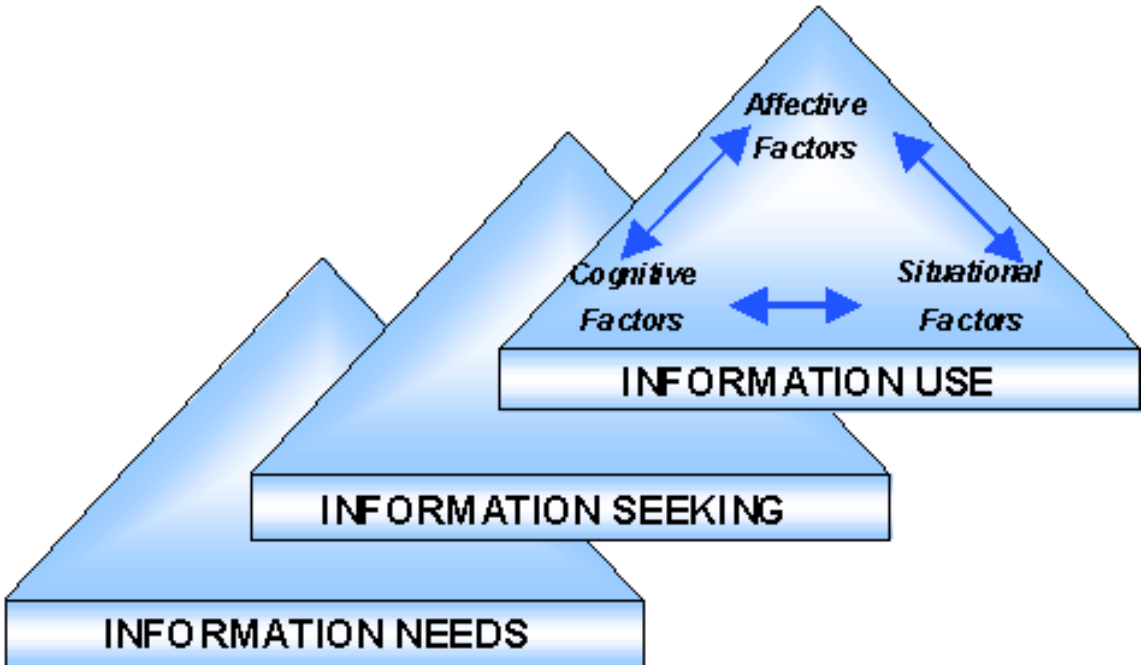


Figure 1. Human Information Seeking Processes

1. Information Needs

Information needs are typically thought of as cognitive needs – gaps or anomalies in the state of knowledge or understanding that may be represented by questions. Satisfying the cognitive need then involves retrieving information whose subject matter matches that of the query. In a subjective/ constructivist view of information, "the individual would be perceived not merely as driven to seek information for cognitive ends, but as living and working in social settings which create their own motivations to seek information to help satisfy largely affective needs." (Wilson 1981, p. 9, 10) Thus, information has to satisfy not just cognitive needs, but also affective needs and situational requirements (Figure 2).

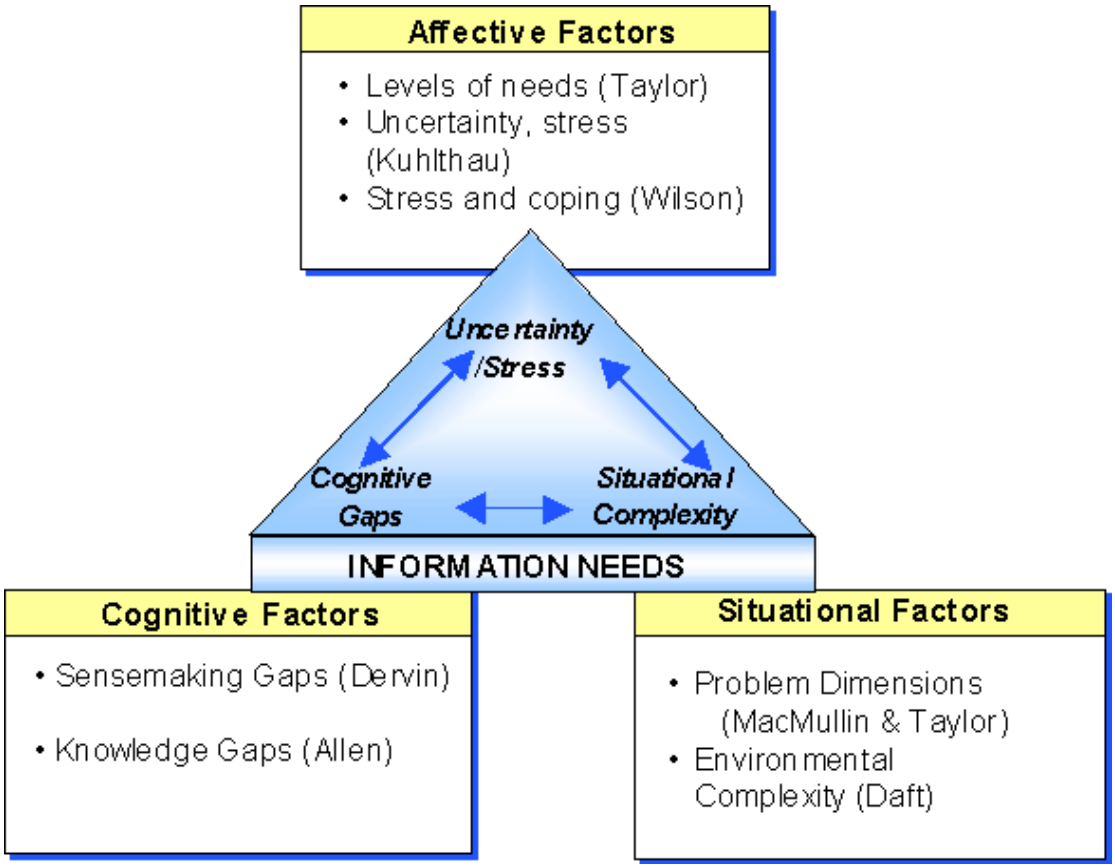


Figure 2. Information Needs

1.1 Information Needs: Cognitive Dimensions

In recent years, Dervin (1983a,b, 1992) has been active in developing a sensemaking metaphor to describe how humans perceive information needs as cognitive gaps. In the sensemaking approach, a person is moving through space and time, taking steps through experiences. As long as she is able to make sense of her experiences, movement ahead is possible. From time to time, movement is blocked by the perception of a cognitive gap – a situation that the person is unable to make sense of. To bridge this gap, the person seeks information to make new sense and uses the information to help her continue

her journey. Dervin and her associates have completed over 40 studies in the past two decades based on the sensemaking approach. Their research suggests that the ways in which people perceive their cognitive gaps and the ways that they want information to help are good predictors of their information seeking behaviors. Better yet, the ways in which people perceive and define their sensemaking gaps can be coded into universal categories that are applicable across different groups of information users. Dervin (1992) has identified 8 situation gap categories:

Table 1 Sensemaking Gaps (Dervin 1992)

Decision stop	where the person sees two or more roads ahead;
Barrier stop	where the person sees one road ahead but something or someone stands on the road blocking the way;
Spin-out stop	where the person sees self as having no road;
Wash-out stop	where the person sees self as on a road that suddenly disappears;
Problematic stop	where the person sees self as being dragged down a road not of his or her own choosing
Perceptual embeddedness	where the person judges how foggy is the road ahead
Situational embeddedness	where the person judges how many intersections are on the road, and
Social embeddedness	where the person judges how many people are also travelling.

Allen (1996) suggests that information needs occur whenever an individual's knowledge fails. Allen analyzes information needs as knowledge gaps that are experienced when an individual's life situation interacts with his or her knowledge or cognitive structures, and reveals a deficiency in understanding. He identifies three categories of information needs based on knowledge gaps:

(1) information needs that arise from failure of perception (that is, the individual is unable to perceive the situation);

(2) information needs associated with exploring a topic area so as to identify alternative courses of action;

(3) information needs that arise from choosing between alternative courses of action (that invol ves evaluating alternatives and their outcomes).

1.2 Information Needs: Affective Dimensions

Cognitive needs are draped in affective responses so that they are as much felt as they are thought about. When sense has run out, the lack of understanding creates a state of uncertainty. Kuhlthau (1993) describes how uncertainty causes a number of affective symptoms, including anxiety, apprehension, confusion, frustration, and lack of confidence. These affective states motivate and direct the individual's information seeking and information use experience. Affective responses influence, and are influenced by, the individual's ability to construct meaning, focus information needs, manage moods and expectations, and deepen personal interest in the search.

Taylor (1968) postulates that human beings experience four levels of information needs – visceral need, conscious need, formalized need, and compromised need. At the *visceral level*, the person expe riences a vague sense of dissatisfaction, a gap in knowledge or understanding that is often inexpressible in linguistic terms. The visceral need enters the *conscious level*, where the person develops a mental description of the area of indecision, which is likely to be in the form of rambling statements or a narrative. At the *formalized level*, the inquirer is able to construct a qualified, rational statement of the information need, expressed for example in the form of a question or topic. When the user interacts with an information source or system, the question is modified or recast in anticipation of what the source or system knows or is able to deliver. In this sense the question finally presented represents the information need at the *compromised level*.

Wilson (1997) suggests that uncertainty and its affective symptoms constitute a state of stress that the individual has to cope with. For example, research in health information seeking has contrasted "mo nitors" who prefer high levels of information input to cope with a stressful event and suffer less psychological arousal when they have the information; with "blunters" who prefer less information and suffer greater arousal when they receive a high information input (Miller and Mangan 1983). Wilson also examines the relationship between information needs and coping by applying Krohne's (1986, 1989) model of coping. When an individual's intolerance of uncertainty is high but the intolerance of arousal is low, the individual copes through "constant monitoring." On the other hand, when both uncertainty intolerance and arousal intolerance are high, the individual engages in "fluctuating coping."

1.3 Information Needs: Situational Dimensions

Information needs arise from the problems, uncertainties, and ambiguities encountered in specific situations and experiences. Such situations and experiences are the composite of a large number of elements that relate not just to subject matter, but also to situational factors such as goal clarity and consensus, magnitude of risk, amount of control, professional and social norms, time and resource constraints, and so on. As a result, the determination of information needs must not stop at asking "What do you want to know?" but must also answer questions like: "Why do you need to know it?" "What does your problem look like?" "What do you know already?" "What do you anticipate finding?" and "How will this help you?" MacMullin and Taylor (1984) suggest that problem situations be analyzed according to a number of **problem dimensions** that amplify information needs and form the criteria by which individuals assess the relevance and value of information (Table 2).

Table 2 Problem Dimensions (MacMullin and Taylor 1984)

	Problem Dimensions: Problems lie on a continuum between…	**Information Needs (Examples)**
1	Design	Options, alternatives, ranges
	Discovery	Small, detailed sets of data
2	Well-structured	Hard, quantitative data
	Ill-structured	Probablistic data on how to proceed
3	Simple	Path to goal state
	Complex	Ways to reduce problem to simpler tasks
4	Specific goals	Goal operationalization and measurement
	Amorphous goals	Preferences and directions
5	Initial state understood	Clarify unclear aspects of initial state
	Initial state not understood	Soft, qualitative data to define initial state
6	Assumptions agreed upon	Information to help define problems
	Assumptions not agreed upon	Views of the world, definition of terms
7	Assumptions explicit	Range of options, frames to analyze problems
	Assumptions not explicit	Information to make assumptions explicit
8	Familiar pattern	Procedural and historical information
	New pattern	Substantive and future-oriented information
9	Magnitude of risk not great	Cost-effective search
	Magnitude of risk great	'Best' available information: accurate' complete
10	Susceptible to empirical analysis	Objective, aggregated data
	Not susceptible to empirical analysis	Experts' opinions, forecasts, scenarios
11	Internal imposition	Clarification of internal goals, objectives
	External imposition	Information about external environment

Information needs would also vary according to the complexity of the situation in which the information is to be utilized. **Situational complexity** increases when many actors and entities are involved, and when these agents interrelate in complicated and unpredictable ways. A specific measure of situational complexity is *perceived environmental uncertainty*, a variable that represents the the external environment's perceived complexity and changeability. It is operationalized as lack of information about environmental factors; lack of knowledge about the outcome of an action; and inability to assess how environmental factors affect the outcome (Duncan 1972). Research suggests that perceived environmental uncertainty is a good predictor of the scope and intensity of environmental scanning (Auster & Choo 1994, Choo & Auster 1993).

2. Information Seeking

The experiencing of information needs does not always lead to information seeking. People may rely on their own memory or intuition to fill the information need. People may also suppress their information needs or avoid a problem situation so that no information seeking is necessary: "People can, and frequently do, engage in information avoidance. They interact with their environment by limiting their intake of information, ignoring information if it is associated with negative outcomes, and taking information shortcuts." (Allen 1996, p. 109) When information seeking does occur, it is purposive and goal-directed, and resembles a problem-solving or decision-making process. The individual identifies possible sources, differentiates and chooses a few sources, locates or makes contact with them, and interacts with the sources in order to obtain the desired information. Research suggests that when deciding between sources, an individual weighs the amount of effort required to use a source against the anticipated usefulness of the information from that source. At the same time, this evaluation of cost and benefit is modulated by the individual's personal interest and motivation, and by the complexity of the task or problem at hand.

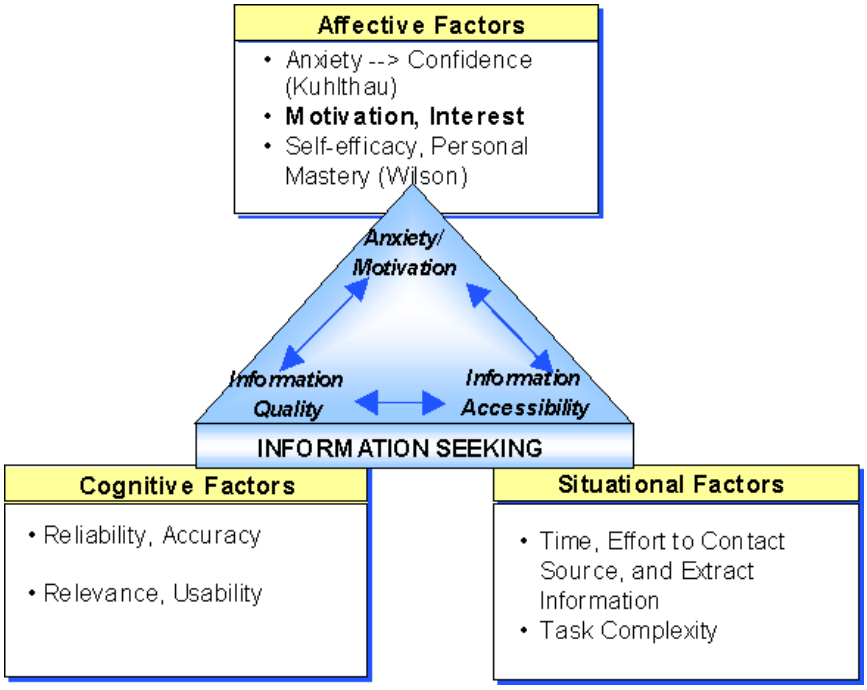


Figure 3. Information Seeking

2.1 Information Seeking: Cognitive Dimensions

At the cognitive level, the individual would select a source that is perceived to have the greater probability of providing information that will be relevant, and useful. Moreover, the individual would be concerned with the accuracy and reliability of the source. Research in information seeking often groups together some or all of the relevance- and reliability-related attributes under the rubric of **perceived source quality**.

Saracevic (1970) includes in his summary list of definitions the notions that relevance is "a measure of usefulness of an answer" and "an indication of significance to an important purpose." Relevant information includes "ideas or facts so closely related to the problem at hand that disregarding them would alter the problem" (p.120). Eisenberg and Schamber (1988) add that "Relevance is a measure of utility existing between a document and a question as judged by a requester" (p.166). In the subjective view of information, relevance is a relationship between information and query that is constructed or determined by the user. Relevance is assumed to be:

- Subjective, depending on human judgment and thus not an inherent characteristic of information or document;
- Cognitive, depending ultimately on human knowledge and perceptions;
- Situational, relating to individual users' information problems;
- Multidimensional, influenced by many factors;
- Dynamic, constantly changing over time; and
- Measurable, observable at a single location in time.
  (Schamber 1994, Harter 1992, Saracevic 1970, 1975)

Taylor (1986) suggests that the *reliability* of a source represents the summation of many of the values of that source. He defines reliability as "the trust a user has in the consistency of quality performance of the system and its outputs over time." The system or source is "consistent in maintaining its accepted level of accuracy, of currency, of comprehensiveness (or selectivity as the case may be), and it can be relied upon to do so in the future" (p.64). Nilan and his colleagues (Nilan, Peek and Snyder 1988; Halpern and Nilan 1988) investigated the source evaluation criteria that information seekers apply. Among the fifteen source criteria that were reported most frequently, the top five were "Authority or expertise based on credentials," "Authority or expertise based on experience," "Only perceived source," and "Trust."

2.2 Information Seeking: Affective Dimensions

At the affective level, the individual's degree of **personal motivation and interest** in the problem or topic would determine the amount of energy that he or she invests in information seeking. Kuhlthau (1993) suggests that as the information search progresses, initial feelings of uncertainty and anxiety fall as confidence rises. If a clear theme is developed to focus the search, the individual may become more highly motivated, and if the search proceeds well, there is a growing feeling of satisfaction and accomplishment.

Kuhlthau postulates that information search is composed of six stages – initiation, selection, exploration, formulation, collection, and presentation – each of which is characterized by emotional responses. During *initiation*, the user first recognizes a need for more information, and feelings of uncertainty and apprehension are common. During *selection*, the user identifies the general area or topic to be investigated. Feelings of uncertainty are replaced by optimism and a readiness to search. During *exploration*, the user expands personal understanding of the general area. Feelings of confusion and doubt may increase. The fourth stage of *formulation* is the turning point of the process in which the user establishes a focus or theme on the problem that can guide searching. Feelings of uncertainty diminish as confidence increases. During *collection*, the user interacts with information systems and services to

gather information. Confidence increases and interest in the project deepens. With a clear sense of direction, the user is able to specify and look for particular, relevant information. In the final stage of *presentation*, the user completes the search and resolves the problem. There is a sense of relief, accompanied by satisfaction if the search is thought to have gone well, or disappointment otherwise.

Drawing from social learning theory, Wilson (1997) suggests that the construct of self-efficacy or sense of personal mastery (Bandura 1977) may influence information seeking. Thus, Bandura postulates that an individual's belief or feeling about his or her own effectiveness would affect whether the individual even tries to cope with situation. Wilson reasons that since a strong feeling of self-efficacy or personal mastery about using a source would lead to a more extended and intensive use of that source, doubt about one's capacity to use a source properly would lead to that source not being used, even if the source might be perceived to contain relevant information.

2.3 Information Seeking: Situational Dimensions

At the situational level, the selection and use of sources is influenced by the amount of time and effort that is required to locate or contact the source, and to interact with the source to extract information. These source attributes may be bundled together in a variable called **perceived source accessibility**.

In a pathbreaking study by Gerstberger and Allen (1968) of how engineers select information sources for problem solving, the engineers kept 15-week records of the progress of their R&D projects, and ranked 9 information sources on the basis of their perceived accessibility, perceived technical quality, and other traits. The study concluded that *accessibility* was the single most important determinant of source use. However, when the engineers considered whether to accept or reject ideas from sources, the dominant factor then became the *technical quality* of the sources. In other words, engineers *use* sources in proportion to accessibility, but they *accept* ideas from these sources in proportion to technical quality (Gerstberger and Allen 1968, 279; Paisley 1968).

Culnan (1985) proposes perceived source accessibility as the unifying concept for the design and evaluation of a wide variety of information systems and services. She defines perceived accessibility as the "expected level of effort required to use a particular information source" (Culnan 1985, 302). She defines three dimensions of accessibility: gaining physical access to the information source (physical dimension); translating an information need or request into a language that is understood by the source (interface dimension); and being able to physically retrieve the potentially relevant information (informational dimension). We may add a fourth, psychological dimension: bearing the psychological cost of for example, dealing with an unpleasant source, or revealing one's ignorance or need for assistance.

Quite apart from source characteristics, the complexity of the task or the uncertainty of the task environment would also influence information seeking. A complex task characterized by numerous interdependent task elements that can behave and interact unpredictably may require broader information gathering and processing. Analogously, a task environment marked by volatility and turbulence may induce greater information scanning. **Task complexity** depends on the knowledge, tools and techniques that are used to transform inputs into organizational outputs. Perrow (1967) describes how this task technology is defined by the frequency of unexpected and novel events (task variety), and the extent to which the process is analyzable and controlled by standard practices (task analyzability). Thus, in organizations which apply technology with high task variety and low task analyzability, large amounts of information are used to handle exceptions and rich information media are used to resolve unanalyzable issues.

Figure 4 summarizes our discussion of information seeking in this section. The selection and use of information sources is influenced by two sets of source-related attributes: perceived source accessibility and perceived source quality. At the same time, the relative importance of perceived source attributes is modulated by the complexity of the task to be accomplished, and by the personal interest and motivation of the individual in the search.

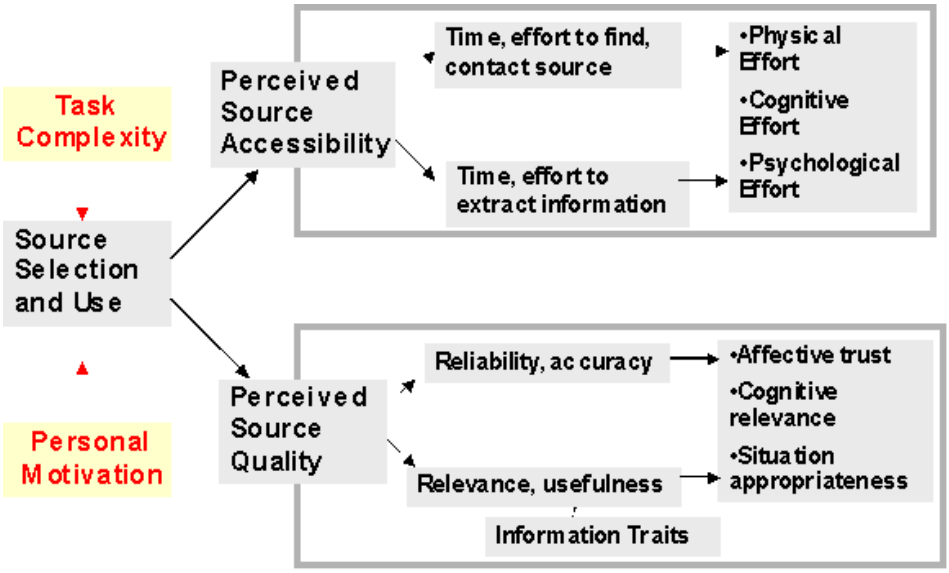


Figure 4. Information Seeking: Perceived Source Accessibility and Quality

3. Information Use

Information use occurs when the recipient processes information by engaging mental schemas and emotional responses within a larger social and cultural context. The outcome of information use is a change in the individual's state of knowledge (increase awareness, understand a situation), or capacity to act (solve a problem, make a decision, negotiate a position). Taylor (1991) observes that the ways in which people use information may be described by just eight categories: develop a context; understand a particular situation; know what and how to do something; get the facts about something; confirm another item of information; project future events; motivate or sustain personal involvement; and develop relationships, enhance status, reputation or personal fulfillment.

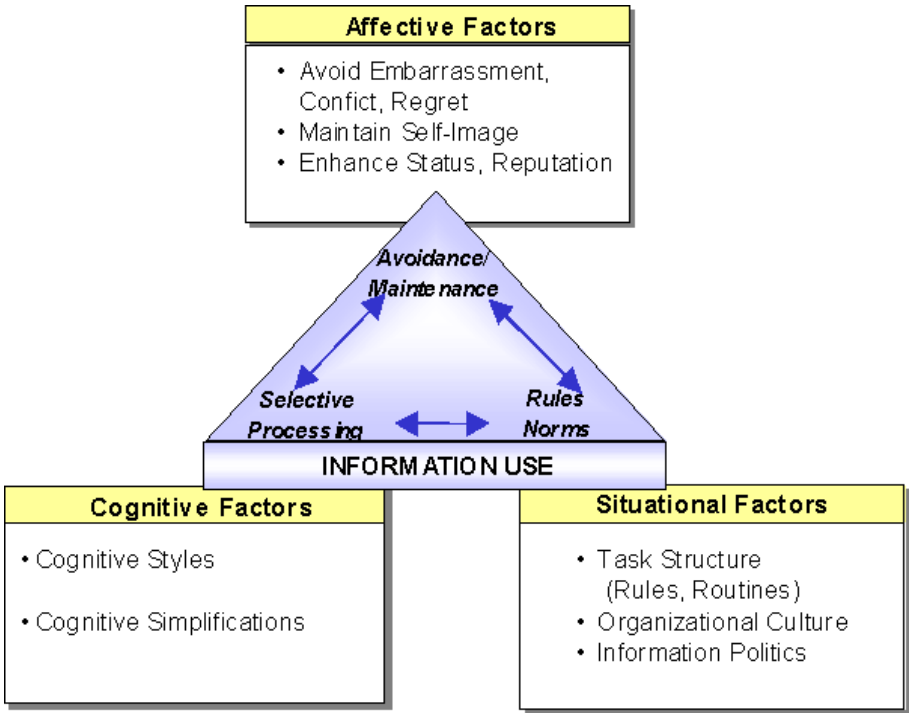


Figure 5. Information Use

3.1 Information Use: Cognitive Dimensions

At the cognitive level, the individual's cognitive style and preferences would influence the manner that information is processed and utilized. A number of methods and instruments have been developed to differentiate personality types and cognitive preferences. One of the most widely used personality assessment instruments in the world is the Myers-Briggs Type Indicator (MBTI) classification, which is derived from the work of Carl Jung (Bayne 1995). MBTI analyzes personality types based on four pairs of traits:

- Introversion versus Extraversion:
  Introverts draw mental energy from themselves whereas extroverts draw energy from others.
- Sensing versus "Intuiting":
  Sensing types rely on information perceived through their five senses. Intuitive types rely more on patterns, relationships, and hunches.
- Thinking versus Feeling:
  Thinking types use information to make logical decisions based on objective criteria. Feeling types depend on personal values to decide between right and wrong.
- Judging versus Perceiving:
  Judging types move quickly to closure by making use of the available information. Perceiving types keep their options open by taking their time to gather sufficient information.

These four pairs of attributes are combined to create a matrix of 16 personality types. Each personality type is expected to display distinctive styles and preferences when processing and using information, as outlined above.

In processing information, people rely on a limited number of shortcuts to reduce the complex task into simpler judgmental operations. These heuristics are two-edged, for while they reduce mental effort in decision making, their use can also lead to systemic biases or errors in judgment. Tversky and Kahneman (1974) describe three sets of heuristics that are commonly used: representativeness, availability, and anchoring and adjustment. In certain situations, these simplifications can produce errors or biases. People use the *representativeness heuristic* to judge whether an event belongs to a category, people rely on mental stereotypes, but they often ignore other relevant information such as the distribution of the categories in the general population. People use the *availability heuristic* to judge the frequency or likelihood of an event, but over-rely on recent, vivid, easy-to-recall information. People use the *anchoring heuristic* to estimate a quantity they make adjustments from an initial anchor or suggestion, but the adjustments are often inadequate. Anchoring may also be qualitative, as when first impressions persist and remain difficult to erase or modify.

3.2 Information Use: Affective Dimensions

At the affective level, we may expect that when people process information, they avoid using information that will arouse strong, negative emotions in others or in themselves. People use information selectively to avoid embarrassment, conflict or regret; to maintain self-image; and to enhance personal status or reputation.

Argyris (1994) explains how in the name of maintaining "morale" and "considerateness," people in organizations often censor and control their use of information. When facing problems presenting potential threat or embarrassment, they often reason and behave defensively. Argyris reasons that this form of defensive reasoning serves no purpose except self-protection, although the people who use it rarely acknowledge that they are protecting themselves. Instead they believe they are protecting the group, the department, the organization, all for the sake of being positive. The underlying reason for such behavior is psychological, and has to do with the mental and affective strategies that people learn early in life for dealing with emotional or threatening issues. In stressful situations, people depart from their espoused theory of action based on rational principles and commitments, and instead behave according to a theory-in-use that is driven by the goal: "to avoid vulnerability, risk, embarrassment, and the appearance of incompetence." (Argyris 1994, p. 87)

Two other examples of affective responses shaping information use are the escalation of commitment and the not-invented-here syndrome. In *commitment escalation*, people continue to evaluate positively and maintain a course of action even when the available information indicates that the action is no longer viable, and that withdrawal is necessary to reduce further losses. People persist because they want to save face: they do not want to admit to themselves, much less to others, that they have made an error. In the *not-invented-here syndrome*, members of a longstanding group reject new information from outside the group. This is because group members have developed strong emotional attachment to their beliefs and past decisions, thereby creating a stable environment that reduces the amount of stress and uncertainty that they need to face. The longer the individuals' membership in a group, the more resistant they become towards outside new ideas and information.

3.3 Information Use: Situational Dimensions

At the situational level, the degree to which a task has been structured by **rules and routines** will impact the use of information. Cyert and March (1992/1963) describe how organizations rely on standard operating procedures to guide information processing. They distinguish four major types of procedures: task performance rules, continuing records and reports, information-handling rules, and plans and planning rules. Task performance procedures specify methods for accomplishing tasks and define what information is required and how it is to be used. Records and reports are maintained for the

purposes of control ("someone will check the records") and prediction ("records reflect cause-effect relations"). Policies on records and reports specify what information is captured and stored. Information-handling rules specify how the organization's information is to be routed and filtered: which information to process and pass along, and what channels to use. Plans and planning rules describe how information is used to allocate resources among alternative activities of the organization. The overarching goal of rules and routines is to reduce the information processing load of dealing with a complex world.

Schein (1997) defines **organizational culture** as a pattern of shared assumptions developed by the organization as it learns to cope with its problems of external adaptation and internal integration. Because the assumptions have worked well enough, they are considered valid and are therefore taught to new members as the correct way to perceive, think and feel in relation to those problems. Martin (1992) suggests that organizational culture is simultaneously integrated, differentiated, and fragmented. An organization maintains a set of basic values and assumptions which are consistent in content and in the ways they guide action (integrated perspective). At the same time, the organization contains subcultures that form "islands of localized lucidity," each with its own "coherent meaning system," "providing clear solutions to problems shared by a group." (differentiated perspective) (Martin 1992, p. 93) Organizational cultures also consist of temporary webs of individuals loosely and temporarily connected by the issues they are interested in (fragmented perspective). In any case, organizational culture provides a shared framework to notice and label actions and events, assign value and significance to developments, and collectively make sense of information. An important part of organizational culture is information politics, and a major issue is managing the politics of information use. Thus, Davenport, Eccles and Prusak (1992) found that the most common political model in organizations to be based on information feudalism, where managers act as feudal lords who control information production and use, including what the information means.

4 Human Information Seeking: An Integrated Model

The three processes of information needs, information seeking, and information use may be integrated into a general model of how humans seek information, as shown in Figure 6. Although information seeking and use is a dynamic, non-linear process that often appears disorderly, the model suggests that there is underlying structure in the ways people look for and use information.

As shown in the top triangle of Figure 6, people experience **information needs** when they perceive gaps in their state of knowledge or their ability to make sense. Information needs are shaped by cognitive, affective, and situational factors. The experiencing of information needs does not inevitably lead to information seeking. An individual may respond to information needs in one of three ways. First, the individual may choose to suppress this information need by for example, avoiding the problem situation, so that no information seeking ensues. Second, the individual may search his or her own memory for information that can address the need. Again, no external information seeking occurs. Third, the individual may decide to bridge the gap of knowledge or understanding through purposive information seeking. Purposive **information seeking** is directed towards the goal of solving a problem, making a decision, or increasing understanding (left-hand triangle in Figure 6).

Even as purposive information seeking is going on, information is also being acquired "incidentally" through the individual's habitual information gathering routines (Fig. 6). Wilson (1977) suggests that everyone maintains a set of habits or routines for keeping his or her internal mental model up to date. Such routines could include for example, scanning the mass media, conversations with friends and colleagues, and personal observation. Although these activities are not directed at addressing specific information needs, useful information is often encountered in this incidental manner.

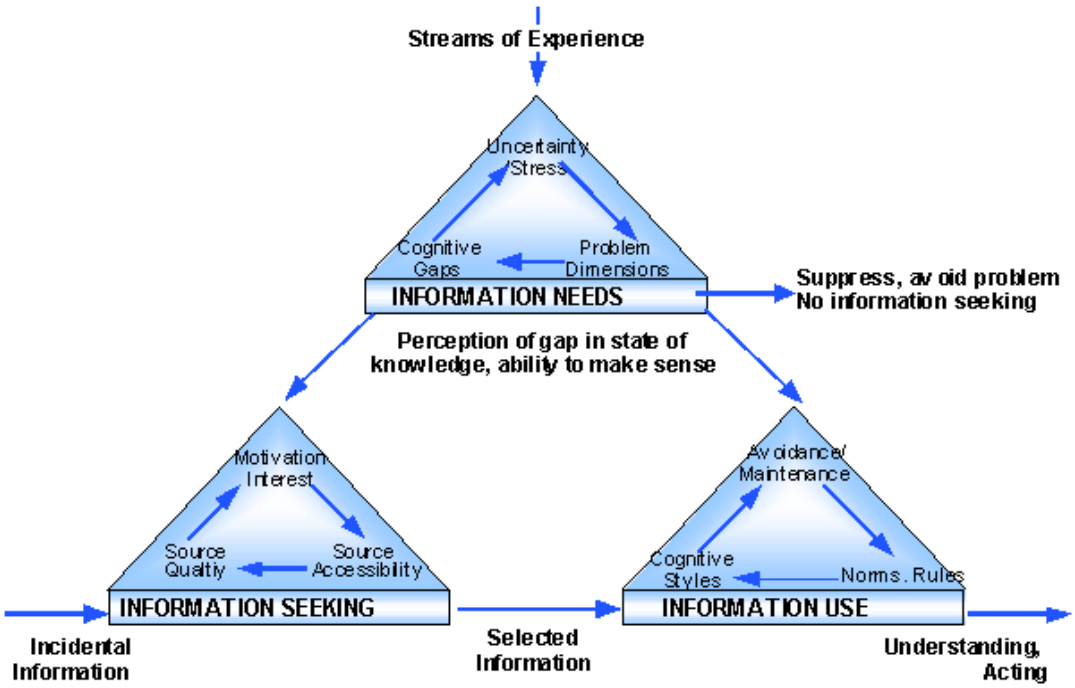


Figure 6. Human Information Seeking: An Integrated Model

As shown in the right-hand triangle of Figure 6, **information use** is the final stage of the model when the individual experiences a change in the state of knowledge or understanding, allowing the individual to make sense or take action. The actions and interactions of multiple individuals and groups generate new experiences. New experiences create new ambiguities and uncertainties, so that the cycle of information needing, information seeking, and information use is always in motion.

When we treat information as an object, we are concerned with how to acquire the information that we need, and how to represent the information that we have in order to enable access and processing. When we treat information as subjective construction, we are concerned with understanding the human and behavioral processes through which information is enacted and engaged. A fuller understanding of information seeking as social behavior helps us to design better information services and information systems. This paper attempts a step towards that understanding.

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Citizenship, Identity and Regional Politics

Inside/Outside

Polarisation of society and the marginalization of certain groups has been a theme throughout the history of information society. It has been a key concept. The question has been who is inside, who is outside? What constitutes citizenship in this emerging society (in emerging societies)? During the 20–30 years which have elapsed since the introduction of ”the information society” in the late 1970s a number of different ways to construct this divide has been put forth.

One of the first divides was the information have’s and have-nots. Those with the ability to search for information would be the information-rich, others without these capabilities would be flooded by information and plagued by social effects, due to the resultant sociological and psychological problems caused by the information flows which they were not able to control or manipulate. Those with a more holistic outlook would be able to process information they would receive from the machines. Others again would search for narrow pieces of information such as how to grow tomatoes or how to collect certain types of stamps. These people would only know how to collect stamps. The general common information available to people by looking at newspapers or one or two national channels or TV programs would be lost.

In these early discourses of an information society the concept of democracy took a very special place. Many authors claimed that as technology would be available, people could sit in their homes and vote for locations of bus stops, priorities on welfare services or the views of their national politicians. Democracy would be enhanced as people could be reached by the messages delivered by politicians and opinion polls could be carried out immediately afterwards. On the other hand, critical authors, among which I include myself, pointed out that the problems of democracy had nothing to do with machines. It was a question of engagement, the relevance of the questions posed and of collective discussions in a society, rather than lonely voters in their living rooms.

In the beginning of the 1980s a second type of divide emerged. This was one between centre and periphery or from top-down as an alternative to bottom-up. Information technology was seen to be a help to scarcely populated areas and peripheral communities. As information would flow everywhere, no one would be disadvantaged and a new life would emerge not only in the countryside but also in small communities. Telework or distance work as it was called at the time was seen as a solution not only to the peripheral areas of Denmark but also in local communities beyond the arctic circle. This, at least, was the vision in the Nordic countries.

The assumption was that local communities would take advantage of information technology and a new kind of balance would emerge between the city and the countryside. The telecottage concept, first introduced by Alvin Toffler in his book The Third Wave, was now put into use. Communities would themselves be able to decide how to use information technology, how it could help in everyday life.

The Danish discourse on information technology in the mid 1980s followed the decision of the Parliament to build a hybrid network (broadband network combined with cable antennas in neigh-

bourhoods), is one example. A number of social experiments with information technology, were granted to local communities around the country. Computers were installed in libraries, schools, medical centres and other common facilities. Telecottages were built up and local populations could come in and free of charge experiment with cost-accounting for farmers, creation of local videos or accounting systems for small businesses.

The results of these experiments were interesting. Although the technology was supposed to be ready, there were a number of technical problems in data transmission. The information society was not technically ready at the time. The second interesting factor was that local needs had to be directed towards technology. There was a technology deterministic discourse. Technology should be used.

Who were the insiders and the outsiders in these experiments? Looking upon the experiment with the categories of Rogers who has studied diffusional technology, farmers (or rather certain type of farmers) and boys between the ages of 9–14 were the innovators and the early users of information technology. They came to the telecottages, experimented with technology and dominated the user patterns. The early majority of users were people who needed information technology in their daily life. Examples were secretaries in local associations who needed to type their notes, unemployed people who came to make their job applications on word processing and technology freaks who were interested in programming and programme testing. The late majority people, who came only after a couple of years, were women, sometimes wives of farmers or small business enterprise owners, who wanted to learn bookkeeping.

Experiments with information technology did not change the concept of information society. On the contrary, the great themes of information society continued to advance particularly since the Al Gore /US initiative on information highways. Again, polarisation is on the agenda. The discourse is about the information society ”for the people”, ”people first” or ”information technologies for the citizens”. Different countries have tackled the problem differently. This is reflected in how the committees working on the concept of information society were constructed. As a curiosity, the European Community’s committee for information society was constituted by 15 persons. Most of them were men in their sixties and represented telecom and industrial interests. The politicians were represented by the mayor of Barcelona and a journalist took care of the media. No women, no everyday life representation.

Citizenship – access or membership

We tend to deal with the concept of information society in a very static manner. We talk about it as one information society rather than as information societies. Traditionally, the means to include people in a information society is related to access to technology. You are inside the information society as soon as you have a computer or at least as soon as you can go to your library and use a computer. You are inside the information society if you can write your employment application on Word Perfect rather than with the typewriter. You are inside the information society is you use the bankomat rather than go to the bank. Finally you are inside the information society if you know how to send e-mail.

Computer hackers will in this respect be a group most inside this kind of information society. People using computers in their work, such as secretaries, working on texts would be more inside than people who are not daily using information technology such as teachers. People who use a bankomat would be more integrated in the information society than those using traditional cheques. The forest worker using an IT harvester would be more inside the information society than another just using a chainsaw.

The early visions of information society, ”the global village” was a vision where information would really float everywhere. It would be available for everyone. Reality has turned out to be not quite so simple. The critical question is information needs. What is your life situation? What kind of information do you need? The traditional picture is a farmer going into a library and asking the

computer for information about tractor wheels. He gets a number of research publications on the screen which are located in different libraries of the world, written in different languages. He is not able to use any of it. In the same way it is not important only how to use e-mail. You also have to have someone to send e-mail to.

In the simplistic discourse of access of the early 1990s the aspects of democracy are also brought into the discussion. No longer as people alone in their living rooms pressing buttons to indicate their political preferences. Now democracy would be taken care of by providing access to computers to all those disadvantaged. The new dimension here consists of providing knowledge and access about civil rights. What are the rights of the individual, what kind of welfare facilities are available, how does one go about applying for social benefits? Again the knowledge needed is not necessarily related to easy access. Information about the rights of citizens is not necessarily a question of access to computers or knowing how to use them.

Here we come to the question of citizenship. The question of citizenship implies more than access to computers, it implies more than knowledge about how to seek information in information systems. Citizenship is about how citizens are able to affect decisions concerning themselves. It is about membership in a political community where those within are able to have common rights, assume responsibilities and expect protection. I would like to quote Marshall for his three types of citizenship.

The first is civil citizenship which implies rights and laws, for example, for property and freedom and the right of justice. The next is political citizenship, which implies membership of a political community and assumes self-determination. The third is social citizenship, where our welfare state gives social rights and seeking to provide social welfare to its members.

Citizenship is conducted in two ways. Internally within the community with rights to self-determination and welfare. Secondly, it is conducted at the borders in relation to questions such as security, protection defence from the foreign, the other. The nation state has been historically the main community for both democracy and membership in a political community as well as one for citizenship. However, the nation's state no longer seems to be the main community. It is crumbling, a number of social groups feel homeless. Globalised economies and global communities are emerging, including global social movements. The question centres around local democracy in a context with global rules.

The future of citizenship is cultural citizenship. The question asked, for example, by Pierre Bourdieu, is how can we democratise culture, how can we involve everybody, all the marginalised groups, in the mobilisation towards the democratisation of national cultures? Given that culture in the post-modern world is fragmented, heterogeneous and provided by symbolic codes, focus may not have to be on the nation but rather on the general distribution of symbolic codes the rights of their production, distribution and consumption.

Technology studies have raised a number of questions of whether citizens are able to participate in a technological society, this would also include the questions related to an information society. A number of new techniques, such as consensus conferences, about new technological innovations where laymen meet professionals and try to agree on what kind of technologies to use and not to use, public hearings, citizens panels and different ways of involving the citizens have emerged. At the same time, criticism has been raised about the so-called "social engineering" approach as where ordinary citizens are organised to have opinions. It is claimed that in a technological society there are not yet autonomous citizens which can freely express their opinions about technology.

Thus, in the post-modern world we are facing a number of challenges which affect citizen survival in everyday life. One is the question of cultural citizenship, the second the fragmentation of post-modern cultures, and the third is how to influence emerging technologies. Today, in relation to the information society, there is no public opinion about this society. Most citizens have not yet taken a standpoint

other than to make the decision of whether to buy or not to buy computers or whether to support their children's learning experiences in computer technology. We have not yet had any public opinion nor any debates about who is going to be marginalised in the future information society, debates which would be reflected in the programmes of political parties or political communities. Nations seems to be unable to take up these questions. Furthermore, they are engaged in promoting the information society as a growth society based on new technology and international competitive advantages. Very little attention has been paid to questions of marginalization in terms of citizenship in the information society.

Given this context, what then are the decisive questions citizenship in the information society life? It is not the information flows nor the access to computers nor the knowledge of how to use them. It is not important how to use information highways or how to enhance information networks. The most important thing for citizenship in the future can be described in three elements.

The first is admission. This is not a question of access to computers but admission to the information society. It is a question of how to get the ticket of entry into the information society in terms of citizenship in this kind of society.

The second question deals with membership. The question is what kind of political communities will emerge and how will membership to these be distributed. The question most critical for the marginalization of everyday life is how to create communities. How does one become a member in a community which no longer is the nation state? Will it be a membership in the region, in a hobby club or in new kinds of communities we cannot even imagine as yet? The Internet is a community open to all, you can try to seek your partners in new ways. Maybe the only thing we can say about future communities is that communities are being created as new technologies emerge.

The third question deals with a question of competence. It's more a less a question of a driver's license in the information society. This no longer deals with how to seek information or how to use the information networks. Rather it is a question of how, as an admitted member in the community, to make your voice heard. This competence is one about interaction, about understanding, and about democratic rights in a new kind of society.

Regional identities as politics

The concept combining all these three aspects, admission, membership and competence is a question of identity. Identity as subjective concept related to time and space. In the Internet it may be seen question of globalized spaces of seeking new kinds of identities in the virtual space. We can all quote a number of examples of how sexual minorities, people with special sicknesses or their family members, or people living in distant corners of the world, are able to maintain contacts. In the net all this enhances membership in different communities whether sexual health related or familial. Internet provides the means to be in contact with each other, to be distanciated and at the same time present. It provides for researchers membership in communities which may discuss the social construction of technology, the crumbling of the nation state or specific problem in molecular biology. New communities are being formed in the globalized virtual space, which influence people's everyday life, their feeling of the self and the way they conceptualize their own subjectivity.

In the past the discourse on identity was run between us and the others. It was about drawing boundaries, understanding who we were in relation to the others. The discourse on identity has changed. Representations and identities have become multi-dimensional and the question is rather how we construct the others, those not belonging to us. The questions have been posed in feminist research, where gendered identities are not facts but rather lifelong constructions and deconstructions focusing on hybrid identities and differences. In a way the Internet is a tool for these identities. You can be a lesbian in one chatroom and a sosiologist of technology in another. You can enhance your

national identity by looking at the news each day on the Internet of your local community while serving the international community abroad. The Internet caters for hybrid memberships, even for memberships where identities can be concealed, hidden and invisible. Virtual communities have been created where people, companies and organizations network through the Internet creating new kinds of links over space and time. New kinds of group presences created in situations where both or all the members may in real time or in space be absent. Virtual communities are being created where things taken for granted in everyday life no longer are valid. You can even be married in virtual reality and live your daily life in new kinds of representations as text in virtual space.

The question being raised and of great relevance for regional politics is the question of regional and local identities. Globalization processes are constructed while everyday life survival is still dependant on local survival. Everyday life is still enacted in local spaces. Membership in information and knowledge-oriented communities are co-constructed with the need to have local contacts, local identities and local interests. While the borders of the nation states are grumbling and integration is taking place, the meaning of regions is growing, for example in the discourse of the Europe of regions. While states are still central actors the regions are enhancing their role and creating new kinds of co-operative models. Not only between adjacent regions but rather in new kinds of spaces. European border regions which were peripherical are now the focus of cohesion as they form cultural language and religious prestige in the future Europe. International competition requires networking not only among companies but also among regions in order to create conditions for prosperity and welfare. This kind of activity becomes a means for the survival in a globalizing world. As the global needs the local – bypassing the state – this means that the border between interior and exterior politics disappears and regions become subjects of their own destiny.

The reconstruction of social space, the global and regional spaces is not without problems. On the contrary, this requires a deep transformation not only in regional identities which do not yet exist, particularly in Finland where democratic government does not exist on the regional level. The regional administration is based on indirect representation through municipalities.This mean that regional identity has to be constructed, it has to be created, it symbols and signs and its language and its concepts developed. The regional identities discourse challenges the dominance of statecentric modern discourse dominantly present (at least in Finland). In this context we also need a discussion of regional information societies, not a regional information society.

Regional identity can be seen as collective interpretation of symbolic cultural meanings and historical traditions of specific community. In the post modern world it is becoming a multilayered spatial identity, where globalization processes co-shape the identity of communities in a regional context. This identity is by no means unaffacted by new technologies and concepts of information society. On the contrary, networking, crossing of spatial borders in different ways and the creation of “knowledge communities“ are combined with processes where citizens shape new technologies and the way information society, in their spatial context, is constructed.

What can a regional administrator do in this process? Without becoming a social engineer who is manipulating not only the uses of technology but also the creation and distribution of identities?
In North Karelia we are in the process of consciously trying to create an information society, which allows for membership to all and also provides new competencies, not only in the use of technologies but also in interactive processes. As a tool we have created the NOKIS-platform, an arena for regional actors to participate in the construction of not only user friendly applications of the Internet but also in the creation of regional politics for the information age. Citizens groups (women groups, village groups, youth groups) have met, talked about their views on technology and the future of region, designed experiments and implemented them. Village groups are making home pages, communicating with other villages and defining, in the process, their local identity. Women are engaged in, a research oriented, everyday life analyses to define their uses of the Internet, while a pecial pedagogical team is looking at how learning of competencies to master technology in everyday life can take place.

The “Learning Upper Karelia“ is a large scale experiment in the use of the Internet in schools, open facilities, local libraries. It is a pilot also for the Finnish strategy for citizen oriented information society. Already a 20–30 % of the population is on line on their own terms. This a population living in distant sparsely populated communities, where unemployment reaches 20–30 % and where forest workers have been displaced by forest machinery.

The experiences, ideas and proposals have been gathered in a regional strategy for NOKIS which will be implemented in the next 3–5 years. This work is done in the context of the Europe of regions, where within the EU’s RISI network regional information societies are being developed and tested.

Will all this create new concepts for citizenship and new types of communities where citizenship may be enacted, will it shape technologies in new way and what will be the consequences for spatial identities of the future? While there are no answers, the construction processes are under way.

Markku Markkula, MP (Finland)

The Finnish Way to the Knowledge Society

The possibilities technological development offers to teaching are immense. In order to exploit these possibilities we must take technology to use without prejudice, but it is even more essential that we deepen our understanding concerning learning. However, even this is not enough. Lasting results can be achieved only when these changes in teaching and learning are extensively connected to the development of working life.

Finland is a small nation of only five million people. Only through recent EU and EMU memberships is Finland starting to have a role at the core of international influencing. Our international contribution is of course modest, but with national purposefulness Finland can be a forerunner in many societal transitions. Finland can develop methods and create models, through which a user-friendly information society progresses in a desired way. My presentation is based upon the guidelines set by the Parliament concerning the way of the future Finland has chosen. I will also introduce these guidelines and their backgrounds. The picture portrayed through those is naturally the one seen from my own experience and perspective.

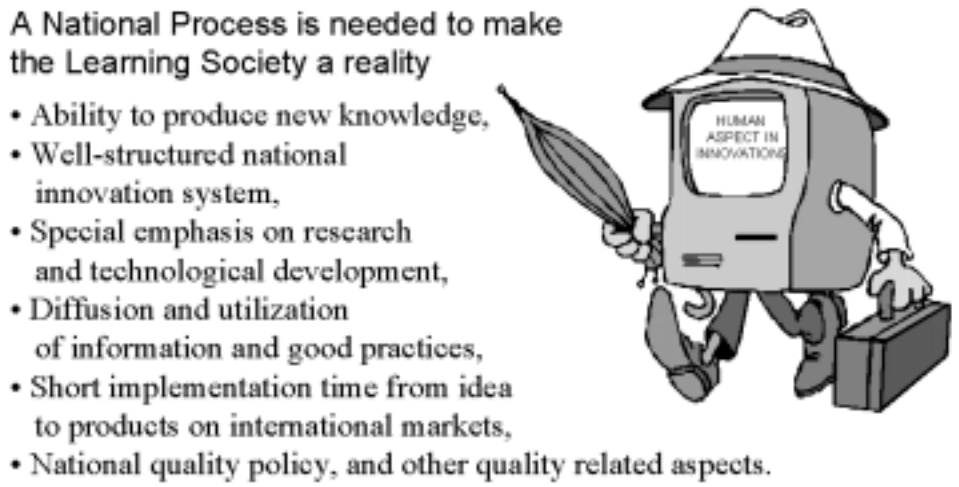
Development Trends

Skill, innovation and stability are among the keys to growth in today's developed economies. A shift from investment-driven growth to growth driven by innovation and based on human resources began in Finland in the mid 1970s. The shift was accelerated by various external factors, beginning with the first oil crisis. An essential internal factor was the decision to increase investments in research and development, as well as in education. The investment rate has remained high for many years. The recession in the 1990s was the last symptom of the transition.

A crucial prerequisite for the national success story has been the sense of participation in a common future shared by all citizens and social groups, giving rise to an experience of taking part in 'meaningful endeavour'. Another important element in the successful post-war transition has been the emergence of a climate confidence, which encouraged citizens to take risks in life and reduced resistance to change – the Finnish people are not by nature opposed to change.

The Finnish Parliament has in October 1998 responded to the Government's report on the future prospects for Finland. The decisions include the following statements:

1. Steadily increase the resources available for **research and development** from the year 2000 on. At the same time, seek to increase the returns from such investment.
2. Lead the transition to an information society, seeking a role in the European Union as an **"information society laboratory"**. Use the information society as a tool for increasing Finland's human and social capital.
3. Introduce a system of **lifelong learning** encouraging skills enhancement and mobility during the entire individual life cycle, in business policy, emphasize quality, education, management skills and personnel development.



The political perspective of the Committee for the Future is very interesting: When Finland is striving to become the EU s information society laboratory, it can rely only to some extent on the doctrine and support gained from the EU. Finland is a forerunner in many matters and as a small flexibly renewing country it has good possibilities to succeed also in the future keeping humanity as a basis and the whole world as the field of operation.

Parliament of Finland: Success in the Future Depends on Ourselves

The Parliament of Finland has wished to assume an active role in the discourse on the future of the nation. It has obliged the Government to submit a report on the future once each parliamentary term. In it, the Government defines its perception of the country's future and of the measures that will be needed over a time span of 5-15 years. The Parliament has appointed the Committee for the Future to prepare the Parliament's reply to the Government's report. After the discussion and decision by the plenary the report becomes a resolution of Parliament binding on the Government.

The globalising economy demands tough competition and a high level of expertise. The nation must ensure its ability to cope with competition. Welfare cannot be maintained without sufficient economic resources. But welfare is not just economic success. It is a broader concept. In order to succeed, individuals and society must fresh-mindedly make forward-oriented choices. They must strive to be in the vanguard of development in sectors where they possess strengths.

The Committee for the Future has outlined the factors on which future success will be based and proposed measures intended to enable us to grasp the helm of the future. The following four all-permeating success factors, as well as measures based on those, were approved by the Parliament.

In the view of the Committee, **globalisation**, internationalization are prerequisites for the success of the knowledge society. We must prepare for internationalization and make use of its benefits on every level of society. Companies, institutions of learning, political parties, civic organizations, labour-market organizations and other interest groups must all make their own contributions to developing their international aspects.

In the view of the Committee, **information and knowledge** are fundamental factors in future success. Prerequisites for successful endeavours include mutual trust between skilled personnel and other actors in various sectors, cooperation and purposeful networking. By networking we can improve the new strengths developing in Finland and the clusters based on them.

In the view of Committee, **innovations** in the services, industrial and administrative sectors are essential for the success of the individual and society. Culture as a source of creativity lays the groundwork for innovations. Innovative activity and networking are particularly important in education and work life. Innovation does not come from nowhere. The culture in which activities take place must support fresh-minded thinking and a search for new ways of doing things.

In the view of the Committee, **good governance of life and affairs** plays the key role in present era of strong transformation. The changes that are taking place represent above all new challenges and opportunities for every individual, every company and every community as well as for the whole of society. They must be predicted and steered in the desired direction. To a greater degree than in the past, citizens' own activity will determine the immaterial quality of their lives. Lifelong learning must be adopted as the strategic foundation for Finland's national success.

The report of the Ministry of Finance "Benchmarking Finland" evaluates Finland's competitive strengths and weaknesses. In the report it is summarised that Finland's main strengths lie in an advanced high technology environment, a high quality communications and information technology infrastructure, internationally competitive rates of corporate and capital income taxation and a high educational level for the younger generations. The report also states that substantial investments have been required in many fields; in a number of sectors, such as education and innovations, the results are only beginning to manifest themselves now. The report also introduces plenty of challenges and fields of development.

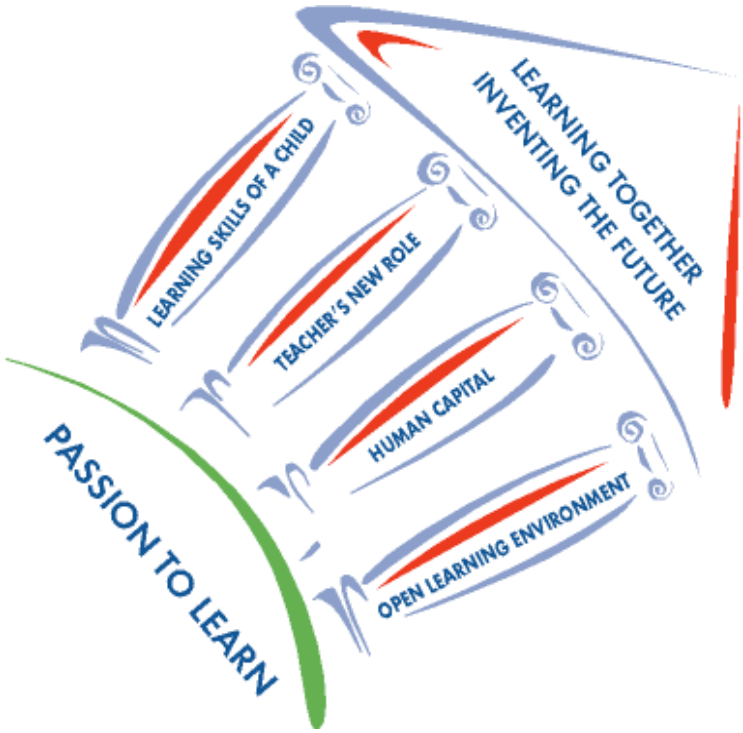
National Strategy for Lifelong Learning

To concise vision points out that knowledge and know-how are essential cornerstones of our national culture. The vision emphasises learning as a source of joy, skills as a source of strength and cultural policy as the basis for the future. These are all vital to Finland's ability to cope with today's pressures of change and to its success as a nation among nations.

I have often described our national strategy of lifelong learning as a strategy of change with passion to learn as the orientation and value basis. The basis of learning lies in individuals and communities within which the individuals act. No one can learn on behalf of the others, but learning with others is often faster, more meaningful and creative than learning by oneself. This is the reason why in the picture the four pillars are placed on the principle of passion to learn. It is the initiative force generating change and development, the key factor without which learning is indifferent and lukewarm. The four pillars are briefly described as follows.

The most fundamental pillar of lifelong learning is the promotion **of the child's learning ability** and willingness to learn. It is the very childhood that the learning principles and attitudes are adopted. In order to improve and renew the child's possibilities to learn the changes have to be targeted primarily at the adults of today.

The teacher's new role, as a facilitator of effective learning, is the second pillar of lifelong learning. It involves a total change and reform in the role of people working in teaching jobs. The old-fashioned teacher-learner relationship should be replaced by the combination of outmoded master-apprentice relationship and modern tutor-mentor activity.



Human capital constitutes the third pillar of lifelong learning. Knowledge and know-how have become a more important factor in pursuit of success than raw materials and other materialistic aspects of production. Innovativeness, network co-operation based on mutual confidence, and purposeful enhancing of human capital are central factors in assessing the foundations of success of individuals, companies, different communities and the whole of society.

A fully open learning environment is the fourth pillar of lifelong learning. As regards all citizens it is important to develop diverse forms of communication and information suitable for learning and teaching and at everyone's disposal. Nation-wide networks can operate flexibly as an interactive learning process, in which individual citizens and learning groups communicate with local teachers through distance teaching.

Parliament Guidelines for the Action

The Parliament and the Government have decided to create lifelong learning to be the cornerstone of Finland s success. It is essential for all of the citizens that we develop different forms of communication and telecommunication so that they are suitable for the teaching and learning of different kinds of people and are available for all.

The slow development of contents created or conveyed with new technology has become a problem in the development of information society. The Parliament has therefore chosen the production of learning material contents and the development of pedagogics and learning environments of network

aided learning forms to be a focus of the national information society strategy. There has to be considerably higher investments made to the quality and quantity of the continuing education of teachers so that each and every teacher can answer the challenges of the information society development.

The Parliament emphasises that with governmental funding policy we must encourage all of the information and telecommunications operators and educational institutions to networked co-operation. Through this we can achieve high-quality virtual teaching networks all over Finland and at all levels of education in the near future.

Despite of problems the existing educational institutions are gradually forming into networked learning centres. The role of libraries is changing into education maintaining and learning aiding media centres. The Parliament has speeded up also this development for example with the new library law. The Parliament made an amendment to the government bill: It is the goal in the library functions to advance also the development of virtual and interactive network services and their high level contents.

Learning and working together as a true and extensive understanding of others is a challenge for everyone. This deep concern can be expressed as an extensive basic matter.

Jean-Louis Armand, Professor (France)

Towards Universal Access: At What Price?

The Internet can have great social and economic benefits for the future, as It is expected to help stimulate economic growth in our global economy and help promote more equal opportunities by relieving the constraints of Geography. Its penetration is generally encouraged by governments, resorting to various incentives. Many observers contend that there is a growing social gap between those who own computers and have access to the Internet and those who cannot afford either. Access to e-mail, for instance, is available almost exclusively to the affluent and educated within a given country. Within the European Union, it has become a fact that some countries have achieved a far higher penetration of the Internet within their population than some others, thereby enjoying benefits which are not easily accessible to others.

The question arises of whether some legislation should be put in place which would publicly subsidise universal access to information technology, just as past government-led efforts to provide universal telephone and postal services brought benefits to the communications industry, or to oppose universal access schemes, arguing that government regulation will stifle the innovation and competition among communication service providers that will eventually provide affordable access to all.

The recent emergence of new information services with strong if not exclusive emphasis on entertainment may in fact allow a new segment of the population to access information technology as communications companies may find it profitable to exploit that particular niche, perceived as commercially extremely promising. This is reflected in the current trend to make the Internet easier to use and seemingly much more attractive in content, in response to what is perceived as popular demand, a concept actually quite different from the original perception and purpose of the Internet.

This evolution raises a serious moral issue, which shall be addressed in the light of normative ethical guidelines.

Aidan White (UK)

The Citizen and the Global Information Society

Introduction

At the heart of European Union policy on the use of new information and communication technology is the thought that information is not just an ordinary product: it has a cultural dimension essential to the preservation of social and democratic values in Europe. This idea is well reflected in numerous Commission declarations and discussion papers such as Living and Working in the Information Society: People First, issued in 1996, and Networks for People and Their Communities, the first annual report of the Information Society Forum. But many citizens, both as consumers and users of computer-based products, remain unconvinced by the rhetoric of policy-makers and industry leaders. This lack of confidence is not based entirely on ignorance of the process of change, it reflects a profound unease among citizens about a growing social and democratic deficit in modern Europe. The gulf between the haves and have-nots of society continues to widen as unemployment increases; there is a sense of isolation from national political structures; and there is widespread pessimism about the future. It need not be so.

The information society has the potential to be a force for liberation, improving the quality of life and leading to a renaissance in our cultural experiences. The opportunities are numerous. New technologies, used wisely, have the potential to:

1. reinforce and strengthen the rights of all by providing instant access to a wide range of public information, entertainment, retail, education and health services;
2. increase the capacity of citizens to participate in the process of decision-making and to oversee the affairs of government, both locally and nationally;
3. empower people to become active producers of information rather than passive consumers and to promote closer relations between consumers and producers;
4. provide the means for enhancing privacy and anonymity of personal communications and transactions;
5. enhance job opportunities in new forms of work.

But these advantages are not guaranteed. They will certainly not be achieved if policymakers brush aside peoples' concerns. What is needed is a new comitmment to address the flesh- and-blood realities of modern life, which makes the information society people-centred, and which creates new reserves of confidence, both among consumers and within the business community itself. Setting the Agenda For Change Looking at the information society through the eyes of the citizen there are four distinct challenges for the architects of change:

1. to create a legal framework which enhances and protects existing democratic rights (privacy protection, democratic structures, etc);
2. to establish practical rules of engagement which will encourage people to use new technologies (quality content, easy access and reasonable tariffs);
3. to promote awareness of the real opportunities available for the citizen (work, education, health, the environment, new services, etc.);
4. to ensure that products and markets meet the highest standards to satisfy consumer needs (intellectual property, common technical standards, choice of products and services etc);

Addressing these issues from a European perspective means that we must recognise the global nature of change. The world market for new information and communications technologies is enormous – involving more than ECU 1,750 Billion of world-wide revenues in 1996.

This is very big business. But big is not necessarily beautiful. There is unease among many that Europe's greatest strength – the richness of our diverse language, arts, style, and community – is being eroded by the dominance of the mono-cultural market players of North America. Four of the top five global corporations in the field of information and communications are from the United States alone.

As a result our entertainment and youth cultures are increasingly shaped by the imperatives of a philosophy which holds that knowledge, education, and public information services are regarded, first and foremost, as commodities to be bought and sold according to market needs. Europe's traditional beliefs and values are under intolerable pressure. How can we protect and enhance our cultural heritage without imposing trade restrictions? We must address, too, the risk of social exclusion. People from rural areas, consumers with disabilities, those living in poor social and economic conditions all face being sidelined in the information society. To date the use of the Internet is dominated by an essentially educated, middle-class, professional and male constituency of users. Where are the new jobs coming from? And when they arrive can we ensure that they will not create a new culture of social isolation? At the core of citizens' concerns remains the question of cost – how to make access, both to the information services and the technical means, affordable to everyone.

Europe needs substantial levels of public investment at both national and regional level to ensure that basic services are within the reach of all sections of society. The financing of public service obligations is essential as is the need to stimulate new and innovative services from the business community. We also require services and products which are reliable and useful, but how do we guarantee standards necessary to ensure quality information is provided through reliable systems of communication? How do we encourage the small business sector to fill the gaps being left by the transnational conglomerates? How do we encourage a meaningful dialogue between consumers and private enterprise in order to promote confidence? Electronic shopping is an exciting prospect, but transactions need to be confidential and secure. This requires not only a technical infrastructure that works, but also a simple and friendly interface. These are some of the issues and problems.

Solutions can be found and, indeed, some are already available, such as digital signatures and encryption. But action and awareness are lacking. Policy-makers and other players can help by addressing the simple, practical and genuine fears which have so damaged public confidence in recent years. Political will is essential, but on its own is not enough. The Commission needs to mobilise the existing extensive network of voluntary organisations at national and regional level which can provide the means to raising awareness on the benefits of the Information Society. One challenging way forward is to prepare a clear statement of citizens' rights which can be used as a benchmark by which public policy and information society structures can be judged. Such a statement, in line with the recent Commission Call for an International Charter and coupled with practical confidence-building measures, can nourish the process of change and give meaning to a vision of humanity within the information society.

Jan Ekberg, Professor (Finland)

Session: Telecommunication and Access for Disabled and Elderly People

In the introductory speech professor Jan Ekberg (jan.ekberg@stakes.fi) noted that there is a lot of information about how to make telecommunications and Internet services accessible also to disabled people and elderly. Some big data bases like http://www.stakes.fi/include and htto://www.stakes.fi/cost219 were presented. He said that accessible good design does not cost more than bad discriminating design.

In the presentation ”Situation today, is there real hope for accessibility?” doctor Jan-Ingvar Lindström (Telia Sweden) showed that an elderly has bigger difficulties with coping with modern technology. He also showed different solutions that made telecommunication and Internet easier to use and also more useful to users like disabled users. He also pointed out that according to the United Nations Standard Rules Paragraph 5 the states should make telecoms accessible also to disabled and elderly people.

”Developing an Accessible Information Society” means as professor Pier Luigi Emiliani (IROE Italy) pointed out that – we should either redesign the interfaces or we should adapt the interface (should have flexibility in the terminals so that it can adapt itself to the capacities of the users. He presented such design tools that can automatically carry out the task. He noted that Political support is needed if we want to have a information society that also takes disabled and older people into account. The free competition will not do it.

The promise of the information society was analysed by Kevin Cullen (Work Research Centre Ireland) He said that:
– availability
– accessibility
– affordability
– awareness
– appropriatness
have all to be in place before a service is taken up.

During the discussion it was noted that we should:
* promote design for All, involve end users like disabled and older people in the design work.
* assess social implications
* improve Information Society Skills of the users, stimulate industrial awareness, and ensure universal services in telecommunication.

As a conclusion it could be noted that about 2 % of the politicians who attended the conference were interested to see how the infrastructure for the Information Society could be made accessible also to less favoured groups. There does not seam to be an awareness that future social expenditures can be avoided if we from the very beginning require an accessible, non-discriminating Information Society. And that this requirement does not cost us more to implement.

Tuula Helne, Researcher (Finland)

Session: Exclusion and the Information Society; Information for Some, Exclusion for Others?

Is living in the information society a blessing or a curse? Will eventually the lives of most people be enriched, or will exclusion increase? The answer depends partly on how we understand these two concepts. *Linda Phipps* (University of Leeds) discussed their definitions, but as we know, all definitions will remain controversial. *Jouko Kajanoja* (Government Institute for Economic Research, Helsinki) also pointed out that no reliable and valid research evidence for finding the answer could be found. So, in this session no final answers were given (also due to lack of time). However, as *Susanna Bairoh* (Helsinki) pointed out, the information society is a political projet; what we need is a critical discussion of its premises and aims.

The discussion about information society is divided between utopias of fear and utopias of hope. In other words: the new information and communication technologies (ICT) can be seen as ”connecting people” or as creating a ”world wide wedge”.

According to *Indrek Tart* (Tallinn Pedagogigal University) postmodern nations (understood in R. Inglehart’s manner) benefit most from the ICT. Placing the world-wide wedge can, however, be rather complicated. Susanna Bairoh took a look into Kurd’s utilisation of satellite TV and the Internet, and used this example to counterbalance the view she found in EU Commisson documents according which ethnic minorities are only passive objects in the building process of the information society.

Susanna Bairoh also made a list of the people who were seen in the EU document as being in danger of exclusion: the disadvantaged, people living in isolated rural communites or deprived inner city areas, the elderly, the disabled, women, the unemployed... She went on to ask with reason: who are the included, then? To put this in other words: who are the ”connected”?

Obviously they are likely to be well-educated, well-to-do males in well-to-do nations and regions or in the most developed regions of the so-called developing nations. Although all innovations are at the beginning the property of a small minority, it may be good to keep in mind that around 80 % of the world’s population still lack the most basic telecommunications. One could even ask whether it makes any sense to speak about ”information society” in this context? *Byoma Tamrakar* from Nepal pointed out that the discussions of the congress are indeed not very relevant as far as her country is concerned: 42% of the people live below poverty line, or more bluntly: people are starving. *Matti Penttilä* (Technical Research Centre of Finland) stressed that the building of the information society must be connected with the idea of sustainable development. We must think globally: one cannot talk of merely ”Finnish” sustainable development, nor merely of ”Finnish” information society.

Another criticism of the information society is that we can hardly talk about information, at least not in the meaning of ”knowledge”; instead we are submerged by an unseen flow of trivia. If one is excluded from it, so what? There was a general understanding in the congress that the inclusion of all groups into the information society must be made possible. It may, however, also be important to

ponder on what it is that we want to include people in. Also Jouko Kajanoja referred to this in his presentation: the examination of social exclusion should not be focused only on the excluded but on the whole society.

There are grounds for optimism. Linda Phipps listed numerous examples of successful British iniatives that have created avenues for inclusion of excluded groups and communities and have enhanced their quality of life. Also Matti Penttilä described the tremendous ”opportunity structures” and the positive impact on sustainability that the information society has to offer – on the condition that the ICT are applied in rational and democratic ways.

Henry Haglund, Head of Unit (EU; Finland)
European Commission, DG XIII

The Finnish Information Society Approach in the European Context

1. The Finnish IS Strategy Approach

Finland has been succesfull in launching an impressive array of measures and strategies to establish and maintain a scientific and technological potential. Finland has in particular reached advanced levels of development, implementation and diffusion of telecommunications systems and telecommunications based services.

Former milestones of this development are described as example in the OECD/ICCP Country Review: Information and Communications Policies: Finland, published in 1992. Later, in form of Information Society strategies published deliverables have followed in 1995 and 1998. The most recent publication is: Quality of Life, Knowledge and Competitiveness – Premises and Objectives for Strategic Development of the Finnish Information Society (1998).

The cornerstones of this initiative can be summarised as follows:
- development of the Information Society should be clearly based upon the people's need; high-standard know-how and utilisation of modern information and communications technology are essential elements
- the Information Society evolves in a decentralised manner, and it is neither possible nor necessary to coordinate it; some centralised measures are still needed
- owing to the rapid pace of development, the strategy has to be constantly revised
- the importance of co-operation between sectors and administrative fields in Finland and in the international context.

The goals in the Finnish Information Society initiative are stated as follows:
- to ensure welfare, employment and level of income for the citizens
- to ensure equal opportunities
- to ensure conditions for entrepreneurship, quality of working life and to promote competitiveness
- to provide opportunities for human interaction and cooperation
- to strengthen democracy and provide opportunties for social influence
- to improve security, individual's data protection and the citizen´s status as consumer
- to develop services, provision of culture and international interaction
- to ensure Finland's attractiveness as a location for innovative enterprises
- to promote equality between regions
- to support sustainable development.

A specific set of spearhead projects are identified:
- production of cultural and information products and services
- development of electronic transactions and service processes
- support for personal network navigation
- learning environments in information networks

– development and promotion of knowledge intensive work
– business networking and teleworking
– development of local information society.

It is strongly highlighted, that these objectives and goals can be achieved only by intensive cooperation of the key players; individuals, business and industry, and the public sector.

The Finnish national vision has been, accordingly, formulated:

Finnish society develops and utilises the opportunities inherent in the Information Society to improve the quality of life, knowledge, international competitiveness and interaction in an exemplary, versatile and sustainable way.

This is no doubt a strategy setting with a very wide scope. It can be stated that the strategy premises and objectives include, well balanced, the elements regarded presently as key issues in Information Society development and promotion. In particular, strong priority is given to the socio-economic dimension.

This is well justified in a country with a modern well functioning technical ICT infrastructure, harnessed through competition not only abroad but also in the domestic marketplace. In addition, the Finnish environment is, in international comparison, extremely open for new ideas and opinions to emerge and flourish. The remark about Finland as a forerunner is especially valid when the provision of outstanding opportunities for making Information Society a reality is evaluated. However, Finland is not always the forerunner in taking advantage of opportunities available.

2. Measures and Actions Taken by the European Union to Establish the Information Society in Europe

National and international measures and actions to develop and promote Information Society may be grouped in three categories: (1) research&development, (2) regulatory actions and (3) awareness raising and promotion. These categories are visible in the following outline:

Some historical milestones

The measures and actions taken by the European Union and in particular the initiatives of the European Commission can be presented in a nutshell as follows:

1 The Jacques Delors White Paper

The White Paper on Growth, Competitiveness and Employment (1993) strongly introduced the concept of Information Society as a set of opportunities with a wide scope of benefits for the Europeans in terms of employment and competitiveness. The rich European cultural heritage was especially pinpointed as a source for content production.

2 The Bangemann Report and the Information Society Action Plan

The high level group of European industrialists, under chairmanship of commissioner Martin Bangemann underlined the importance of telecommunications sector liberalisation, interoperable European network infrastructure and in addition identified a set of especially important application areas. Moreover, it was stated that the private sector, market players, are directly responsible for necessary investments.

As a reaction to the Bangemann Report the European Commission produced an Information Society Action Plan to accelerate the realisation of the Information Society in Europe. As part of the Action Plan the European Information Society Forum (ISF) and the Information Society Project Office (ISPO) were established.

3 Research and Development Programmes

In many of the European Union R&D Programmes issues related to Information Society development have played a key role. Especially programmes like ESPRIT, ACTS, INFO2000 and Telematics Application Programme have been essential. In addition, Information Society related issues have been strongly present in support through European structural and social funds.

4 Regulatory actions

The regulatory measures of the European Commission have been essential in setting a new competitive and liberalised European scene for ICT infrastructures and application and service provision.

Recent and ongoing measures and actions

Ist (information society technologies) – a European research programme within the 5th framework

The strategic objective of the Information Society Technologies (IST) Programme is to realise the benefits of the Information Society for Europe both by accelerating its emergence and by ensuring that the needs of individuals and enterprises are met.

Taking into consideration the thorough preparation of the Programme, it can be assumed that the selected key actions reflect well the present European priority setting and understanding of Information Society development and promotion needs.

The IST Programme key actions are the following:

1 Systems and services for the citizen

The aim is to foster the creation of the next generation of user-friendly, dependable, cost-effective and interoperable general-interest services, meeting user demands for flexible access, for everybody, from anywhere and at any time. Specific work areas cover (1) professional health care and personal health systems, (2) providing support to citizens with special needs, including the disabled and the elderly, (3) administrations to provide on-line support for the democratic process, access to information and services, (4) environment, and (5) transport and tourism.

2 New methods of work and electronic commerce

The aim is to develop Information Society technologies to enable European workers and enterprises, in particular SMEs, to increase their competitiveness in the global marketplace whilst at the same time improving the quality of the individual´s working life. Specific work areas cover (1) flexible, mobile and remote working methods and tools, (2) management systems for suppliers and consumers, and (3) information and network security and other confidence-building technologies.

3 Multimedia content and tools

The aim is to improve the functionality, usability and acceptability of future information products and services to enable linguistic and cultural diversity and contribute to the valorisation and exploitation of Europe´s cultural patrimony, to stimulate creativity, and to enhance education and training systems for lifelong learning. Specific work areas cover (1) interactive electronic publishing and digital heritage and cultural content, (2) education and training, (3) human language technologies and (4) information access, filtering, analysis and handling.

4 Essential technologies and infrastructures

The aim is to promote excellence in the technologies which are crucial to the Information Society, to accelerate their implementation and broaden their fields of application. The work will address the convergence of information processing, communications and networking technologies and infrastructures. Specific work areas cover (1) technologies for and the management of information processing, communications and networks, including broadband, together with their implementation, interoperability and application, (2) technologies and engineering for software, systems and services, including high-quality statistics, (3) real-time and large-scale simulation and visualisation technologies, (4) mobile and personal communications and systems, including satellite-related systems and services, (5) interfaces making use of the various senses, (6) peripherals, sub-systems and microsystems, and (6) microelectronics.

Promise (multiannual community programme to stimulate the establishment of the information society in Europe)

The objectives of the PROMISE Programme (1998-2002) are the following:

1 Awareness raising

The aim is to increase public awareness and understanding of the potential impact of the Information Society and its new applications throughout Europe, to stimulate motivation, and ability to participate in the change to the Information Society.

2 Optimisation of benefits

The aim is to optimise the socio-economic benefits of the Information Society in Europe, by analysing its technical, economic, social and regulatory aspects, by appraising the challenges raised by the transition to the Information Society, inter alia as regards employment, and by promoting synergy and cooperation between European and national levels.

3 Global visibility

The aim is to enhance Europe´s role and visibility within the global dimension of the Information Society, including exchange of information with third countries and collaboration in the preparation of demonstration actions, either bilaterally or in collaboration with international organisations.

Examples of other recent priority settings and actions

Within the European Commission a large number of Information Society related intiatives have been launched. The following examples represent some of them, which especially reflect the present setting of priorities.

1 The Information Society Forum of the European Commission

The Working Group structure of the Forum reflects the priorities set by the Forum:

– WG 1 / Employment and Job Creation
– WG 2 / Social and democratic values, culture and the future of new services and the media
– WG 3 / Universal access and consumer protection and support
– WG 4 / Sustainability in an Information Society
– WG 5 / Public services: bringing administration closer to citizens
– WG 6 / Lifelong learning.

The Forum, especially WG4, has recently been active in formulating a Model Europe – European Vision for Global Governance, a New Social Contract, Sustainability and a Better World.

2 Recent other Information Society related documentation

The following examples reflect as well the recent setting of priorities:

– Green Paper / Living and Working in the Information Society
– Green Paper on the Convergence of the Telecommunications, Media and Information Technology Sectors, and the Implications for Regulation
– Communication from the Commission / Globalisation and the Information Society – The Need for Strengthened International Coordination.

In addition, electronic commerce and Internet regulation are issues that have earned a lot of interest and debate.

3. Conclusions

Information Society development and promotion may take place on several levels: local, national, European and global. The European Survey of Information Society (ESIS), a project led by the Information Society Project Office (ISPO) of the European Commission and the Global Inventory Project (GIP), a G7 countries joint initiative, provide information about national strategies, main projects and other Information Society related initiatives and actions. This material is accessible through the ISPO Web site (www.ispo.cec.be).

As a general rule it seems that the issues included in national strategies and programmes do not differ very much from each other. Naturally there are differencies in priority settings but agendas are still much alike. It seems that the list of “hot issues” is rather well known all over Europe.

However, the vital issue is the success in putting the strategies and programmes into action. These concrete action plans have to be prepared individually taking into account the local/national circumstances. Information exchange, learning from best practices and experience achieved elsewhere are important and provide valuable working material for consideration, but do not necessary ensure success.

The recently published new Finnish Information Society strategy – or premises and objectives for strategic development – is well in accordance with the main lines of present European thinking and guidelines. Seen from the Commission point of view there is a specific interest to learn how the spearhead projects will be established and managed and what kind of results they will provide.

4. ISPO Information Service

For additional information about Information Society development and promotion in Europe, the information services of ISPO are available: **www.ispo.cec.be.**

Mika Mannermaa, Researcher (Finland)

Internet, Information Society and New Societal Movements

The aim of this session was to discuss the role of the Internet in societal change processes in the information society. What are the attitudes of people towards the Internet as a tool of social change? What ideological tensions are created by the information society, what kind of new societal movements may be born, and how do they use the Internet in their activities? The role of the Internet at the level of communities, and the idea of virtual communities as new means of organising information and offering services were also on the agenda of discussions. The following presentations were given:

Mannermaa, Mika: QUANTUM JUMPS TOWARDS THE KISS SOCIETY?
Margolis, Diane: USE OF A E-MAIL IN A COHOUSING COMMUNITY
Adamczak, Wolfgang: INTERNET, SCIENCES AND DEMOCRACY
Peltoniemi, Teuvo: TELEMATICS AND VIRTUAL REALITY AS TOOLS TO HELP WITH PROBLEMS AND AS CAUSES TO PEOPLE'S PROBLEMS – A PERSPECTIVE FROM SUBSTANCE ABUSE AND MENTAL HEALTH SECTOR
Chroust, Peter: NAZIS AND TALIBAN ON-LINE.

New societal movements can be expected to be born from the tensions of the information age, like globalization as a societal phenomenon, information as the key strategic resource (eg. "Should it be socialized or not?"), information society as a deep class society, etc. From the discussions of the session one could conclude that it is not very easy to identify these new societal movements and tensions. It seems that especially in the highly developed Western countries, which are transforming themselves into the era of information, many technological, economic and social innovators are coming from the periphery of the societies. New Internet enterprises, small media and software companies, and new social movements outside the representative institutions will shape the development of the future.

Internet in itself is a marvellous example of how self-organizing processes are streaming all over the world very much independently of what parliamentary decisions and legislation might want to say. Internet is a 'Wild West' in good and in bad.

Mikko Valtasaari (Finland)

Parliaments and Internet

As of now the parliaments have opened internet sites in order to provide public access to their records and to facilitate communication between the voters and their elected representatives. The technology is new and we can only speculate how it will finally affect parliamentary democracy and politics in general.

In the session two parliamentarians one political advisor and three technology experts discussed these matters.

Berndt Mulder, information technology advisor of Dutch second chamber pointed out that, in a few years time, rapidly growing capabilities to handle and distribute information will change the nature of parliamentary decision making. As of now research and parliamentary decision making are conducted in different institutions and based on different sets of motives. Due to the ample availability information new of structures and standards of evaliation need to be developed to ensure that this leads to well informed political action.

The information society will also introduce new ways to conduct dialogue between political decison makers and their constituents, bring about new forms of participation in the political process and affect values.

This will mean changes in power structures. According to Mulder the information society requires democracy, but democracies are different and might in some cases have to be reinvented.

Hans-Peter Neumann, information technology advisor in German Bundestag told that the German parliament went to the net on 1996. The service provides to the public an extensive access to the process and documentation of parliamentary business, a feedback mailbox, which now receives an average of 13 messages a day, and regular sessions, in which people may debate with representatives.

As a mean of interaction the Bundstag favors e-mail. It has a mailing list of 30.000 citizens who recieve selected parliamentary publications and sends the session live in the net. The net had 27 million visitors last year.

Chris Casey , information technology advisor in the U.S. Senate told that the home pages of both senators and congressmen are now commonplace. Senator Edward Kennedy was the first to open the page in 1994. Now 99 senators and over 400 congressmen have their pages and the voters expect to be able to replace ordinary mail by e-mail while writing to their representatives on Capitol Hill.

E mail is a practical way to contact one’s own representaive but it also opens the way to send messages to the whole Congress with little cost and effort. American congressmen and senators want to answer the mail from their constituencies but not the spawn mail. One way to separate the senders is to use posted messages.

Recently the Starr report on Monica Lewinsky investigation was posted on several Goverment web sites but not on that of the senate. However, it raised considerable interest to government web sites and might have introduced them to new users.

The senators and the congressmen also use the internet for chatting sessions and to post information on chosen themes, which are relevant politically or otherwise.

Mr Kalevi Olin, MP, from Finland described the experiences of experimental live netcast of a parliamentary session. It took place on the intitiative of the Committee for the future of the Finnish parliament.

He then reminded that politics is based on social and human contacts. The new technology can't remove the need to use appropriate time to prepare opinions, nor can it replace persuasion and face to face talk as main ways of influence

Mr Olli Korhonen, advisor of the MEP Riitta Myller, recalled the vision of Machiavelli about the knowledge of the few giving power over many. The issue is whether the new technology actually adds the knowledge of many or keep it to the few.

Having joined the European Union Finland has had to learn to conduct politics in a new institutional context. Within the union networks are needed to influence the decision making.

The candidates for the European parliament have to campaign nationally and spread their message through opinion leaders rather than media. This also requires networking.

The election result depends on peoples emotions and, thus, personal contacts between the candidates and the voters. But afterwards, when the candidate has become a MEP the new technology is more useful. A Finnish MEP needs assistants and new media to organize an interactive relationship with his/her remote and wide constituency.

He or she also needs advice, but as Machivelli told the prince, will have keep to him or herself the decision when the advice is needed.

Andreas Gross, MP from Switzerland warned that the new technology as such will not bring back democracy to where it now has lost ground. People feel they have lost their say in the political process because parliamentary democracies work in a national context but the relevant decisions are taken on international level, where the people are not listened.

Gross reminded that a basic requirement of a free society is that people only follow the laws they have decided themselves. To make sure that that happens we need new participatory forms of democracy. Gross proposes to intruduce a right to popular initiative to change or repel laws or constitutional rules. The new technology could be used to discuss and develop the options to be voted on the matter.

But the technology as such would not do what it takes. A legal arrangement is needed. This would require a constitution for European union, which is now based on treaties. The treaties leave the legal basis of the union in the control of governments instead of people.

That is why technology may help the democracy but cannot replace the legal and political means to bring it about.

Ari Tammi and
Eero Nerelli (Finland)

NuvaNet and Nettiparlamentti – Democracy Turns into Reality on the Internet

In early January of 1999, at the Politics & Internet Conference in Helsinki, theories of democracy turned into reality when Martti Ahtisaari, President of the Republic of Finland officially opened NuvaNet web site. The site is run by Espoo Youth Council and it aims at exploiting latest technology in order to broaden democracy. NuvaNet is in fact an application of teledemocracy.

NuvaNet is by no means an ordinary web site. For one, it carries a Net magazine edited by young people. For the other, it provides a launching pad for ideas and innovations, called IdeaFactory. NuvaNet is a channel for young citizens to submit their ideas and motions to municipalities and various authorities, and it is also a means to gain publicity. The English language version of NuvaNet is located at http://www.espoo.fi/nuorisovaltuusto.

NuvaNet is not mere technology. It would not make any sense to play with building blocks if they were not properly connected to real life. When it comes to big issues, it is always the human mind that matters. In the case of Espoo, decision makers have taken a step forward and are now listening to young people.

The system behind NuvaNet was built by Nettiparlamentti Ltd, a company to deploy information and communications technologies for generation of ideas and for decision making.

Bridging young people to participatory democracy

Espoo is a municipality with 200,000 inhabitants in the neighbourhood of Helsinki, capital of Finland. Espoo Youth Coucil is a body who can submit motions directly to the city board and who can be represented in committees appointed by the city council. Anyone who gets acquainted with local government in Espoo can recognize the influential role young people can play in it. And the other way round, this is how decision makers can have a genuine contact to young people and their way of thinking.

Without support from high-level decision makers the idea of teledemocracy would have never materialized. Those who are in charge of cultural affairs and external relations in Espoo municipality have been very much in favour of the project. Ms. Marketta Kokkonen, Mayor of Espoo gave her full support. Also Ministry of Education, while committed to content creation of the Information Society has been very supportive. And last but not least, business enterprises such as Compaq, Nokia and Helsinki Telephone Corporation have been generous contributors to the project.

All through the 1990's, the number of youth councils has been increasing in Finland. By the end of this decade, almost one hundred youth councils have been established which means that every fourth municipality has one.

IdeaFactory – a step towards transparent teledemocracy

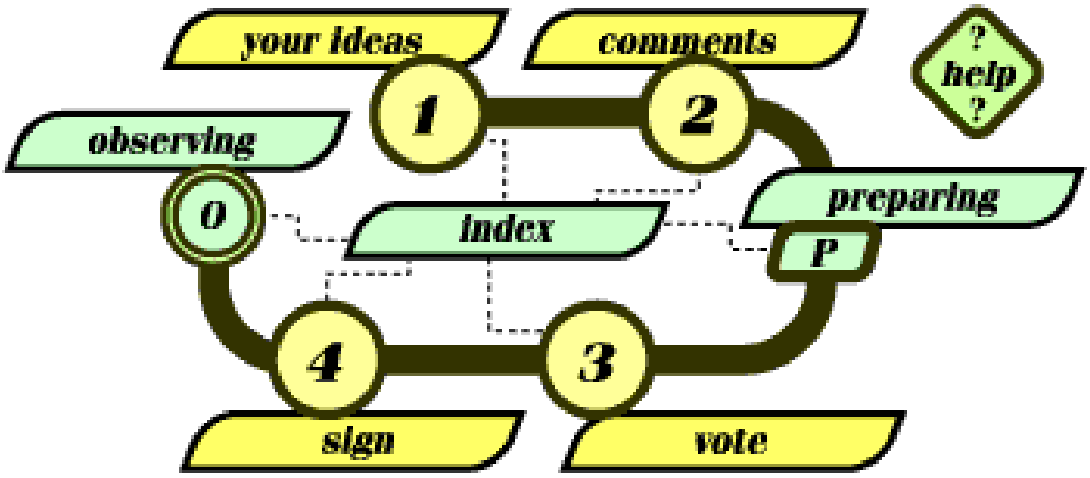
For many years, business companies have been cultivating their incentive systems which have resulted in rising profits. Accordingly, the young generation is anxious to introduce that mode of operation into the public sector. What they suggest is that bridging the gap between decision makers and ordinary citizens leads to joint forces which then bring benefits for all.

IdeaFactory as designed by Nettiparlamentti is based on the notion of transparency. Those who put forward their ideas are able to follow the process and get feedback. The system collects all arguments, both pros and cons. Thus the originator of an idea can see how others react to it.

Once an idea has been received, elected moderators elaborate incoming arguments and prepare a motion which is then sent back for a vote. If that proposal is then fully endorsed, it is forwarded for virtual signatures. This is how a proposal, possibly signed by hundreds of young people, ends up with the city board or municipalities, or the local media.

In our postmodern society there are three major means to exercise influence: through the media, democratic prosesses or lobbying.

The process in IdeaFactory is either open or closed, in turns. The young moderators of Espoo youth council are there to keep it going. They communicate with each other on the Internet, using real-time transmission of image and voice.



Implementation needs incremental elements

For the system to be fully operational, technology is not enough. In order to encourage the new generation to participatory democracy, members of Espoo youth council visit schools to introduce NuvaNet.

NuvaNet also offers an ample forum for young people to carry out a few other everyday duties. One application is the assessment of the educational system. Pupils of upper secondary schools are requested to evaluate their teachers's expertise, contents of their curricula, methods and tools being used, and also social aspects and milieu of their school.

The Internet service of Espoo youth council integrates many topics that are of interest to young people. NuvaNet also serves as a YouthMedia. A designated campaign to coach young people in the basics of democracy is currently being developed for schools in Espoo.

The thing is that democracy needs to be developed on several layers. To employ democracy, several social and societal skills are badly needed, among them interaction, argumentation and debating. And technology is there to guarantee a continuous flow of information and to link discussion groups to each other.

New approaches and structures – new decision making culture

IdeaFactory and Five-Day NetMeeting, the products developed by Nettiparlamentti, are necessary tools in new decision making culture. Both products can be exploited in business environments, too. Employees who generate and develop ideas have always been a main characteristic and a core of flourishing businesses. But such business enterprises could not have turned profitable if the management had not been supportive and willing to invest in implementation of those ideas.

IdeaFactory is to generate arguments. It encourages people to consider various angles of the subject matter. The products by Nettiparlamentti contribute to a reflective working method, an approach badly needed in democracy. Casting votes in not enough in today's democracy. Cultivation of democracy needs exercise of intellect: profound thought and interactive deliberation. IdeaFactory offers a viable tool for organized and well-structured employment of democratic powers.

Changes in everyday habits generate political change

The Students' Union of Helsinki University is about to launch an IdeaFactory of their own. The aim is to enhance democracy among student members. Also educational institutes of distance learning plan to do so, aiming to increase participation among distance learners. This is how teleworking students could share their feelings and experiences, and also contribute to further development of teaching methods. And once again, it is vital to be able to follow up the proceedings of one's own idea.

In the above cases, IdeaFactory needs to be supported by a moderated web site, and students are invited to contribute to its design and implementation. This in turn may have a positive impact on the internal culture of those organizations and make them more open and co-operative. And in the long run, that mode of operation may well turn into a competitive edge.

In Finland, educational institutes have a strong need to link their curricula to working life. In-house training experts in private and public organizations form a new genre, and they lack a joint forum to keep in touch with institutes of theoretical studies. Hence all learning organizations, business companies and educational bodies alike, would benefit a lot if they joined their efforts through networking.

One of the current trends in Finland is to dismantle societal privatization. Simultaneously, deployment of technology has become a key issue. Changes in policies and practices are reflected in our everyday doings.

Members of Parliament pave the way for others to follow

Recently, new working methods and tools for the Parliament and members of the Parliament have been vigorously discussed. The current vision is that interactive working methods on the regional level would bridge the gap between decision makers and ordinary citizens. Trials could be initiated either by single members of the Parliament or by co-operative teams in electoral districts.

Outside the firewalls of the Parliament's information technology services, a moderated service site with an IdeaFactory for each electoral district might easily bridge MP's and voters. For MP's this solution could provide a new opportunity to pose questions to citizens and learn their opinions. And for voters, the site would offer a channel to keep in touch with their MP's all through the electoral period.

Virtual decision making systems are currently undergoing major changes. With the technology of today, meetings and planning procedures can be easily run on the network. For instance, a Five-Day-Meeting on the intranet could revise functioning of any decison making system to a great extent.

A portal web site for politics – original sources and interaction

Nettiparlamentti Ltd is currently developing a working forum, a sort of agora, for politics. Eligible senators for this "parliament" are all those who deploy new working tools. Once this effort turns into a success it links together a great variety of political views, on all levels of the Finnish society.

In order to complete ongoing legislative work, decision makers need to be in a constant interaction with citizens. To let final decisions be officially posted, with no advance notice, is not the name of the game any longer. On the contrary to the previous political culture, authorities have to be available to citizens prior to their final decision making. A comprehensive portal site for politics can render services to citizens by offering an additinal window to ongoing projects. This portal site for politics can introduce original documents and sources and serve as an interactive forum. This portal site can also serve as politiccal archives.

Ms. Riitta Uosukainen, Speaker of the Finnish Parliament, inaugurated this portal site at Politics & Internet Conference in early January. The site was designed and developed by Nettiparlamentti Ltd who also supplied other official teledemocracy services to the Conference. Conference news and the guest book for further commentary are located at http://www.nettiparlamentti.fi.

Finnish information society with a Nordic dimension

In the course of the years, well-established Nordic democratic tradition has been a source of inspiration as Finland has become a forerunner in the development of information society. These two parallel trends form a viable platform for further discussion which should by no means turn down constructive and critical remarks. From now on, innovations and their implementations should be exploited both on the national and international level.

In the recent conference on Politics&Internet, the Russian parliamentary delegates argued that Finland might well pave the way for their neighbours in Internet technologies, through consultation and guidance. Would it be possible for new technologies to strengthen mutual understanding, ethical code of conduct and healthy democracy inbetween decision makers and voters? Could information society, teledemocracy and deployment of new technologies in societal issues be part of the new Nordic dimension?

This questioning may bring many positive visions for increasing openness and co-operation all through Europe.

Interdependence today calls for evolution, not revolution

Hospitality and courtesy are a way life to all those who are active in political life. Also, when it comes to networking, a slice of flavoury cake is a must every now and then. While feedback from conference delegates is requested, impressions of conference events and video clips will be served in return. It is always nice to know how one's own opinion mixes with ideas submitted by others. Although the subject matter is a key factor in Nettiparlamentti's product portfolio, user-friendly features and human interfaces are always imbedded in them.

Currently, interdependence is not a mere slogan but a cornerstone of our everyday life. We live at the crossroads of our private engagements, various social institutions and public administration. We face many challenges, and live in very fragmented conditions. And once we are not able to cope with those conditions, we suffer from tension. Then the question remains how to attract people to co-operation and participatory democracy. Now that we are apt to get grip of human genetics, other facets of human life should be cultivated, too.

In exploitation of technology, it is not mere technology that matters but it is the development of new methods and tools that should be everybody's concern. Deployment of new media will be on the agenda again very soon once Finland takes over EU Presidency during the second half of 1999.

Päivi Karhula (Finland)

Network Services and Librarianship

For my work as a civil servant planning and coordinating network services for the Finnish Parliament library this confenrece served well as a fruitful mixture of exchanging the practical experiences and learning from the general scenarios concerning the future of society, democracy and Internet.

Politics and Internet -conference didn't give me as many answers as it raised new questions, addressed problems and suggested some development directions. However for development and planning purposes the right questions may be even more valuable than too early answers.

Internet issues tended to grow to very complex themes to touch and it seemed like the questions of what, how, why and what for mixed up in discussions. Due to the labelling diversity I just want to raise some points of interest which seemed very valuable concepts for my work.

Interactivity, competition and speed came up as key issues for me. Different experimental network service projects indicated the possibilities of new technologies to break isolation, motivate, solve communication problems and support participation in democratic decision making especially among some "information poor" groups.

Some warning signs and controverial results in relation to the goals of the projects came up though due to the incomplete understanding of the environment and unexpected behaviour of human beings :-). It seemed apparent that the users will define if the application will fit in to their reality and how they will act with their new skills based on the broader concepts related to their success and survival. Information needs will not necessarily come first. The means and skills offered need to have a real use within the conditions people live. In this sense the success of the new applications go hand in hand with the economical and social development. Understanding the needs of the users as well as their context and supporting active participation seemed to form the fruitful basis for new projects

Competition is not a very familiar concept in a library environment and maybe not in the sectors of public administration. However the network environment seems to drive the public services to the same market place with the commercial solutions. Availability of information will not be enough there but the survival issues of the services may lie in the ability to gain attention of users, define well the sector of services and the skills to build visible, tempting, useful and reliable services.

Manuell Castells expressed his concern in the conference of the Internet allowing such an eccifiency and speed which will challenge our ability to learn and the ability of humankind to use these means to for a positive development. He emphasized the danger that we are missing the tools to understand what is going on. An american movie "Speed" expresses these ideas nicely addressing them as an audiovisual question: How to make continously life changing decisions which impact the others while you need to drive as fast as you can. Does this sound familiar in (net)working?

The real accelerator though seems not to be only technology but the way to use technology: Digital production. Internet will allow 24 hour services and production processes, recruiting world wide, remote work and makes it easier for companies and organizations to broaden their activities and

businesses worldwide. Basically the scale of changes does not only recall learning new technological skills but to the rebuilding of the society.

Generally I believe this type of conference for studies and discussion is of importance for the network professionals in public administration. Presently we have nearly an overflow of product presentations as well as technical and methodological training but the understanding of the big picture and interrelationships between the social, economical and technological development has not gained much attention. Some concerns was addressed in the conference of our acting as “tools of our tools”. Thus the meaningful part of the work is making sense of directions and driving forces of the development and being able to add purpose and value to the process of development with the human and social responsibility.

Although 92 % of the participants used more than 30 min. daily in the net, it came up that there was several projects in different countries to develop same type of public services which did not know of each other. The international flesh meeting apparently was needed to fill this gap :–)

Finally the last session including the interactive voting indicated quite a confusion in the opinions and expectations of the future among the participants. Maybe this deviation of opinions and uncertainty among professionals would present some of the main reasons to continue the conference in a future.

Concerning the future scenarios and development directions of networked society and these visions had a good balancing impact when the focus of my work has been much on the issues of methods and technologies. The higher we are on a hierarchy to plan the means of services for citizen the greater there is the need to understand the wholes of society and have a good understanding of the development directions.

While there seems to come up continuously urgent needs to move on and learn the new methods and technologies the human mind starts to ask for direction and reasoning for these

...tools of our tools...

Albert Speer, the architect who was so narcistically driven by the wonders of his own work that the sense of human and social responsibility died in him.

Mari Herranen (Finland)

Internet and the Global Information Society -Democracy and Equality in a Global World?

Internet is exploding in todays world. We have about 20 million Internet hosts in the whole world. More and more people notice how practical internet is for shopping, paying bills as well as for finding information and for communication.

Finland, as a small country in the north of Europe with large sparsely populated areas, is a leading country in the world both in the number of internet hosts as well as in the number of mobile phone subscriptions per capita. 40% of all the Finnish households have a computer and half of them have an internet connection. Finland has been seeking a role of the EU as a information society laboratory.

We are moving towards an information society, where new technology is more important and where information and knowledge is increasingly important. This will affect our jobs and our daily life. There are many practical and everyday ways to use the Internet. In Finland Internet has been used for example to teach children /students living abroad and having their teachers in Finland.

Information society and knowledge

The information society requires new things of people, as for example tolerance to rapid changes, flexibility etc. In the information society we are surounded with large amounts of information. People get, because of the Internet, access to more information quicker and easier than before. Information and communication has not necessarily to be knowledge. Information is raw material compared to knowledge.

"Information is slavery to the thoughts of others, knowledge is power and freedom to do one's own thinking." D.D. Hade

The Internet is a big option for the global society but there are also several threats. One problem with the increased amount of information in the technology society is overdose of information and not necessarily relevant information. People feel that they are loosing the controll over the amount of information. Another problem is timelack and stressrelated problems in the Information Society.

There is also the problem concerning the quality of the information in internet. Internet is open not only for users but also for those providing information. Should everyone be allowed to say what he or she wants? What kind of information and what kind of communication do we distibute and do we allow to distibute through the Internet. Should we make a new set of rules for the Internet? In the future we will all be producers.

The role of the citizens and their means of exercising influence in the information society has changed. If you are accustomed to the latest technological inventions you have a better access to information and to influence.

Globalisation and the internet

In this globalised world, in our connected world, there are more and more people left outside. As Mandela has said that “most people in the world have not made a phonecall”. The world is getting smaller, but the differences between those people that already uses information technology and those who are not are growing. There are differences beteen different countries as well as within one country.

The nation-state is weakened and the use of internet is not hindered by state boundries The virtual world has no borders and therefore the nation-state can not control the citizens in this society. If the nationstate can not do anything, what can the European Union, as a supranational organisation do? In the process of globalisation, do we need a a European dimension?

Democracy

What is democracy in Internet and in the information society? Internet can be used by various political movements and groups, both by democratic political parties and by taliban-movement or neo-nazis. Future political conflicts will probably be on the Internet. In fact they already are.

Already now Internet is used in Finnish politics, for political campaigns. In the national Finnish Parliament elections in March 1999 Internet has been used more than ever in the Finnish political history. Many politicians have noticed that internet can be used as a channel where they can be heard by citizens, and many have opened their own homepages. There will procbably be more interaction between Members of Parliament and the voters. Soon we will have governmental sites at all levels of government, as well as the Internet can be used to promote campaigns in various elections, as the presidental elections, european parliament elections and local elections.

Internet does not bring about democracy, but it can be used to enhance democracy. Internet can make it a more open and flexible system.This depends on if we will and can give everyone in the society a chance to participate. How do we achieve that?

Citizens rights in an information society

The use of Internet and the knowledge of Internet creates differences within a country as for example Finland. When more services are on the net people who do not have access to the internet are left outside. Individuals that lack skills of technology are excluded from social participation as well as political participation. Age, income level and schooling are factors affecting the use or non-use of the Internet. Inequalities exists both at a national, a european and at a global level.

There will be cheaper computers in the future and computers will be as common in a home as a television. With mobile phones and the coming digital television it is also possible to connect easily. Only computers and access to raw materials are not enough, but the need for good teachers and organised courses are vital for computer literacy. Internet should be as accessible for everyone as the public libraries are. Should computer literacy be regarded as a human right? Everyone should have a opportunity to share the benefits of the information society provided apropriate training.

Public libraries could become virtual libraries where people who do not have a computer can use the Internet. The tradition of public libraries is common for all the nordic countries, but this is not the case with other European counties. The culture is different which means that also the solutions has not necessarily to be the same. Even if libraries would become virtual libraries there will always be books also.

Access to published information should be of vital importance in the information society. Openness and transparancy as well as speed are words attached to the Internet. In this information society it is not possible that an institution, even on the European level, can prevent people from getting information. European Union has been accused of not being the most open nor the most transparant organisation. Of course you can argue that the French administration culture in Central Europe is different than the nordic administration culture.

There is a threat of increased inequality between people that know modern technology and those who do not and are left outside the social and political participation through modern media. Everyone should be ensured participation.

The Future

The Information Technology changes and will change even more profoundly our society. It is difficult to see into the future, BUT do we know what we want? What are our goals? The Internet offers many possibilities as well as many threats. The most important thing is to ensure everyone in the society a possiblity for participation.

The geographical facts do not change even though we have a new virtual dimension.
People can choose to what virtual community they want to belong to or participate in (wheter at local, national or international level) and these do not exclude each others.

We should remember that the Internet should be used as a means and not as a but in itself. We control technology and it is here to help us.

Marja-Leena Hilke (Finland)

Press

The 2nd International Congress on Electronic Media & Citizenship in Information Society was organized by Sitra, the Finnish National Fund for Research and Development on the initiative of the Committee for the Future of the Finnish Parliament. The main sponsoring partners were ICL, Cap Gemini, Helsinki Telephone Corporation and Finnish Broadcasting Company YLE. The highly topical themes of Politics & Internet were debated thoroughly from many points of view and the keynote speakers represented a very high level of knowledge and expertise both worldwide and in Finland.

The Finnish media – both the electronic media and the print media showed much interest in the topics of the congress. Contrary to the expectations of the organisers the Finnish holiday Epiphany on the first congress day did not influence restrictively the participation of the local media. When organizing the congress the organisers did not wish to stress their own role but direct attention to the issues of the congress. The press office was open all day both in Lasipalatsi and in Dipoli. The organisers wanted to offer the media representatives an opportunity to meet the lecturers after each session on the first congress day and after the keynote sessions on Thursday and Friday. This proved to be a very flexible and practical procedure to bring the media and the experts together. Tailor-made interviews were also offered. The speeches were available partly in print and partly on the net. The congress in its entirety could be followed on the net.

So far over 150 articles have been published about this particular congress all over the country and the conversation around some of the topics of the congress has continued intensively e.g. around digital TV. The organisers were very satisfied with the active role that the Finnish News Agency took in participating in this congress.

The Finnish News Agency reported the Finnish electronic and print media a.o. the following themes:

– *The Internet – a place for politics or commercial interests ?*
– *Is Central Europe still a development area for the Internet – political opportunities limitless*
– *Finnish Broadcasting Company YLE intends to succeed in the IT world*
– *The IT directors oppose international limits of the export of encryption codes*
– *Linturi: Crime via the Internet too easy*
– *Ahtisaari: A knowledge society must not lead to social inequality*
– *The Youth Council of Espoo opened an electronic incubator*
– *The Internet can be a factor for democracy but it means work*
– *In the States the Internet already affects political life*
– *The libraries can become the heart and brains of the knowledge society*
– *The elections are reflected on the Internet – politics is still seeking its own role*

The Congress had recruited 20 young and older web-editors who supplied materials for the net throughout the congress.

I&P Chatting and Final Flesh Meeting (editors)

This is a glimpse of discussion which TV-reporter Risto Johnson (Finnish Broadcasting Company, YLE) chaired and monitored before and during the congress. This discussion, as all material of the congress can be found in whole in Web (http://www.kolumbus.fi/pi99 -> Discussion).

Chat pages:

Topic: Angels, devils and social cohesion

Risto posted 14-12-98 10:48

Professor Manuel Castells praises Finland in our interview: http://www.yle.fi/2000+/arkisto/19981028/alykon.html) as a country that really could have future at its fingertips. He assures he is honest – not opportunistic – when saying that "You represent an aproach which is one of the most interesting approaches of combining modernity, identity and democracy, which is the future of the world, if the world is going to have a future".

Sounds wonderful.
Do you agree?
Maybe in the Nordic countries fewer people than in other parts of the world are in danger of falling into the black hole of the Fourth World (=poorly skilled social groups excluded from networks and the benefits of the information economy) . However , that is not guaranteed.

What could and should be done in order to maintain social cohesion @2000+ ?

Another quote from Castells´ interview :

"What the technology that we have in our hands does, is so powerful that it accelerates extraordinarily everything that we do with this technology. If we do good things we are going to do extraordinarily things. If we do bad things we are going to do terrible things. Since we are all individually and in our societies angels and devils at the same time, this technology is going to be angelic and devilish at the same time. That is what we are observing".

What are your observations? Do you see angels or devils ?

Feel free to write your comments here. This chat will be monitored participants of the Politics and the Internet Congress 6 to 8 of January 1999 in Helsinki. This is one way to send your regards to them.

Markku Markkula posted 16-12-98 16:50

Risto's point and question were: Maybe in the Nordic countries fewer people than in other parts of the world are in danger of falling into the black hole of the Fourth World (=poorly skilled social groups excluded from networks and the benefits of the information economy). However, that is not guaranteed.

What could and should be done in order to maintain social cohesion @2000+ ?

In Finland, the Parliament and the Government have decided to create lifelong learning to be the cornerstone of Finland's success. It is essential for all of the citizens that we develop different forms of communication and telecommunication so that they are suitable for the teaching and learning of different kinds of people and are available for all. We must speed up this development.

The slow development of contents created or conveyed with new technology has become a problem in the development of information society. As a strong statement the Parliament has therefore chosen the production of learning material contents and the development of pedagogics and learning environments of network aided learning forms to be a focus of the national information society strategy. There has to be considerably higher investments made to the quality and quantity of the continuing education of teachers so that each and every teacher can answer the challenges of the information society development. These strong quidelines for action are included in the report of the Committee for the Future. This Committee consists of seventeen MPs and is responsible for preparing the Parliamentary statements for the future of Finland.

The Parliament emphasises that with governmental funding policy we must encourage all of the information and telecommunications operators and educational institutions to networked co-operation. Through this we can achieve high-quality virtual teaching networks all over Finland and at all levels of education in the near future.

Despite of problems the existing educational institutions are gradually forming into networked learning centres. The role of libraries is very essential. It is changing into education maintaining and learning aiding media centres. The Parliament has speeded up also this development for example with the new library law, which was approved a month ago. The Parliament made an amendment to the government bill: "It is the goal in the library functions to advance also the development of virtual and interactive network services and their high level contents."

Learning and working together as a true and extensive understanding of others is a challenge for everyone. We have to create new forms and methods for every citizen to participate in operating in this virtual village.

Markku Markkula, MP
Politics & Internet Conference
Chairman of the Programme Committee

Dave Newman posted 17-12-98 15:07

When people suggest that the Internet (or any other technology) might reduce social cohesion, I ask them:

"How can the Internet reduce social cohesion in Northern Ireland?"

Many people here see the use of technologies which hide your religion from others as a potentially liberating tool. A young unemployed person using IRC in Bytes for Belfast doesn't know whether he is chatting to his community's angels or devils.

I predict that the most interesting socio-technical inventions to support social cohesion will come from places in conflict (as necessity is the mother of invention). And they will actually work best in places of existing peace and social cohesion, such as Finland.

For one example of how face-to-face conflict resolution and mediation techniques developed to meet such needs can be brought to the Internet, have a look at my paper on a consensus voting system, the preferendum (http://www.qub.ac.uk/mgt/papers/prefer/), presented at the Web4Groups conference on Voting, Rating and Annotation on the Internet in Vienna last year.

Risto posted 20-12-98 13:21

Dave,

Thank you for your post. I like the idea of a preferendum.

I wonder how a world-wide preferendum on Wassenaar consensus agreement on strong crypto would work Or a preferendum on whether or not internet should be a public good.

Dave Newman posted 21-12-98 19:25

A preferendum doesn't work for yes/no questions. You need to rank a number of alternatives. Indeed the first benefit is in forcing voters and politicians that there are often more than two options.

So you might get people to rank alternative Internet financing and control schemes, with different public/ private mixes.

Or ranking alternative compromises between complete privacy and anonymity through encryption and complete state access to citizens' lives (the on-line East Germany).

Katherine Watson posted 22-12-98 08:19

Three areas of commentary come to mind in my reading of these messages:

1. the broad-based nature of education and knowledge... it was remarked that Finland is interested in distance learning and in lifelong learning. We must make certain that people far distant from industrial centers or from "first world" technology can obtain access to education/knowledge; we must make certain that the 'Net, and 'net-delivered information, not be elitist, available only to the rich. Likewise, we must make certain that people of all ages, throughout their lives, may take advantage. That is, be certain that the old as well as the young are afforded education and ease of access.

2. Libraries/resources... What we have found at Coastline Community College in California, USA, is that we really do need a library, electronic or otherwise, of dependable resources. People must not abandon research after having seen a homepage for something on the web.

3. Isolation and the risk thereof... A lot is said often about the benefits of rapid communication to everyone from everywhere with the power of the 'Net. We must remember that 'Net connections are made by single people in front of single computer monitors. Each of us risks separating himself from the real in favor of the virtual... thank you.

And the discussion continues...

Final flesh meeting on Friday, January 8, 1999 in Dipoli, Espoo

As a link to Mr. Johnson's chat pages the audience in the closing panel had the opportunity to discuss and even vote for the opinions presented on pages. The main interest focused on statements of Professor Manuel Castells.

During closing panel seven participants with different professional and cultural backgrounds discussed about internet democracy: what the net does to politics and politics to net.

Participants were Dr. Chun Wei Choo (University of Toronto), Project Co-ordinator Steven Clift (Web White & Blue), Dr. Beth Noveck /Yale Law School), Project Director Antti Rainio (Sitra), Director Leopold Reif (Deutsche Telekom), Journalist Byoma Tamrakar (Nepal) and MEP Astrid Thors.

Panel touched four topics, which were 1) the power and direction of the digital IT, 2) fears and risks, 3) obsolescence of the nations-date and 4) how to combine democracy, identity, information and globalism?

In this session a unique audience feedback and response system technology was used. It was sponsored by the Finnish Broadcasting Company – YLE. The system enabled to collect and analyse the response from all session participants, and gave them a possibility to get really involved in creation of the congress conclusions and outcomes.

Web Editor (editors)

The Congress had recruited 20 young and old web-editors. This group of editors was collected together by ELLI Finland – the national node of European Lifelong Learning Initiative.

This group of 15–21 years old editors filmed, interviewed and writed articles about the Congress topics and people involved. This material was published daily by NettiParlamentti Ltd – the Official Teledemocracy site of the Congress.

This multimedia material will be re-edited after the Congress by SVEPS – a group of young media students- and published by Sitra. SVEPS produced also the introduction video for the Congress.

Here is a short demonstration of the work of young Web-editors. These news are from Web-sites, and they tell something about how young people saw the congress and the speakers.

Virtual library for children

Project called Chilias is two-year project supported by EU. It's a project where a virtual library for children from 9 to 12 years is created in six European countries. Those countries are Finland, Germany, England, Portugal, Spain and Greece. The City Library of Stuttgart has been working as coordinator of this project. The virtual library provides to children teaching about how to find information, and there is some information about the favourite topics of 9 to 12 years old children, such as animals, music and sports. The library has also a chat page, where children from different countries can discuss. Of course there might be some problems to understand all the messages because of the language differences. You can find this virtual library in Finland from the address www.infoplaneetta.hyvan.helsinki.fi.

Joel Puhakainen

School Computers

One of the subjects of this conference has been the computer equipments in Finnish schools. It seems like nobody really knows about them here. Are the facilities good enough? As a student I think I know something about this. So, the answer is yes and no.

In some schools they have two computer classes full of the latest technology and so on, but in some schools students still work with "old" 486 or even 286 computers. Why is this? Aren't the Finnish schools equal compared to each other? I'm not sure about this, but I think they should be, at least we have been told so. This is why I wonder how is this possible?

One of the answers could be that some schools have received gifts or been sponsored in some way. Still this cannot be the whole answer, but as Benjamin Barber said: "You should rather have good teachers with not-

so-amazing computers than the latest computers with teachers that do not know how to use them." I fully agree with him, it's quite annoying to teach the teacher.

Oskari Heikkinen

Comments about the first day in Lasipalatsi

Nowadays, when all the newspapers and magazines seems to talk about Internet, I was amazed, how "old" topics introductions handled. Most of the speakers just repeated the same phrases that have been written by the magazines and newspapers last couple years. Politics and Internet -congress should handle in Internet, and that is very rapidly changing subject. And I think the main point in the Internet business is to be in the veins of time. Actually there were no new point of views in the beginning of the day at all. Some of the speakers concentrated to advertise their own business and didn't even try to bring anything new to the conversation.

E.g. Mr Linturi, who usually has plenty of good ideas, told the audience about some projects that have been started many years ago. I think this would be interpreted in many ways, but the main point is that all of those projects were quite old ones.

But it was a positive thing to notice that the last two spokesmen (Benjamin Barber and Bertil Haarder) "saved the opening day". They were the ones, who brought something new to the conversation. They didn't repeat the same phrases about Internet, which all the magazines have told during the last year. They really had fresh points of view. In other words they actually told something worthwhile of hearing.

Pekka Holopainen

The story continues in the last article by Mr. Arnold Lerber.

Paula Tiihonen, Doctor of Administrative Sciences (Finland)

Can the Nordic Welfare State Survive in the World of the Internet?

> *"Strong democracy means the participation of all the people in at least some aspects of self-government at least some of the time."*
>
> Prof. Benjamin Barber, *Strong Democracy,* 1985

For the citizen, modern technology, including the interactive Internet, has created technological possibilities for genuine self-government, independent decision-making and timely participation in the preparation of decisions. In spite of the technological progress, however, we are far from achieving the objective of a strong democracy. While a basic requirement of Prof. Barber's concept of energetic self-government, free and equal opportunity to obtain information has not become a reality.

As long as the information society remains a matter of the most creative engineers, the most adept Internet surfers, the most capable brains, the top IT researchers, ministerial workers wielding centralized public power, and merchants hawking the latest communications technology, we must, in the name of democracy, demand a people's information society. The more clearly the economy is built around such success factors as technological expertise which pervades all production and activity, global competition, innovativeness, and a sure and functional social structure(including a strong and effective public sector) the less right we have to neglect a single area or social group. In the case of Finland, with its five million people, this means that we must all in some way be working to achieve success – each person in his or her own way, at his or her own level.

The objective of the POLITICS&INTERNET Congress was to raise consciousness about the impacts of the new information technology on life and society, and thereby on democracy. Because the problems range over many levels and fields, we tried to elucidate the multifaceted importance of the Internet through a great variety of themes, workshops, and addresses. The participants included politicians, civic activists, scientists, IT engineers, civil servants, journalists, library people, students, young people, old people, special Internet users such as the blind, and a variety of practitioners in the field. All the continents were represented.

We shall be dealing with the same spectrum of levels and fields if we demand the realization of Prof. Barber's strong democracy in the society of the future. It will not suffice for simply the highest-level state organs to meet the conditions of democracy. It will not suffice for simply a few large, wealthy countries to make advances in information technology. For the conditions of Prof. Barber's strong democracy to be fulfilled, the model of self-government must spread from the centres of power to the people. In Finland that means disseminating the model to our provinces and communities. The model must involve work and leisure-time activities as well as legislation and administration. All age groups, from children to the elderly, must be included. The right to self-government must apply equally to rich and poor.

On the basis of these assumptions of diversity, I would like in my article to point out a few themes that are important from the standpoint of democracy. They too are varied in terms of level, but all of them have a connection with the Internet and democracy.

I present these themes as my thoughts and impressions. I do not assign them any order of importance. Some are matters of principle, some matters of practice; some are structural problems and some amount simply to very human anecdotes; some are fundamental questions of democracy on a grand scale, some provide glimpses of democracy in microcosm. Such is the world of the Internet and the information society in general. The old assumptions no longer hold; nor do hierarchical configurations.

I got answers to some of my questions at the congress; to others I got a partial answer; to yet others, no real answer at all. All my advance reflections did however receive new stimulation. In subsequent congresses, we can deal with the questions that remain. Naturally, discussion of the information society will also continue within Parliament's Committee for the Future after the upcoming elections.

The Internet's impacts are manifold. If we are to be honest, we must try to treat the Internet as being as complicated and difficult as it might be. To me, the word *Internet* brings to mind the following questions:

1) Where will the tax revenues for the Nordic countries' democracy and egalitarian social welfare system come from in the virtual economy?

The steady receipt of tax revenues is one of the key foundations of the Nordic welfare state. It is difficult to imagine how we shall manage to preserve the welfare state model if that foundation fails. It is simply impossible to promise everyone schooling, health care and child care free of charge if large sums of tax money are not being collected.

If, on the one hand, both commerce and various phases of the production of goods are entrusted to electronic communications, and, on the other, an increasing amount of work can be done, and profit generated, incorporeally, what or whom is the state to tax? In a virtual economy, wealth is created with commodities and labour that cannot be specifically located either geographically, institutionally or temporally.

It does not have to be virtual commerce, business in cyberspace or intellectual products, which are disappearing from control of authorities responsible for collecting tax or customs. Think only about those quite old-fashioned everyday products – clothes, books, kitchenware – which are sold via Internet, produced in 10–15 different places all over the world and delivered in old-fashioned parcels by post to customers. It will after some years take tremendous resources to collect any kind of tax or customs of them. The volume of activities is such.

And you cannot in any way collect more tax from workers either. In Sweden it is said that every fourth young engineer and economist leaves Sweden immediately after graduated. The desire to get out has spread also among people working in public sector (nurses and medical doctors). It was recently in the newspaper that the main reason is a burden of taxation. The lost is manifold. Only think the costs of education from kindergarten to university in the country where almost everything – just to mention childcare, healthcare and education – is organised free of charge, paid by the state.

The same is situation with firms. Sweden has a higher taxation than Finland. A lot of headquarters of famous global firms have moved abroad in the era of giant fusions (ABB to Switzerland, Astra and main part of Ericsson to London, Volvo to Detroit and recently StoraEnso and MeritaNordbanken to Helsinki). And you cannot help that more and more quite ordinary people personally invest abroad or remove their account to Island of Jersey.

Simply, at the time of global connections the borders of a nation, also borders of a welfare-state like Finland, is there where is the nearest PC or mobile.

I asked the final panel at the POLITICS&INTERNET Congress about this issue, but there was no longer time for it. Perhaps the issue can be resolved with the aid of technology or policy, although I am not yet able to see how.

2) How are jobs created in the information society?

The thought may be a bit old-fashioned, but I believe that, if people are working, both the individual and the society prosper. I think it is important in the information society, too, that everyone have both the right to be useful and the right to benefit from work.

The current rationalization trend in IT worries Europeans. If the big EU countries streamline and automate operations as swiftly and thoroughly as Finland has in the public and private sectors alike, millions will be ”liberated” from so-called old jobs and old fields. In a modern Finnish paper mill, one man sits in front of a great control console reminiscent of an aeroplane’s instrument panel, directing an extremely complicated, super-automated production process in which wood is transformed into the world’s finest papers. Rationalization has displaced almost all the girls who once worked at the teller’s counters of our banks. Altogether half of banking personal was kicked out in 10 years. In Finland, the bank now is a personal computer or a TV terminal in one’s living room. The post, the railways and many other large, traditional government departments have been turned into public utilities or privatized. This has meant a reduction of personnel or sometimes, regrettably, the replacement of older workers with younger ones.

It is worth noting that, in Finland, the automation process took place primarily when the information society was not even yet a subject of discussion. Now a new series of rationalizations is being instituted through globalization and mergers.

If we compare rationalization-boom of 80´s to this latest one there is a big difference also with the effects of knowledge to the employment policy. In almost every field of production you have to recognize and try to use the newest results of science and research. In almost every field of science and technology you can see revolutionary innovation. Information technology has been driving these changes by magnifying the acceleration and sharing of knowledge. New methods are improving the productivity of science, engineering, and desing talent. At the same time, the wordlwide networks of scientists and different kinds of innovators and experts are enabling the free flow of ideas and knowledge. The economic and other rewards for technological innovation, discovery and knowledge have never been higher. It is estimated that knowledge is currently doubling every five to six years. In the future, by year 2020, it will double every 73 days. In the visions of employment policy of EU it is speculated that until year 2005 80 per cent of technology being used is younger than 10 years. It means that the relevant, important technology in the beginning of 21th century is mostly still unknown, or it is perhaps only some ideas and hypothesis in the heads of some professors and engineers.

At the global level, the streamlining of production and the economy in general is vitally important to all players. The problem is how to ensure that, when the dust settles, various social groups will have found their respective places in the new world order and its division of labour. There is necessary and beneficial work to be done. In the competitive global market, however, that work is not necessarily paid.

3) Has technological expertise combined with economic aggressiveness already made the United States the 1990s’ big winner?

In terms of financial worth, as opposed to number of employees, the world’s 500 largest business enterprises, at the end of the 1980s, consisted of a rather even mix of U.S., European and Asian companies. Today, at the end of the 1990s, U.S. dominance is an obvious fact. As of 31 December 1998, the top 50 enterprises included few from outside the United States: of the top 25, 20 were from

the States, 2 from Switzerland, and 1 each from Japan, the Netherlands, and the United Kingdom. The only Finnish firm in the top 500, Nokia, had jumped in one year from 108th to 62nd. On both the global and European top-500 lists, more than 20 per cent of the names had changed in the preceding year.

In the 1990s, the pace of global competition and renewal has picked up speed. In the end, only the strongest will survive. Some gurus say that if an enterprise becomes one of the three biggest in its sector, it will have a good chance of prospering, but more and more experts are saying bluntly that only one will win.

The U.S. commercial and industrial renaissance of the 1990s has been dramatic. The States' share of world stock-market value has gone from 31 to 53 per cent. Japan's share, which was 42 per cent at the beginning of the 1990s, has shrunk to a mere 10 per cent. The United Kingdom has gone from 9 to 10 per cent, while the remainder of Europe has seen its share grow from 13 to 21 per cent.

In terms of stock-market capital expressed in billions of U.S. dollars, the world's top 10 companies in 1990 and 1998 were as follows:

1990		**1998**	
Nippon Telegraph and Telephone	119	Microsoft	318
IBM	69	General Electric	295
Industrial Bank of Japan	68	Intel	194
Royal Dutch Shell	67	Merck	188
General Electric	63	Exxon	174
Exxon	60	CocaCola	170
Sumitomo Bank	56	WalMart Stores	165
Fuji Bank	53	IBM	152
Toyota Motor	50	Royal Dutch Shell	149
Mitsui Taivo Kobe Bank	50	Pfizer	146

At the POLITICS&INTERNET Congress, I asked myself how great a role the United States' obvious expertise in IT has played in forging the country's economic dominance. I include in that expertise know-how with the Internet, which has pervaded all of business life and, indeed, all of society.

4) Will sociologist Amitai Etzioni's objective of a humane market prove impossible in the 21st century?

Writing in the *New Statesman* (20 November 1998), sociologist Amitai Etzioni says that most admirers of the United States' economic success seem unaware of the extent and nature of the sacrifices it has entailed. In this particular article he does not refer to the poor or to the rise in economic inequality, though these are important and oft-noted topics. He is worried, rather, about the quality of life for the majority, the effects of competitiveness and the rat race of the new global economy on the lives of most members of U.S. society.

U.S. families are working much harder to maintain their standard of living than they did a generation ago. Most of them now have two or even more breadwinners. Among secondary school pupils, 75 per cent of all boys aged 17-18, and 38 per cent of girls in the same age group work more than 20 hours a week during the school year. Millions of elderly Americans work to provide for themselves and their families. The money is needed for many purposes. For upper-middle-class families, more work and money are needed for better cars or more luxurious holidays; for the lower class, it's a matter of family subsistence.

The result has been a profound decline in the quality of life. People have much less time for their children, for one another, for community life and voluntary work, for studying, and for the enjoyment

of everything else that is not work-related. At the same time, health-care and retirement benefits have been diluted and reduced. There has always been much less job security in the States than in Europe. The few U.S. companies that formerly guaranteed lifetime employment have announced that all bets are off. Mr. Etzioni says that the quality of everything from food to nursing-home care has been compromised by weakening government regulations and slicing enforcement budgets. Hours, staff and services have been cut in practically all institutions, from public libraries to museums. All these developments affect most Americans.

Mr. Etzioni goes on to note that the social element of the market has not disappeared in the States – but it has been, so to speak, downsized. Even the *Wall Street Journal* has asked, Is the market cutting too deeply into the life of the nation?

Finally, Mr. Etzioni asks directly: *"Do all societies, if they are to hold their own in the world market, have to make the same trade-off, or can some restructure their social markets in ways that keep the social more robust? How far is a society willing to go to gain a few extra percentage points of economic growth and 4 per cent less unemployment?"*

5) Does the distribution of labour in the information society mean that the capable young people will get the prized information jobs while the old merely serve the young?

At the congress, one of Amitai Etzioni's characterizations of the United States, which has gone the furthest on the information society road, got me thinking, Are we headed in the same direction in the Nordic countries? According to Mr. Etzioni, *"Next time you see a widow in her eighties dragging her feet to serve customers in an American restaurant or drug store chain, note that she is not alone."*

In the Nordic countries, this kind of sight has been an impossibility, because you get a payment from the government if you are disabled or over the age of 65.

In Finland, it is anticipated that today's unemployment will turn into a labour shortage in the 21st century. The need for information workers is already increasing, and sharply. At the same time, people are taking early retirement at age 58, on average. As we 50-somethings retire at an earlier age – increasingly, as technological change pushes us out into the cold – where will the money come from for today's 60 per cent pensions? Will waiting on the expert generation, on the money-makers, be the only alternative left?

6) Will virtual stock markets, with their virtual share prices, begin the 21st century by bringing down the economy?

The international financial press has been telling us for more than a year that the technology-driven rise in the U.S. stock markets has left the realm of reality – and that the euphoria will soon end with a bang, not a whimper. The prophets of doom were joined most recently, at the end of January, by Federal Reserve Bank Chairman Alan Greenspan. According to him, the bubble of inflated U.S. share prices will burst and the values of Internet stock, which have risen to especially dizzying heights, will come crashing down.

At the beginning of February, in Davos, Switzerland, the head of Germany's central bank, Hans Tietmeyer, shared Mr. Greenspan's fears – but top international businesspeople on hand declined to join in the apocalyptic refrain. More than 80 per cent of the CEOs surveyed in Davos declared themselves optimistic about growth prospects for the next three years. No fewer than half of the 800 respondents expected to face growing challenges from nontraditional competitors using e-commerce to invade established markets. CEOs are taking the threat from cyberspace seriously. The Davos CEOs – by the way – were found to be active web surfers. Almost a third rated their personal Internet proficiency as excellent, and a quarter said they had spent more than ten days during the preceding four weeks surfing the web.

Be all that as it may, virtual reality has in all likelihood taken over the stock exchanges. Particularly in the United States, the skyrocketing share prices of Internet companies are at this point all about expectations, as opposed to substance. Sales of Yahoo!, for example, are running at about USD 200 million yearly, but the company's stock-market value is in the range of USD 40 billion. The size of the bubble is depicted by the fact that, in terms of market value, Yahoo! is now worth more than Boeing. Shares in Amazon.com's Internet bookshop rose in value by 966 per cent in 1998, even although the company's annual bottom line has yet to be written in black ink.

If share prices for the big Internet enterprises and the information technology corporations associated with them collapse, how great will the impact be on the economy of the United States and, indeed, the entire Western world? If the crash comes, who will pay the most painful price – ordinary citizens? How will Europe and Finland – an IT country tied closely to the global economy – survive with their burdensome welfare state models? Or is it again so, that we are not able to understand properly the sustained value of Internet-firms? It is totally based on desires and expectations. They can also be real ones.

In Finland the situation is at once somewhat similar and somewhat different, but a sudden drop in the value of information sector shares would affect our country without regard to such national differences. In large part, Finland's economy is running on the strength of one field and, within that field, one product – the flip phone and its associated infrastructure. Of our exports, almost a fourth will soon be from the telecommunications sector, led by Nokia. Without Nokia, our stock exchange would be lifeless. According to Managing Director Jorma Ollila, Nokia had a "historic" 1998. Total sales increased by more than 50 per cent and profit by 75 per cent. The company became the clear world leader in the manufacture of cellular phones. If Nokia's growth continues at 30 per cent a year, total sales will be greater than the entire state budget by summer 2001. Nokia's 1998 sales were almost FIM 80 billion, which is close to 15 per cent of Finland's GDP.

Almost every fourth cellular phone sold last year was a Nokia product. Nokia differs from the U.S. e-commerce companies in that flip phones and telemessaging systems are genuine commodities – metal, chips and demanding engineering in every millimetre. The demand is real. The growth potential of communications and IT fields is immense. Right now there are only 250 million flip phones in the world, but there are expected to be 1 billion users by 2005. Fewer than 1 per cent of the world´s people have Internet connections. Only 15 per cent of the world's office workers have personal computers, and of them only 10 per cent have Internet e-mail and 7 per cent access to the worlwide web. Finnish electronic products thus have and have not much to do with the virtual world.

We should note, however, that zero growth, or even shrinkage, is meanwhile being forecast for other sectors in Finland. Even in telecommunications, we can perhaps discern a feature considered universal in today's production and economics: in the global competition, it is more and more clear that there will be only one winner. The United States' Motorola, which had long led the worldwide statistics, has been forced to dismiss tens of thousands of workers. Sweden's Ericsson announced on 25 January that it would eliminate 11 000 jobs within two years. The company employs 104 000 workers, of whom somewhat fewer than 45 000 work in Sweden. The reduction thus represents 10 per cent of the total payroll. However, both Ericsson and Motorola are concentrating on new products in the field, so that the competition will continue as before – mercilessly.

Giants of information technology (including Microsoft) are all working hard for new Multimedia-products. For instance, Nokia´s Personal Mobile Multimedia (PMM) means that you can have PC, Internet, e-mail, fax, pictures, graphics and other multimedia services in the same mobile. Applications such as mobile multimedia team collaboration and wireless videoconferencing will be commonplace and electronic commerce will boom. There will also be an ever-growing variety of information and entertainment packages available to consumers on the move as well as a wide range of sophisticated personal, location-based, interactive servicies.

But, competition is really hard. Perhaps the Committee for the Future, in its latest, 1998, report, offers us some wisdom: *"Big fish swim in still waters. It is good to flow with the current, but new and great discoveries may be made elsewhere. Whoever is one stride ahead of the pack, as the century closes, in the leftover sectors of the late 1900s, will be at least as big a victor as whoever takes the IT laurels – the object of the great race in all the developed countries."*

7) Would a broad sense of stakeholding in the world of the stock market help people to understand, and thereby to promote or resist, the development and impacts of the new information economy?

A few Finnish news items from this January. The country's largest producer and distributor of food products, Valio, announced at the beginning of the month that, even after its most recent rigorous downsizing, it would be dismissing another 500 workers. In the paper industry, so important to Finns, the new, global enterprise born of the merger between Sweden's Stora and Finland's Enso is dismissing thousands of workers, even although Enso had already got itself down to fighting weight before the merger. By international standards the numbers are small, but, taking into account the cutbacks we have already seen in other sectors, almost every family will feel the pain of the international competition's downside. In the wake of the dismissals, the financial status of the companies is improving.

In the Nordic countries and many countries in the heart of Europe, business operations have traditionally been domestic, state-supported and family-based. Even when an enterprise has become a listed, international company, domestic ownership of the share capital has been considered vital. The 1990s have seen a great change. The most successful companies are now global in terms of ownership base, too. In Finland we have seen that happen even with our banks. In Sweden, the Wallenberg family, which for decades has been at the heart of economic life, has lost partly its position as an owner. The auto industry – the pride of Sweden – underwent the change most recently, as Volvo merged with Ford.

What do the impacts of mergers in the global economy have to do with the theme of the congress? A lot.

It is one assumption of democracy that the people must have some sort of understanding of issues. A grasp of the economic and social changes wrought by the information society and the digitalized global economy will be best enhanced if the people themselves participate in the economy's functions. We need personal experience. Through such experience and understanding, one can then take a real position, pro or con, on the issues.

In order for Finns and Europeans in general to be able to understand our era's characteristic big-business mergers and downsizing, for example by utilizing modern information technology, ordinary citizens would have to own stock, too. Through their own stakeholding, people would become familiar with the operating logic of contemporary business. There would be more realism. As things stand, only about 10 per cent of Finns understand stock-market investing well, and only about 5 per cent understand mutual fund investing. 60 per cent of money of the Finnish families is kept in a bank. Naturally, there are many obstacles for "new shareholding". Every Finn knows that in Finland you have to pay a lot for housing, especially when most Finns own their houses or apartments. In a very new study it came out that in Sweden people reach the standard of housing they desire at the age of 40, in USA at the age of 30, but in Finland it takes a lifetime.

It is quite another question whether, on the basis of one's information and experience, one accepts the strict production and rationalization requirements of the increasingly tough international competition. Opposition also derives power from both an understanding of issues and control over the course of events. One can for example demand balancing mechanisms, buffers or protective devices to forestall or lessen the corporate economy's impacts, which are undeniably unhealthy from the human perspective and, in the longer term, are destructive from the standpoint of the national economy, too.

8) Can we accept values of global economy or methods of an american-style corpotative governance?

I would like to continue a little bit with values of information society. In simplified terms, the fundamental difference in ways of thinking – depending on whether one is a worker or a stockholder – can be depicted as follows. An ordinary worker who has no personal interest in the corporate or national economy considers the aforementioned mergers, dismissals and automation unjust and wrong, while the companies are in the meantime bringing in bigger and bigger profits and doling out surplus millions to reward their directors. The worker naturally views matters in terms of job security. Shareholders are obliged to monitor competitive situations in the global economy. Since they are seeking a return on the money they have invested, the shareholders demand that the firm produce a profit and not waste money: unprofitable production must be eliminated. From the shareholder's viewpoint, wealth is maximized by reducing the firm's operating expenses. The means to that end include eliminating jobs and refraining from investment. Extravagant option schemes for directors are viewed as improving the financial result.

Researchers in the field speak of two diametrically opposed business management formats (corporative governance): the U.S. system, which is based on maximizing the return to shareholders; and the German-Japanese system, which maximizes benefits to stakeholders. The U.S. system is characterized by the centrality of the stock market, the broad dispersion of ownership, strong and demanding institutional owners, effective protection of minority shareholders, corporate takeovers, the independence of board members, and high-powered management-incentive schemes. The German-Japanese system is characterized by the centrality of banks, concentrated share ownership, bank ownership in other companies, cross-ownership of companies, company representation on the boards of other companies, poor protection of minority shareholders, and the possibility for stakeholders other than shareholders to participate in and influence decision-making.

With the legalization of broad foreign ownership, the U.S. model has found its way to Finland. Up until the mid-1990s, annual reports from listed companies talked about trying to increase self-sufficiency and customer satisfaction while seeking growth at the same time. The 1997 reports indicate a change: the quick growth of the value of shareholders' investments and creating added value for owners have emerged as the primary objectives. Lay-offs and dismissals, widespread criticism of option arrangements, a breakdown in the oversight of management functions, weakness of investment, and, especially in the case of research-based enterprises, the impatience of owners have become problems in Finland.

In Finland, as in many other northern countries, we are used to some kind of state-ownership or anyway strong democratic control also with economy. Finland has until end of 1990 been in OECD's or UN´s statistics one of the most equal country in the world measured by incomes, wealth or capital. In this new era of global markets, virtual commerce in cyberspace and EU, there are quite new phenomena, which most of Finns feel are against Scandinavian welfare-model and its common values of fair and equality. One is huge salaries or special options of directors in the Finnish firms, which act globally. Another one is the gap between national politicians or civil servants and those who work for EU. These two elite-groups earn such a big sum of money that Finnish people cannot understand it.

This conflict is connected strongly to new values of information society. It is said that solidarity is certainly not a basic value in the beginning of 21st century. The Committee for the Future has discussed about this problem as a trouble spot in the welfare system (in the latest committee report 1998 under the title A change in social solidarity?)

9) Is there any possibility for small intellectual units among global giants?

It is said that at this time of Internet innovation is more and more important in the global economy. It is also said that most valuable innovative thinking is happening in small units. Most creative intellectual work needs an atmosphere free all those factors typical to global giant firms – press of

results, tight competion, foreign ownership without other commitment than money, many levels of decision-making, hierarchy. Isn´t this totally contrary to a present wave of global fusions and corporate mergers? Perhaps there are two levels of digital economy. Ideas flourish at the level of young people working as free as possible in small units. When ideas and intellectual products need a support of the big money for R&D, applied technology and marketing, the work is moved to the level of global giants. This kind of new share of work is possible in information society better than ever.

10) Is it true that, with the Internet, e-mail, cellular phones and other gadgets, our every move can be monitored, our every conversation overheard?

The congress did not deal extensively with this issue. Each one of us has read very convincing articles and reports (the EU's, for example) on how technology makes it possible to overhear, report on and record everything. Many new-technology devices and systems were originally developed for military and security-policy purposes.

So who's in control? Will ownership of the secrets of information technology determine who runs the world? Here again, the question is one of democracy and fundamental human rights.

11) Aren't Internet offerings which people find attractive important in the initial stage?

It has been forecast that, by the beginning of the 21st century, virtually everyone who is working and anyone who needs services will have to know how to use a computer to look for information and take care of personal business. The Internet is a good means of increasing equality – but only when people use it.

Every fifth American uses the Internet to get the daily news and weather forecast. Demand for local news has increased the most. In 1996, only 27 per cent looked on the Internet for information on local events. In 1998 the figure was 42 per cent.

Many Europeans, accustomed as they are to national and international news in their own countries, have been horrified at the provincialism of U.S. news reports and, having seen the above figures, will be further horrified at the Internet's negative impacts. The essential point, however, is that a majority of the population, young and old, have become acquainted with the computer and modern technology. If people do not consent or know how to turn on a computer, as is often the case in many European countries, they will never be able to look for valuable, high-quality information, either. First, the initial threshold must be crossed – then we can talk about raising the quality level.

If ordinary people – the majority of humanity – are interested in local issues, they must be given local issues. Nothing will prevent providers from offering mathematics lessons as distance learning at a subsequent stage.

12) Is there any reason to stop the introduction of electronic citizen's cards?

Civil servants, especially jurists, are concerned about the deleterious impacts of the electronic business-transaction cards and citizen's smart cards which are now under development. Threats are being seen with respect to security, equality, employment and many other questions. For these reasons – and, moreover, in view of popular resistance – Denmark put an end to its interior ministry's citizen's card project on 1 October 1996. Opposition has been evident in Sweden, too. In Germany a law has been drafted on the card project, while the EU has for years been preparing directives whose basic concern is reliability.

As always with technology, you cannot stop the development by norms or by politics. When in Denmark and in Sweden politicians and authorities in public sector rejected or criticized the electronic citizencard-projects, the work continued in privat sector. At the moment there are a lot of unofficial

co-operation especially between Finnish, Swedish and Norwegian innovators. I suppose the system of electronic citizen's card will be functioning after some time very broadly in Scandinavia.

In Finland, the Council of State decided in principle, on 5 February 1998, to introduce an electronic citizen's card for all the Finns. The program is presently under preparation at the civil-servant level. The card will be in action on 1st December 1999.

Juridical tenability is an important issue. We should remember, however, that cards are already in use in private commerce. I learned personally how far the United States has gone in the use of credit cards when I tried to book a hotel room without one. I gave up my Visa card five years ago, considering it unnecessary baggage. I've used cash and fared well on numerous journeys in Europe and Asia since then, enjoying my trips without worrying about the loss and possible abuse of credit cards I did not have. I had to get a card again, however, when I couldn't even book a hotel room in Washington. I tried to pay cash at the hotel's reception desk, but that didn't work.

In Finland as elsewhere, people are already buying plenty of things on the Internet. Our family buys all its shares – not a great number of them, admittedly – on the Internet. Questions of law, security, equality and privacy have sometimes entered my mind, but the benefits of saving time and money, for example, have been too great to refuse.

The same goes for public services. If the benefit to the citizen is indisputable, it is wrong to forestall progress on the grounds that the system is not idiot-proof. The problems simply have to be solved quickly. They can also be resolved as they appear. If we suppose that we shall first plan out everything to fit in nicely with the fine print of the law, progress will grind to a halt. That leeway may not exist in Finland or Europe generally.

The citizen's smart card is only a tool, but it will be indispensable, if we wish to enhance services and equality while at the same time taking the scarcity of public resources into account. Canada has gone the furthest in transferring public services to the Internet. The Canadian Government concluded a few years ago that there was no more money and ordered the Dominion's offices and departments to combine functions and utilize opportunities for transacting business electronically. The order went out to the local level: *"You may organize yourselves as you wish, establish citizen's service kiosks, work with banks and the post office. It makes no difference how you do it, if it works."* The benefit derived from the closure of useless offices and the elimination of costly, time-consuming bureaucratic handling appears to have been substantial.

Is there any accuse to avoid using electronic citizen´s card? It will be more difficult every day. In the near future in almost every home you have anyway some of the technical tools – PC, television or mobile-phone – for handling your business or administrative affairs by electronic cards. Savings of bureacracy are huge. It is estimated that minimum costs of a worker at the level of customer-service in public sector is in a year 300 000 Finnish marks (60 000 dollars). What could be acceptable grounds for loosing taxpayers money for slow old-fashioned personal services that can be easily, equally and in time given via Internet for active citizens who can use modern technology ? We need personal service much more for children and elderly people. I do not deny the difficult and sensitive problem of employment, but I do not believe that the solution is in old-fashioned structures.

In the opening session Keith Todd (ICL) urges Parliament's Committee for the Future to delete from its report a statement which demands that Finland be developed into an information society laboratory. People rarely want to live in laboratories, he notes. I am not so sure about it. Globalization and modern technology has been a great success for Finland. We have got a new kind of welfare. I think we Finns are living already in an information laboratory.

It is said that Nokia needs home market – 5 million Finns – to test its new products of telecommunications. More important is to test new ideas for future products of information society. Finns are one

of the world's best educated people. They are keen on new technology, young and old. It is important to remember that we are not talking about a laboratory for biotechnology or medicine. Information technology could not harm anybody. It is made of metal, engineering and knowledge. As an example from the Finnish information laboratory concerning electronic citizen's card and e-commerce, which was launched just when I was writing this text, is a digital signature.

On Thursday 18th February Sonera, Finland´s largest telecommunications operator, announced the introduction of the first-ever digital signature technology for wireless networks based in the SIM card found in mobile handsets. According to Sonera, the new technology makes possible both the reliable identification of a customer and the encryption of message content. For instance the banking and finance sector has been very interested in digital signature concepts because banking services, which are rapidly shifting their focus to the Internet, require highly-sophisticated security solutions.

13) Citizen´s smart card – hasn´t it connections also to electronic commerce?

Attitudes to modern technology are important also when we talk about possibilities of electronic commerce and about ways to control it. If we in Europe or in Scandinavia are making too tight rules for commerce via Internet or other electronic tools of business, we are perhaps closing doors not only for modern commerce and technology but also for customers.

The value of electronic commerce in the world was in 1998 150 billion Finnish marks (30 billion dollars). It is estimated to be 10-times bigger after some years. Internet has made it possible for everybody to bye and sell without frontiers.

It is basically a question of interests of customers and citizens. Electronic commerce widens freedom of choice and it brings down prices. If laws and rules are too complicated and tight for instance because we try to use same rules for electronic commerce as with normal commerce, it is a customer who will suffer most.

14) Will Europe's excessive respect for the law and humanism hinder the continent's development?

Europe offers numerous examples of how our firm tradition of respect for the law and humanism hinders development. Sometimes that hindrance has worked to the good, but perhaps more often it has not.

The activities of the European Union are almost exclusively a matter of jurisprudence. The EU's substance, procedures and modes of guidance are juridical – and it is here that one of the most dangerous threats to the 21st century information society and its economy lurks. In the name of democracy, humanism, and the agendas of all manner of individuals and interest groups, Europe is creating too many barriers to the creativity and innovation which are prerequisites for prosperity.

I'll take a few examples from this decade. I haven't determined how true the widely presented claims are, but they appear to have some substance. When I was doing a year of research work in Germany at the beginning of the decade, all of that country's political parties, at the instigation of the powerful Greens, were criticizing developments in biotechnology and genetic research. Competition bans for athletes were issued; orders, restrictions and instructions were given; and the citizens were roused to oppose research and product development in the field. The biotechnology industry very quickly moved its production and, especially, its research and product development out of Germany and, indeed, just to be safe, out of Europe altogether. In no field do prohibitions stop research. The activity simply seeks out an unrestricted environment somewhere else. Innovation, creativity, science and research require freedom.

I asked some experts why telecommunications and information technology have progressed vigorously in Finland and Sweden, in contrast to Denmark, where the foundation is similar. I got the following

sort of response. In the early 1990s, when research and production in the field were seeking a location, Denmark had a strong need to regulate IT more strictly than even the EU directives did. Experts in the field left the country. Companies didn't dare take the risk that Denmark imposed. They invested instead in countries where the legislation was lax.

I suppose Finland has tried as carefully as possible to regulate the information sector appropriately. Care has been taken to avoid enacting any norms more restrictive than the average in EU countries; at the same time, Finland has never sought, through excessively lax regulation, to give the image of a cheap country. Confronted by such an image, exacting research and product-development investors accustomed to top expertise, good infrastructure and dependable, incorruptible administration go elsewhere.

15) What does new IT business and investment activity demand from the target country?

In information technology, quality is an absolute requirement. The same holds for many other fields, since, in the global competition, the best in the world will not be produced without the best education, working environment, management, and living conditions – the best environment for oneself and one's family. The better-educated the experts in the firm or field, the tougher the demands that will be placed on the place of investment.

On 1-15 January, U.S. Vice President Al Gore held a major global forum in Washington on reinventing government. One of the leading ideas was that investors today are demanding a safe target and environment for their investment money. For example, both the public administration and, more generally, the infrastructure which the government cares for and which guarantees quality must be in order. In this context, the undisputed advantages of the Nordic welfare state model came up. While Denmark, as a Nordic country, may have absorbed some criticism earlier in my remarks, the Washington forum spoke of Denmark as a model country. As an incorrigible sceptic I must however remind you that we need to determine whether payroll deductions from a declining number of young taxpayers in the Nordic region will suffice to defray the social-security burden which is falling on them – especially if international businesses assume that they're getting a free lunch.

The capital accumulating in the Western countries – in the United States, the pension funds being piled up by an increasingly wealthy aging population in particular – is taking an ever closer view of whether, for example, the country in question is corrupt or not. The more vulnerable the expertise capital, scientific knowledge and research in question, the more exactingly this impediment to successful business operations will be investigated and assessed before the investment decision is made.

16) What sort of structural reforms in social policy should be instituted so as to enhance equality, or at least its prerequisites, in the information society?

At the congress, the President of Republic of Finland, Mr. Martti Ahtisaari said,

> *"I shall take one example of a matter on which I have not yet reached a conclusion of my own. In order to increase equality, it might be a good idea to begin teaching all Finnish children aged three to four English alongside their mother tongue at kindergartens. If we think of the best interests of the nation as a whole, a good command of English could be nearly as important a precondition for equality in the digital global economy of the 21st century as universal literacy and elementary education for all were in the past."*

He added a number of understandable doubts, asking for example whether the future competition will be so tough *"that we shall have to harness our children into intensive training while they are still toddlers."*

This idea warrants thorough analysis, the more so in view of the huge fear in Finland that only the smartest will survive in the information society. Lately there have been very few structurally oriented proposals designed to ensure equal economic and social opportunities.

Some years ago, when I visited Singapore with the Parliament of Finland's Labour Committee I was impressed with some of the very structural reforms they had made with the information society in mind. One such reform was summarized by the slogan "Excellent English language skills for every child." My hosts told me they teach children English in kindergarten. The aim is to guarantee every citizen the same basic skills in a modern world. English is the language of trade, science, global business, banking, communication and, of course, the Internet. Singaporeans told me that their children learn excellent English easily by playing and singing, without any kind of stress.

Singapore is ranked consistently by the World Economic Forum as the most competitive nation in the world. It has created in a short time a fine information technology infrastructure and a per capita income exceeding that of the United Kingdom. Opinions differ how this small island, which in the middle of 60's got its indipendence from Britain and the Malaysien federation, could in thirty years become a leading global entrepot and a center of asian information development. One explanation is common: the powerful leverage of brainpower and human capital, and the virtuous circle of investing in the knowledge stock of its people. Singapore is a remarkable success in spite of that we in Europe are very aware of problems with democracy and Singapores´totally different kind of "law and order".

In Helsinki, I put my three children in a French school, even although my husband and I could only then speak simple sentences in French. When they began their schooling, at the age of five, my children learned to read and write French first – and Finnish only afterwards. No problem.

One example more. This time it is an effort to support by politics structural social innovations. U.S. Vice President Gore stated at the end of January that, with the IT^2 project, the Clinton administration would put an additional USD 368 million into IT development. The aims include putting a PC in every classroom and introducing an Internet a thousand times faster than today's, for the use of science especially.

A rational idea?

17) Do U.S. attitudes constitute an impediment to the development of information technology in Europe?

I've never studied or worked in the United States, and have no other ties to the country. I take a critical view of many of the country's social arrangements and developmental features. On the other hand, I openly admire certain features of the United States, a huge and diverse nation of 275 million. The object of my admiration is the skill with which science, technology, the economy and job creation have been forged into a mutually supportive structure that has increased wealth and well-being in the 1990s, in spite of the worldwide recession of the early 90s and the more recent economic crises in Asia. I concede at the same time that this feature, more closely examined from the perspective of Nordic social equality, involves many problems. From the ordinary citizen's viewpoint, however, the most important thing is the right to work, to be useful – and only the United States has been able to fulfil this basic need for its citizens.

I am not now talking about how democratic and equal has been the distribution of results of work, income and success.

I understand the sharply negative, repudiating attitudes which Europe's political leaders, civil servants, researchers and other influential persons take towards the U.S. social model – but I do not understand at all why we should close our eyes to the country's success in technology, economic life, and the world of information. I'd like to cite a few recent examples from my own life.

When I was training at the European Union for three months in the summer of 1998, I was amazed at the uncommunicativeness associated with data systems, expert networks and information in general. It seemed that, for the EU civil servant, the world ended at the shores of Europe. Yet, in those matters of future importance which I was following more closely in Brussels, it was obvious that the most

sophisticated models and the latest information were coming from the United States. Since the civil service did not even have sufficient technical links – including the Internet – how could the content of the new internationalism even have reached Brussels? When I was doing preparatory work in Brussels on themes for the POLITICS&INTERNET Congress, and was looking for speakers, I often, without at first noticing it, wound up asking myself if the U.S. people were getting too much speaking time. The pressure came from around me. It is said that when a major international seminar is being organized in Finland, and especially if the EU is helping to defray the costs, a special view is taken of both U.S. experts and even Finns who are working as researchers in the United States as well as Finland. The balance is important. Please note here that the POLITICS&INTERNET Congress was funded by the Finns.

The desire to defend European values and one's own language and culture is most firmly established in those European countries that can boast of a glorious history as superpowers. By contrast, in the Nordic world view, one perceives a desire to defend this very young, Nordic, state-driven social welfare model, which the U.S. model is seen as displacing, by treating the whole subject as something negligible: if we aren't talking about the problem, it must not exist.

Information and skill know no frontiers, no shackles. If we close off access to information, deny the chance to excel, and avert our eyes, ears and minds from understanding and wisdom, we shall return to the Dark Ages.

Especially in the information society of the 21st century, Europe will not be at liberty to leave unutilized any information, ability or expertise – whatever social system it comes from, whatever its language or cultural context. The competition has been, and will continue to be, merciless. Once its economy is in order, a society can promise people other good things – unless it consciously decides to get off the treadmill of competition and know-how.

18) Isn't it also a question of power and hegemony?

When we ponder the issues and drawbacks of the Internet and information technology in general, we find ourselves discussing power, leadership and hegemony – age-old issues indeed. In the background, meanwhile, the battle rages. Why? The information revolution is affecting power in terms of resources rather than behaviour. It is said that in the 18th-century European balance of power, territory, population and agriculture provided a basis for establishing armies of foot soldiers. France was a principal beneficiary. In the 19th century, industrial capacity provided the resources that enabled Britain and, later, Germany to gain dominance. In the middle of the 20th century, science and especially nuclear physics contributed crucial power resources to the United States and the Soviet Union. Broadly defined, information technology and knowledge management are together likely to constitute the most important power resource in the century ahead.

Summa summarum. In responding from a Finnish perspective to the question which the title of my article poses on the prospects of the Nordic welfare state model in the information society of the 21st century, I would note that no model is so good that it does not need to be changed when the world changes. Further, as a small but flexible modern society, in which faith in knowledge is strong, Finland should try to combine the best aspects of the U.S. and European information societies. Contrary to what we might at first glance assume, this path will demand constant choices, and they will by no means be easy ones. There are no ready models, and I would not urge a reliance on authorities.

The problems are manifold. The role of politics is not an easy one. That is why it is very important that we have in the Finnish Parliament the Committee for the Future.

In Finland at least, the engineers – IT engineers in particular – have made good use of their innovative talents. They have pondered and experimented, renewed themselves and invented new things. In many fields they have also rationalized and in all respects rejuvenated long production processes from

beginning to end, very efficiently, in terms of the assumptions and objectives of economy, production and technology.

My desire to get those who ponder social issues moving, like engineers, on information society questions is based on my feeling that, alongside the technological innovations, we sorely need social reforms – the more so as technology and the economy become ever more dominant. The role of government and civil servants in the work of social innovation is demanding for the simple reason that there are plenty of influential civil servants. Both politicians and civil servants exercise power vicariously over other people. For that reason they also have a greater responsibility for the future we all share.

The Committee for the Future suspects that even the whole information society undertaking will fail in Finland if we progress only in the realm of information technology and the society as such fails to renew itself in concordant fashion.

There continues to be a great need for democracy and work. For that reason, let me end my glimpse into the world of the Internet with a statement from the Committee for the Future's web pages:

> *"What love and democracy have in common is that we all want them, but seldom understand that we must work hard for them."*

(N.B.: This article does not necessarily reflect the views of any of the 17 members of the Committee for the Future in the Finnish Parliament)

FOURTH DAY

SATURDAY
JANUARY 9, 1999

JYVÄSKYLÄ,
OULU AND
TAMPERE

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Selective Privacy Issues in Information Society

"Privacy is like expensive crystal: beautiful when intact, fragile, and, infeasible to reconstruct once chattered."

(Ralph Spencer Poore, 1998)

Abstract

In this paper we at first define the term privacy. After that we take a practical case in which the people in German railways were fighting against criminals in December 1998. The other cases discussed here are the citizens, computer users, elderly people and politicians. The research perspective area is from information security.

Keywords: Privacy, Information security

1. Introduction

In information security area we are interested for systems completeness and validity, users authentication and systems access constraints in traditional model of controls. The main dimensions are confidentiality, integrity and availability. We could expand the traditional model with three other dimensions, which are possession, authenticity and utility (Parker, 1995).

The term privacy has three different meanings, which are important in information society, especially in trusted environments. Those are (Longley & Shain, 1989):

- The right of an individual to self-determination as to the degree to which the individual is willing to share with others information about him/ herself that may be compromized by unauthorized exchange of such information among other individuals or organizations.

- The right of individuals and organizations to control the collection, storage and dissemination of their information or information about themselves.

- In data security, the right of an individual to exercise some form of control both over the information that is stored about him or her and the personnel that are allowed to access such information.

It is a cause of severe concern among many communities particularly when the development of information technology facilitate collection, correlation and distribution of sensitive personal information. The legislation governing such activities varies conciderably from country to country (Longley & Shain, 1989).

In this presentation we have following case topics

- Privacy as a tool against criminals
- Privacy loss a as threat of citizens and computer users
- Privacy and elderly people
- Privacy and legislation

Earlier we worked with manul systems. If we discussed about money, it was quite easy to say: “The money don’t have a smell”. Using electronic money it is in some cases easy to follow money transportation and in the same way the human behaviour.

2. With privacy against criminals

In Christmas time 1998 they had very serious problems in German railways because criminals threated to distroy the railway traffic, if they didn’t get a lot of money. The police and army worked together, one case was that high-speed jet airplane flied before the train with dark sight camera for finding the barriers on the rails. Now the criminals are catched down, but in the same newspapers there was a text from an earlier case happened in Italy last year. There were motor highway banditos and the solution was founded by using US Army satellite pictures. They could find the register numbers of banditos’ cars via satellite and catch the criminals.

It’s easy to accept the privacy control with criminal cases, but in the same way we could understand, that someone always could control all our activities. Nowadays we are not alone.

In entertainment we have new films which are presenting satellite control and spionage. The film stars are just now wondering the young specialists working in military security area. One discussion was in television news in December 1998. Film stars asked how so young people could work in the military area with very strong duties and responsibilities. Should we other ask the same?

3. The privacy of citizens

One starting point to privacy issues is to serve individuals. At first a part of bank transactions was transferred to computers and to smart cards later. Earlier the people using their money could be anonymous, nowadays there are many viewpoints to observe money users. We could follow electronic money easily with computer networks. In the same way we could follow the bank office operators working efficiency.

Now we have banking automates on the streets, we need camera controls and other security mech anisms. The smart cards are changing for multipurpose usage. The business organizations are collecting many kinds of different knowledge of our activities, not only from our money transactions. They have very large databases, what happends, when someone is connecting different data from some single person? Now we have our organizations in control, but in the same time we could ask, what happends to the human beeing? We try to get more services, but we have lost a part of our freedom, a part of our privacy.

In big warehouses they have registers and member cards for clients. The clients use their member cards and they get discount from their shopping. But in the same time the people in warehouses collect their new registers about the behaviour of the clients. They could esimate the volymes and the storage ranges, but they have the possibility to estimate, what the clients would buy next. With special prices they could control the behaviour of the clients.

We can ask, what to do with those big databases? After collecting them someone could use them to direct reclames or for changing information, maybee for selling it to outsiders.

We have more privacy threats in next future because of electronic money, electronic data interchange and electronic commerce. We could ask, where is the balance between all this serveability and the privacy? What is important? Is it the privacy and security? Or is it the business?

4. The privacy of computer users

Computer users have their basic knowledge about information security. The main threats are viruses, hacking, spam and piracy. In organizations they must follow the guidelines and technical mechanisms. Information security awareness is the first step to better solutions.

Special areas to security and privacy discussions are e-mail, Internet, intranets and communicators.

Using e-mail we must remember the nature of this media. E-mail is an easy way to communicate with people, but there are always many risks when we are using this media. We could make some writing errors in addresses and the systems are quite sensitive to technical errors, too. If we have some confidential message, we must encrypt it, or we must use some other transportation media. Using e-mail the message goes through networks via many server computers. If you only destroy the message from the start and the end points of the route, there are still many other servers from which the specialists could easily get the message.

Internet is a good possibility to send information and to communicate with people. If you use the Internet with special knowledge, it could be a very good and efficiency tool. But without experience it could be a terrible area. We could ask, who had the responsibility for the Internet? No one. We must have guidelines and policy ready before we are using the Internet as a tool of our business activities. Earlier we had espionage in places, where they developed new technical solutions. Nowadays espionage is in a higher level, they only use Internet, where ever they are. That's why it's very important to follow the security guidelines. One area is the privacy protection. In the level of one single people there should be no personal knowledge. No home telephone number, no home address, no birthday, no photos, no hobbies. You should be very careful with homepages, because of your privacy. Nothing extra is needed. In the level of organizations there are many new possibilities via Internet, but you must be careful with the lists of enployees, we have some examples of unfair business operations and social engineering. Maybe in future a lot of the operations of business organizations are working in privat Internets, we say in intranets. In mobile communications we have communicators connecting the mobile phones and portable computers working in Internet. In this area we need security solutions before the wide spread.

Now we are discussing from the cyperspace solutions (Bequai 1998, Poore 1999). Many sites require users to register before using them. In some sites a credit card number is required "to prove your age". What do these "free" sites do with this data? What if they sold it? How would the user know? It's always a risk when using a credit card for any purchases (in person, over the telephone, through the mail, or over the Internet) (Poore 1999).

The computers connected to Internet could ask following data (Poore 1999):

- Zip code
- Date of birth
- Gender and age
- Marital status and number of children
- Income level (multiple choise by ranges)
- Membership of organizations (multiple choise)

The US Electronic Communications Privacy Act makes it a federal crime for anyone without authorization to intentionally access any facility through an electronic communication service is provided; or to intentionally exceed an authorization to access a facility and thereby obtain, alter, or prevent authorized access. The act requires, that employers advice their workers that electronic communication systems must be used solely for business purposes; that data stored and/or transmitted by them is to be threated in a private and confidential manner. A company could find itself civilly liable for privacy abuses over the Internet by its employees (Bequai 1998).

The American legal system supports the ancient legal doctrine of attorney-client privilege, which establishes that conversations and materials sent between the attorney and the client are confidential. The attorney-client priviledge allows the client discuss legal concerns candisly with his attorney and receive sound and accurate legal advice, knowing that the court cannot force the attorney to disclose any information or documents (Freeman 1999).

E-mail and other electronic methods of transmitting information are valuable resources for spreading attorney – client communications. Attorneys must be aware of the risks and must take proper steps within their offices to ensure that a breach of confidentiality does not occur (Freeman 1999).

5. The privacy of elderly people

One very sensitive area is the group of elderly people. At first we must have computer aided services via networks, after that security solutions. But what's comming next? We need computer ethics, we need moral and values. We wish we all are some day a part of the elderly people.

One idea is that we could have a multilevel solution for elderly people.

1. Alarm devices for those elderly people, who have no difficulties with their healthy and who don't want any special control.

2. Moving detection devices for those, who have difficulties, but who could make their daily activities without outsiders.

3. Camera control only for them, who have serious difficulties for their healthy. But we could leave them alone with cameras and electronics, the human help is very important.

Working with elderly people some organizations would save the money and services, human work. In some cases they try to transmit activities to machines. Earlier they applied healt care services in Japan to intelligent robots, but in those days they had not enough people to do healthcare services, but a lot of money. Nowadays they have unemployment in Japan, too.

We have heart many discussion from devicing the special technical scemes, a lot from ethics, too. We can use computers and networks for elderly peoples healthcare, but the responsibility is always in the human side, the computers and other tools are only for helping.

6. Politicians

In the way to the global information society individual privacy is a risk. The EU direrctive on data protection as well as privacy laws of many western states require basic privacy principles to be guaranteed when personal data are collected processed such as (Fischer- Hübner 1997):

- purposed binding (personal data obtained for one purpose should not be used for another purpose without informed consent)

- necessity of data collection and processing (the collection and processing of personal data shall only be allowed, if it is necessary for tasks falling within the responsibility of the data processing agency).

In the global information society privacy cannot be efficiently implemented solely by legislative means. Data protection commissioners are therefore demanding that legal privacy requirements should be technically enforced and should be a design criteria for information systems (Fischer-Hübner 1997).

The Canadian covernment announced its new policy on crytography in October 1998, as part of its strategy to make Canada a world leader in e-commerce by 2000. The policy aims to develop e-commerce opportunities, to establish Canada as a leading exporter of cryptography technology and to provide appropriate legislation to protect public safety (Hancock 1998).

The government of Finland has passed a law supporting the free trade and use of cryptography products. The Finnish government voted unanimously in favour of the use of encryption to protect confidentiality. In addition, it voted against legally imposing mandatory key recovery system. The covernment is anxious that the national cryptography policy would not inpede Finland's export industry (Hancock 1998).

Only in criminal cases does the state reserve the right to access telecommunication messages. While the defendant will not be legally obliged to supply a key to encrypted messages, the courts may require the manufacturer of the cryptography software to provide the system key. The Finnish Parliament is currently debating a privacy bill, which is expected to become a law in the next few months. If passed, it will enable citizens to use whatever technology they deem necessary to protect the privacy of their telecommunication messages (Hancock 1998).

People might wonder about the balance between good and bad in the Finnish cryptography policy for improving exports. By incorporating security enhancing features in their products Finnish companies may gain a competitive edge. But the fact remains that some criminals have more financial possibilities of obtaining security applications than government officials! It is not easy to do business with security products, but people in this line should never do business with criminals. In addition, signing of the Wassenaar contract in December 1998 will impose restrictions on the international trade on security applications.

The Finnish Parliament is discussing and handling following areas:
- A Proposal to the Law for Protecting Privacy in Personal Data Processing
- The Law from the Publicity of the Authorities
- Personal Data Law

These topics are more for citizens and for our better information society. The developing work should always be co-opetation with technical experts, software specialists and politicians with response of legislation.

Conclusion

All the people, young, adults and elderly people, we need privacy protection – are we working in public area or not. We are comming back to the discussion of management: who is the leader – a human person, a computer, or in the worst case – a criminal with computers. We need the protection of our privacy.

In different areas we need different privacy knowledge. Besides the solution we have we should have many new solutions and the situation is never ready, the work for privacy and widerly for information security is continuing without any brake points, it is important for us all.

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Local Partnership for Prosperity and Welfare – Shaping Localities in the Global Information Society

Introduction

What is the phenomenon we call knowledge or information society?

A firm belief of our times proclaims that in all areas of society traditional centralised, hierarchical, and fixed modes or types of co-operation are replaced by decentralised, heterarchical, network-like structures. Furthermore, flexible, organic modes of social interaction are seen to stress the need and possibilities for adaptation, innovation, interaction, and learning.

These new "quasi-regimes" of social organisation and modes of co-operation are applied in all areas of society – within industry, in public administration, in the third sector, and even inside families and homes. Within the administrative and management literature these organic modes of co-operation and social organisation are traditionally considered typical for adaptive and innovative organisations, and for highly trained personnel (see e.g. Sutherland 1975; Mintzberg 1979).

Information technology and the information revolution facilitated by it are major factors triggering and giving boost to the restructuring of the social life. The task of our article is twofold. We seek to broaden the context of social processes influenced by the information revolution. Other way round, we also trace its foreseeable impacts on the local level.

We start by clarifying the contextual framework for the discussion on information society. Next we bring in some central elements from a process paralleling the evolution of information society: globalisation. In the following sections we raise some topics we have found worth discussing and of relevance in the context of the dawning information age while having analysed the developments on national, regional and local levels.

Contextualising the Information Society

The development of information society and the so called information revolution can be seen as based on the following three important interlocked social transformations. Together these – along with some other important ongoing processes of change, such as localisation and globalisation – are penetrating all arenas of our modern societies and transforming the social life in such a degree, that we have indeed a good ground to call this ongoing transformation as the development of an information society.

First, and the most fundamental of these ongoing social transformations is the changing role of information and knowledge in the modern society, and thus the informatisation of society. During recent decades information and knowledge have been coming increasingly important factors of

production. To collect, organise, select, synthesise, and distribute information (see Sviokla & Rayport 1995) are coming more and more important driving forces for the economic productivity and the prosperity of our societies.

Based on this development societies are increasingly labelled as information (e.g. Toffler 1980) or knowledge societies (e.g. Drucker 1969; and Stehr 1986; 1994). As the economic activities are increasingly based on processing information and knowledge, we are speaking about information or knowledge economy (e.g. Machlup 1962; Porat 1977), knowledge work (e.g. Drucker 1969) and knowledge-intensive organisations (e.g. Nonaka & Takeuchi 1995). In this type of society the success of our action is considered to be more and more dependent on our ability to develop our national, regional, local, and organisational systems of innovation (see e.g. Porter 1985) and our ability to exploit the so called virtual value chains (Sviokla & Rayport 1995).

The second important ongoing social transformation is the rapid development of modern information and communications technology and its increasing penetration to all areas of society and social life. Thus we can speak about the computer, telecommunications or microelectronics revolution and the computerisation of our societies (see e.g. Sichel 1997; Forester 1980; 1985). New devices based on microprocessors and digital technology are developed in order to process the increasingly important piles of knowledge, information, and – as most often is the case – just data. New computerised devices and software applications are continuously introduced to markets, to be applied in yet again new areas, contexts, and for new purposes.

Along with this development new computerised, digital technology is converging into the traditional technology and media – such as newspapers, printing, radio, and television – bringing about new forms and systems of integrated technology, communications, and media; and thus confusing the line between old and new, between the traditional and the modern.

The third important social transformation is taking place with the changing modes of social organisation and co-operation. Based on the increasing importance of information and knowledge, and the increasing number of highly trained knowledge workers and experts, also the forms and modes of social co-operation and interaction and the organisation of these activities within our societies are facing the change.

Globalisation, States and a (Hi)Story of Control: The Economy

Numerous influential members of the community of regional scientists and economists now tend to think that the spatial representation of global (financial) economy is assuming the form of regionally and locally run network society (e.g. Scott 1996). The system of three economic worlds – based on the division between the Western Capitalist, the Socialist, and the developing economies (cf. Hettne 1995) – should thus come to its end. This development has been significantly assisted by the end of the Cold War as well as the major role given to trade to alleviate the developmental gap between North and South.

Particularly developments in the "first", the most industrialised world, used to be controlled by states through their often complex doctrines of economic, financial and trade policy. The attempts to manage this complexity and to safeguard the state's sovereignty in the face of the globalising markets gave rise to the first world institutional representations such as the OECD[1], IMF or WTO – as well as EU in Europe. However, these arrangements, whether they formally are sets of agreements, forums for

[1] OECD – Organisation for Economic Co-operation and Development, headquarters in Paris, France
IMF – International Monetary Fund, headquarters in Washington, D.C., USA
WTO – World Trade Organisation, headquarters in Geneva, Switzerland
EU – European Union, Commission in Brussels, Belgium

discussion, or supernational organisations, have reduced their member states' degrees of freedom in important policy arenas. Decisions on important issues are more and more often made on supernational rather than national (or state) level.

But why regionalisation of the economic landscape may and should coincide with globalisation of the economic space? In the emerging model "regional motors" with a metropolitan centre as their nuclei form a dense, interlinked and multi-channeled net of interaction. Each of these metropolises have their own prosperous hinterland areas, obviously providing the centres with space-related utilities such as recreation or residential functions. Furthermore – and what is important in this particular instance – they also provide the centres with a wide variety of service and manufacturing industries, which is needed for making the regional economy flexible and diversified enough to thrive despite the external shocks.

A highly interesting phenomenon related to these features of globalisation is a turn from territorial states with their defined borders to process based spaces. States are no longer able of controlling or being in charge of the various aspects of economic development within their borders to the extent they used to be in the pre-global era. Instead, the major input of the states, in securing their citizens' well-being, may be to see to that the individuals are not excluded from the processes that mould the emerging form of the society based on networks and interaction.

Withering Away of the Borders of a Territorial State: The Polity

The traditional setting between two territorial units – e.g. regions, states or international communities – was largely based on borders setting their agreed-upon and thus accepted ranges of influence and competence. The border-related policies of these units varied from security issues to economic development projects – depending on the regional level in question. These policies were mostly defined in the one unquestioned power centre of each territorial unit bearing the signs and symbols of the community in question.

International networks and flows of information and trade cross borders. Due to this, they have traditionally been a major part in a mechanism causing transnational interdependencies. Asymmetric economies are thus bound together. This may be highly profitable as they are given the possibility to benefit from exchange and thus the fruits of the division of labour. Interaction by itself typically takes place between microeconomic actors but it has been monitored and often heavily regulated by states, marking thus the fact that the traded goods or services cross the boundary lines between polities consisting of different sets of rules and other institutionalised practices.

A feature, typical to the global information age and its information or knowledge societies, is that the forms in which the goods and services leave and enter the polities have grown increasingly diverse and complex. Business networks and strategic alliances between corporations change both rapidly and repeatedly, not to speak about their ownership patterns in the global marketplace. On the other hand, transnational corporations build kinds of virtual worlds overlapping with the physical real world. They convert a lion's share of transactions that used to be "international" – that is cross-border financial or other flows – to something else (cf. Karppi 1999, 138–140). They are now regarded first of all as internalised or "intra-organisational" transfers between units or divisions that just happen, at some particular point in time, to exist in certain locations on the earth's surface.

What makes the picture even more complex is that some of the transactions may now involve mere virtual ad hoc entities. They may be nothing else than addresses located temporarily in a suitably available server with no guarantees of any continuity with regard to their existence in those locations – or elsewhere. The key question here is: at which point did the transaction cross the borders and enter or leave the territory subjected to certain nationally set regulations, tax legislation being one example illustrating the public financial interests involved (cf. e.g. Penttilä 1998)? Instead of being located on

the physically marked state border, the tax border can now be found from every office and every home with an access to the internet and the electronic commerce facilitated by it.

In more general terms: what is so particularly important in the new information era is that many operations that used to be regarded as interaction between two members of the international community of states are now privatised. They used to be monitored through state-centred systems such as national accounting. Now they appear to be carried out by single economic entities, instead. They operate multi-locally and make their decisions by taking closely into account the reactions and expectations of the global financial markets. Locations, on the other hand, are now both partners in a mutually shared network and competitors while decisions shaping that network are being made. The challenge of the state is largely connected to the policies through which it can enhance the competitiveness of these locations.

The Challenge: Defending the Nation in the Globalised Information Society

After losing many of the key instruments which were used by the states to control and adjust changes in their environment, the state cannot remain unchanged. It is even obvious that for it "going local", closer to the grass roots and origins of social processes could be a means of re-gaining control of the processes that cannot be monitored based on the interests and due perspective of central government offices. But this is something the state cannot do alone, without the acceptance of the local communities. Yet, a great deal of the state's legitimacy stems from its role as an actor that provides its citizens with utilities such as security, not only physical but socio-economic, political, and even cultural.

To safeguard the citizens' perceived social and economic security is to a large extent an issue of safeguarding the resources that enable them to make plans for the foreseeable future and to trust that their plans will prove to be viable. In the post-war Nordic context, social policy and welfare frameworks chosen by a state have been major factors determining the scope of this trust. At the moment – and particularly when taking a look beyond the Nordic societies – it is possible to replace the state with a wide variety of other imaginable communities providing their members with perceived social and economic security. They are, moreover, expected to provide their members the value base, raison d'être, and even an operational agenda the state has seemingly lost in the midst of the global changes and transitions.

These political and often also religious communities tend to define and defend the physical boundaries of their territories vigorously or, if we wish to underline their resemblance with the modern forms of political community, statelike. The 51-day FBI siege of the armed Branch Davidian community in Waco, Texas, followed by a fully-fledged attack and due bloodshed in April 1993 is an ultimate case in point here.

From today's perspective rather common solutions of information and communications technology, such as the internet, enable the making up of virtual communities, virtual tribes and virtual cults with their virtual identities and virtual values but with their real flesh-and-blood diehard members. What are the consequences when their vigorously defended locations in the cyberspace become a battleground in an electronic defence warfare of the "nation's" institutions – and, moreover, which nation's institutions? Yet, at the moment another potential threat is much more urgent for the nations to solve for safeguarding the well-being of their members: the resource base needed for thriving in the evolving information society.

Resources are not only needed for providing the community's members with the public goods forming the building blocks of their social and economic security. Instead, as we mentioned earlier above, they are also needed for maintaining and enhancing the global competitiveness of the community. In the global economy the community's capacity to provide these utilities is, moreover, essentially generated through better competitiveness.

The Question of Resources: Glocal Spaces in the Economic Landscape?

Some of the elementary building blocks of competitiveness are people, organisations and a variety of communities, as well as capital and knowledge. In this context people can be primarily regarded as human resources. Organisations, in turn, constitute arenas for the people's activities, but they are also actors – or agents – by themselves. A wide variety of communities organised on different grounds, as discussed above, provide an institutional environment for the individuals and organisations.

Human resources are now increasingly mobile. This is particularly true in the USA and in the integrated Europe. Moreover, the very virtualisation that was discussed in the preceding sections in the context of organisations and communities holds true with knowledge and expertise possessed by human resources. They can be shared and taken into use through the communication networks and operationalised, arranged and managed within virtual organisations. In the case of money and knowledge as factors of production the importance of these aspects cannot be even questioned, so self-evident they are. So, if important policy arenas which traditionally have been in the hands of the states' become gradually taken over by regions and localities, what is "the local" in them made of?

One of the key issues here is that despite of the virtualisation of various social, economic and – as mentioned above – even human processes, events and activities of real life still do take place (sic!) somewhere. As long as human being is a biological entity with due physical needs, beginning from nutrition and shelter, information will not suffice as its vital representation. Not only must the networks and other parts of the information technology infrastructure be built, but also the facilities for production of this infrastructure. The fact that human brain will be the most crucial production factor in the information society puts even more pressure on particular aspects of location and space: the utility reached through the locations' residential and recreational quality.

The exceptionally innovative environments may thus form glocal islands or spaces (to borrow the still popular combination of global+local that in the beginning of the 1990s caught en masse the attention of regional scientists and economic geographers[2]) featuring the most state-of-the-art information society scattered around the physical space. The state may be gradually forced to withdraw from nationally set regional and structural policies. However, the supernational institutions such as the EU replacing the state in this policy area may due to intensifying global tax competition have inadequate financial instruments for this task. The combined outcome of these steps may hardly be more than widened developmental gaps between regions. The paradox here is the centralisation of resources for development – generated through technology that at first sight would appear to allow first of all de-centralised development. To alleviate this potential inequality is a major task for all architects of the information society.

Back to the competitiveness game. Success in it can hardly be expected without partnerships, pooling of various knowledge resources. Innovation systems based on gradually grown strengths, often of evolutionary nature and hence strong local character and embeddedness require also assistance and participation of other actors. Universities and specialised research institutes are key actors here. The quality of public administration, with regard to decision-making as well as services, is a major instrument in promoting stable institutional environment and thus the institutional value added to actors whose other operational arenas "go virtual" to an ever growing extent and thus more and more volatile.

But what is the issue behind all assumptions placed and described in the sections above? How are the communities supposed to work? Is there any creditable evidence that the localities can be particularly empowered, assisted rather than hampered by the leapfrogging information technology?

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[2] Erik Swyngedouw (1992) is often referred to as the scholar having introduced the term. However, Swyngedouw himself has credited Andrew Mair of its original invention.

Developing Local Partnership: Response to the Changing Situation

To be able to survive in the cross-fire between the various challenges of the information age, regional and local communities must take the command at their own fate. In the coming information society both economic development and the prosperity of the region, and thus the welfare of the local population, will depend more and more on local decisions and actions.

To adapt and survive, and – what is even more important – to be able to take the advantage to utilise the opportunities, and eventually to prosper, local communities must take a new, proactive and decisive role. To be able to do this, local communities need first to develop a new understanding of their common fate and goals: secondly they must adopt a new ethics and mode of collaboration, and, thirdly, they must develop new forms and a new culture of co-operation and local partnership.

Before going further, we need to clarify what do we mean by local communities we refer here as the arenas empowering the virtues of the information age, what is the content of that expression. Put briefly, local communities consist of three types of actors:

1 local population: citizens and their associations;
2 local businesses and their associations; and
3 various local public authorities and bodies, including both local selfgovernment and local/regional state authorities

Based on this division, it is important to stress that to speak about local communities is not to speak about local government. Although local government authorities are major actors in the local community, they still comprise only one part in a much larger embodiment.

Towards the New Understanding and the New Ethics of Collaboration

In order to promote local prosperity and welfare, and to shape the development in the locally organised information society, local government, citizens and businesses must understand that they all are parts of a shared locality. They all are joined in a common struggle for a better future.

As members of the shared local community they are united by many common interests, goals, opportunities and threats. By working together to select and formulate, share and attain these goals, to utilise these opportunities and to avoid the threats they can all become stronger and more powerful than they could ever be alone. By working together and consciously striving for win-win situations in their interaction the actors can maximise the total utility that benefits them all in the longer term and make them thus winners. Known that this generally holds true for virtually all social situations that involve interaction and interplay between separate actors (cf. e.g. Axelrod 1984; Scharpf 1997), the main issue here is the locality and the due sense of commonness that make the sequencing, adaptation and adjustment of each actor's individual decision-making processes as a mutually supporting network of interconnected chains of decisions.

Achieving this type of co-operation is undoubtedly a difficult task. It is obviously much easier to publicly proclaim of co-operating than to actually get involved to a network of co-operation. Particularly important in this context is to understand that co-operation cannot be forced through normative directives or empowered through legal sanctions, nor through economic or physical domination. True co-operation will evolve in an environment in which:

1 all co-operating partners, regardless of their size or importance are treated as equals;
2 their individual differences, special needs, objectives and goals are recognised and respected;
3 they all are invited to formulate the shared common goals, objectives and strategies; and where
4 the fruits of co-operation are shared among the partners in just and mutually acceptable ways.

Obviously all this will require new ethics of collaboration, based on principles such as equality, respect, participation, and partnership.

California Smart Community Project as an Example

One potential concept that has been applied in the recent literature to describe local spaces of action as discussed here is that of smart communities (cf. Smart Communities Guidebook, 1996). The concept has been developed in California by a group of scholars working at the San Diego State University in co-operation with California State Department of Transportation (Caltrans). According to them smart community is a visionary goal towards which Californian local communities should be developed.

But what is a smart community? According to the project group a smart community is a community in which members of local government, business, education, health care institutions and the general public understand the potential of information technology, and form successful alliances to work together, using technology to transform their community in significant and positive ways. These communities should rely on the power of co-operation, shared resources as well as shared goals to enhance their competitiveness to retain and attract people, business and jobs to their region. Moreover, rather than being made economically helpless by telecommunications technology, they would use this technology to economically empower their residents, institutions, and region as a whole.

The smart community project in California was initiated by Governor Pete Wilson. According to him:

> "The "smart community" concept says that local leaders know far better than State or national officials how next-generation technologies can best be marshalled to a community's benefit. It says that only local political, civic, business, and education leaders, working in cooperation, can bring people and technology together in time to capture the competitive and civic advantages that the telecommunications revolution makes possible" (Wilson 1996).

Each smart community is unique, because its characteristics are based on the community itself and are thus firmly embedded in the identity shared by the local actors.

Postscript: Social Analysis and the Coming of an Information Society

The development of a global information society as described above is essentially a social phenomenon. The ongoing processes of change are affecting all areas of life in our societies, including politics, public administration and the role of citizens within our societies.

From the perspective of local communities the ongoing transformations can be seen as either opportunities or threats. And, indeed, they may be both. A great deal depends on:

1 the ways in which communities and their members (individuals, groups and authorities) define their situations;
2 what kinds of action they consider as reasonable and desirable;
3 what types of programmes or action they will develop in response to these situations; and
4 to what extent are they able to implement these actions.

For better understanding and management of these issues we need the contribution of social sciences, their theories and research. Social research is required to give us the tools to fully and richly understand the ongoing social transformations and their immediate and long-term consequences, both on the level of individual and on the level of institutions.

Social analysis empowered enough to cope with such a wide research area needs to adopt an interdisciplinary research strategy. It is important to bring together different approaches ranging from sociology and political science to information and communication sciences as well as to the study of public administration and management. Sufficient arenas such as scientific framework programmes must be developed to secure communication and utilisation of synergies among these approaches. The coming of an information society is essentially a social process. Thus it is worth taking into consideration as a question of political and social feasibilities, not merely as one of technological potentials.

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Arnold Lerber (Switzerland)

Part-time Student at the University of the Third Age in Jyväskylä Finland

Impressions, views and opinions about the happenings picked up on the 2nd International Congress on Electronic Media & Citizenship in Information Society 6.-9.1.1999 by a 62 years old Swiss who had lived in Finland for the last 33 years.

It has been an exciting experience to me attending the Conference of Politics & Internet, which awoke questions such as:

1 Where stands the Internet at the moment in relation to accessibility for everyone?
2 How predictable is the future of Internet ?
3 How can a Finnish citizen with decreasing ability of learning keep up with the development of new techniques ?

First I can state, that the conference had provided me with about 8 kg of information, some glimpse of knowledge and an indeterminable small amount of wisdom. In return, I add to this 8 kg of information lump an other 25 grams of written paper, which is patient and burns well.

The 'net-parliament'-group, formed by some 15 young Finnish students and myself, gave me some insight into the present offspring of the so called information society. It was impressive to watch, how playfully these young ones handle the computer equipment and with which ease they use the Internet as if it were just an other game.

The congress was organised efficiently. It was supported with good up-date equipment. The architectural surrounding was well chosen. The newly renovated or recently newly built structural facilities like 'Lasipalatsi', 'Kiasma', and 'Dipoli' supported the happening in a posi-tive manner. In comparison to them, the outfits in Jyväskylä were not quite on the same level, although Alvar Aaltos architecture would give a good potential for it. What disturbed me most in Jyväskylä, was the very unpleasant and clumsy instalment of the overall lighting. The speakers on the board were in the glare of hard spotlights, while the audience was kept in the dark. So dark, one could not even read ones own papers. Lively discussions and contacts through dialogue was practically made impossible. Pity!

Now, I try to fulfil my task by reflecting on the conference's content from an ageing participant's point of view. During those four days I attended many interesting plenary key- and parallel sessions. On the opening day Liisa Kauppinen held her speech in sign-language as she represented the minority group of deaf and dump people. I can easily agree with the points she stressed like e.g. 'separate guidelines for different minority groups' and that 'the minority groups have to become active for themselves'. Personally I also believe, that a demo-cratic society functions best when the groups it supports are not only asked to participate but they also have to be initiative on their own.

Sirkka Pöyry, representative of the European institute for engineers (FEANI), pointed out that the obstacles for adopting Internet is more a lack within the cultural attitude concerning readiness to do the basic work of learning, thinking and producing than the lack of technical skill itself. I think she did not mean the third world's population problem with their three billion illiterate people who's educational development doesn't seem to be manageable.

US-professor Benjamin Barber stressed the importance of an active democratic system. ‘The problem however is, that technical development changes happen so rapid that a slow democracy can not keep up with it’. In the same way or even more so, this also concerns ageing and other handicapped people. Professor Barber criticised the term ‘Information society’. I find ‘Knowledge society’ more appropriate, he said.

President Ahtisaari’s speech ended the opening day’s sessions giving some kind of political climax to it. His view on language problem was clear. He stated that outside Finland our language is practically understood nowhere. So if we want to play an active role in the international information community we have to conform to the general linguistic practice which nowadays is English. He wondered, what the impact might be if the Finnish children would begin to learn English at the age of three.

Personally I have some doubts about the wisdom of such an idea. Perhaps it might create a further dividing element within the structure of our society between the older and younger groups. Furthermore, language barriers might gradually fade away automatically through the rapid development of linguistic computer programmes. I certainly sup-port the learning of foreign languages but rather through motivation than obligatory dictation. The monopoly of the English language is obvious. But to who’s disadvantage? To the ~90 % of non-Anglo-Saxons or to those who don’t speak anything but English? In Europe anyway, a mono-linguistic community is isolated within ones own cultural cage of information. In other words, through Information alone one does not learn anything about life itself. Life-learning requires involvement which again is strongly supported by communication. So, what is the use of stressing global information values without a strong cultural ‘mouth to mouth’ involvement by communicating in local tongues ?

On Thursday 7 and Friday 8 January, the sessions somehow bypassed similar questions and problems concerning information, communication and Internet-technology. Sometimes with more emphasis on the technical development and security side and sometimes with stronger impact on the social structures.

In session 16, Jan-Ingvar Lindström focused on disabled people in-cluding also the aged ones. He claimed that their problems should not be regarded as something separate or abnormal. He suggested, that ‘what is good for disabled people is also good for all of us’. But I wonder, what happens when we turn that slogan the other way round. When the so called ‘normal’ scientists, engineers and developers rush ahead in building more and more sophisticated hightech equipment, how often are they concerned with the human being itself? What are the main motives of wanting to push the frontiers of more spectacular achieve-ments further ahead? – Selfishness, business, glory, curiosity or service to mankind?

Kevin Cullen from Dublin suggested that, when taking actions for de-veloping something new the following fife A’s should be kept strictly in mind: AVAILABILITY, ACCESSABILITY, AFFORDABILITY, AWARENESS and APPROPRIATNESS. Later in a personal discussion with Kevin I suggested to add three more A’s to his list namely: 1) ABILTY-criteria’s concerned with who is having the means, 2) ATTITUDE-criteria’s about how many members within a society find the learning of new communication skills important and 3) ASSURANCE-criteria for becoming convinced that the investment in time and money is worth wile and that continuity is reasonably secure and stable.

In session 33 Hannele Koivunen, whom I expected to take a more active role in the discussions, practised a more silent role. In a very sympa-thetic way she had good control over the panel. Somehow I felt that she could have contributed a lot more to the rather lively discussions but as time was very limited she probably did the right thing.

For me, the presentation given by Mika Tuomala, was one of the most exciting happening during the whole congress. How come ? – As an actor and producer he demonstratively penetrated deeply into the dualistic problematic such as objectivity – subjectivity, global – local, old – new communities and

technology – culture. They all are interrelated, even interlocked in such a way that one gets confronted with a chicken – egg infinity ? Tuomala clamed that 'anything happening in Internet is like a carnival where we are at the same time both, spectators and actors. He also spoke of the four levels of 'SELF' applying also in the Internet like: REAL SELF, PRETENDING SELF, ACTING SELF, and VISITATION SELF.

I guess I felt sympathetic towards Tuomala's presentation because he directed the audience towards an intuitive, somewhat philosophical understanding, that even ICT is an integrate part of nature and as such alive and creative, not good no bad, just simply innovative. I also began to wander, what does it matter that there are only a certain limited amount of people that have access to hightech facilities (some experts believe that this number will never exceed 10 % of the world's population). Those that have access to Information and Communication Techniques are ever faster picking the fruits of technical achievements from the tree of knowledge, while the other 90 % might always drag more and more behind, hopelessly dreaming about the fruits of prosperity from exhausted trees of eternal disadvantages. It seems as if the rich hightech societies rush with increasing speed apart from each other (in the believe that Internet brings them closer together) towards a global fission catastrophe of over-information and unsustainable exploitation of natural resources while the huge deprived masses drag themselves to the water well and eventually fuse into starvation. In time, both of them will die, whether moving cleverly quick or dragging apathetically slow. Aren't we all in the same boat wondering why we do what we do and what purpose does it serve?

Similar questions were also asked by Susanna Bairoh on Thursday in session 17 when giving her presentation on ethnic minorities. When she talked about 'INFO RICH and INFO POOR' asking who is included in the IS, she stated 'that the structures of INFORMATION and COMMUNICATION is determining the status of a person on a global, national, local and personal level.

A very strong impact on me made the presentation in session 17, given by the Nepalese lecture Byoma Tamrakar. With a few hard facts she made us listeners realise how irrelevant a fast technical development is for these remote 25 mill. inhabitants at the foot of the Himalayas, where there are today only about 50.000 computers. Out of their citizens only about 1/3 can read and some 10 % of those in English. The seize of the middle class decreases steadily while the country's economy is controlled by 5 to 6 families who have very little political interest in the development of the countries infrastructure.

This Nepalese example as one of the large deprived areas in the world, correlates in an interesting way with the story of a congress participant. He explained that there is nowadays a movement in the US, where some 40 universities have formed a block for the further development of a totally new system of information techniques. He claimed that their work is proclaimed top secret and that no outsiders will have access to their achievements which he thinks are going to be revolutionary. So it seems that within the computer society too, polarisation takes place creating huge gaps of dropout's in between ever stronger growing concentrations of know-how-centres.

On Friday January 8th, during the opening session, Tarja Cronberg came forward with a warm human perspective referring to the people of Karelia from eastern Finland. She questioned, what is going to happen to our cultural identity when young people leave the countryside in taking with them the knowledge of modern techniques and by leaving behind a group of elderly citizens that become more and more isolated trough disability of modern communication. On the other hand she claims, cultural citizenship is moor than just having access to technology and knowledge. It is direct contacts between people that make you feel part of a community, whether this happens on a global, national, local or personal level. The decision of whether to belong or not is basically made by the individual himself and does not solely depend on the political establishment or technical equipment. When talking about ethics and values in information society, the chairman of session 24, Irma Leivomäki, stressed, that technical achievements are simply tools for possible higher values. She analysed ASTETIC, EPISTEMIC and ETHICAL VALUES which she described are hard factors.

When Antti Hautamäki presented his views on ethics of communication he went into analysing of how the human brain conceives and interprets different sound- or sign-images. When speaking about the importance of intention he showed how differently a certain information is processed in our minds, depending of whether we regard it as relevant, perspicacious or of concern for oneself. Personally I wonder, what a indifferent, even impersonal Internet has got to do with ethics? Is it not a hide away place, where you can chat to anyone about anything without having to expose the slightest detail about your personal self, unless in particular you want to do so?

The French speaker Jean-Louis Armand however stressed the importance of the development of a kind of ethical code for the Internet users, because the technical, mental and social misuse should in some way or another be put under control. This is at the moment still a very difficult task, where no one has any answer to it, yet. What prize do future societies have to pay for a secure access to this universal tool called Internet? he asked.

During the closing session on Friday 8th I got the impression that most of the congress participant's were getting tired. The Information over-load was becoming evident also at this conference. Whether they talked about cultural, trained or experienced knowledge, I began to suffer under the multitude of these diversity-loaded, well prepared high standard presentations. I had reached some saturation point where I could not absorb any more. We are in the middle of learning I guess, where the deeper we dig into it, the more information we produce for others. For instance just like me now, with this paper. And you, dear reader, do you think you'd learn something by reading this? I doubt very much! But anyhow, here some statistical facts picked up ear:

– 15 countries in the world occupy and host 7/8 of all the Internet links
– about 5 % of the worlds population is at the moment connected to the Inter-net
– According to some scientists, at the most 10 % of the world population, will ever have access to Internet.
– Finland is an Internet paradise. At the moment already 30 % of the population have access to it, which is for the time being the highest level in the world
– This level might rise within a few years up to 70 %.
– How many % of the worlds population speak English as their mother tongue?
– How many % of the worlds population can understand English ?
– In the Mediterranean Europe <10 % of the population can communicate in English
– In Scandinavia >30 % of the population masters English
– >90 % of all Finnish children are taught English at school

Saturday, 9th of January 1999, Sessions in Jyväskylä
Opening Session : 9.00 am Video Conference from Oulu; Chair: Kalevi Olin

The audience of about 40 followed through Video-Vision the lecture given by Benjamin Barber in Oulu. Although this has bin an impressive event from a technical point of view, I found the scattered picture somewhat disturbing. It was difficult to concentrate on the actual speech and to comprehend of what it was all about. Maybe our equipment in Jyväskylä was not up to date enough for allowing such a demanding intellectual intercourse to flourish without restraint. It was a good try, anyway!

1st Session: 10.30 am; Internet and Third Age;Chair: Kalevi Olin
Together with our IT teacher, Mr Pasi Tenkanen and I as a student, were we were given the opportunity to presented our experiences gained through working with the computer and Internet classes at the University of the Third Age in Jyväskylä.

Mr Pasi Tenkanen focused first on the courses we have for beginners and more advanced students in computer techniques and Internet. Secondly he explained the future teaching programme aiming for our own Internet Cafeteria for Senior adults. This, if anything, is nowadays politically a hot issue. Where can we find sponsors or political support to enforce the idea, that many people from ~50

onwards need new training in utilising the modern techniques for every day living. Banking, posting, shopping, health care, informing, chatting etc. just to mention a few of the communication activities modern society offers and at the same time requires from its members. The senior members in our society have hardly the means to organise and finance these new skills on their own. But as there is potentially a strong free working-capacity amongst the senior citizens and also a certain know-how-capacity and readiness for participation in this built-up process, we should take the initiative together with institutions such as Universities and vocational high-schools to approach our town and state politicians with a clear and simple programme of what is needed. Most officials agree that Finland can not afford to disregard the development and training for this steadily growing social group of the so called Third Age which make already a minority of ~20 to 25 %. In 2025 they will make up about 33 %.

In my own presentation, as a representative and member of the University of the Third Age (UTA) in Jyväskylä, I explained in more detail how the LiLL (Learning in Later Life) -group is working internationally through the Internet. There are altogether 6 universities connected to LiLL. The university of Ulm (Germany) is the initiator and driving force behind this establishment. We are encouraging ageing people of dif-ferent countries to participate in contacting foreign communities and learning from, through and about each other by using Internet.

To close this report, I would like to point out, why I regard the coupling together Internet and the Third Age is such an important issue. On one hand, information-techniques and Internet are moving so rapidly ahead, that apart from retired people, other social groups too, are endangered to fall behind. On the other hand, it is also a fact, that ageing people adopt new knowledge and techniques with diminishing efficiency. As those two factors grow in opposite direction, they steadily cause bigger gaps between the hard driving younger population and the weakening members of society, our elders. They are not only endangered of becoming outcasts but they also become an ever heavier socio-economic burden to the whole community. To sustain our own life quality and personal dignity we have to participate ourselves in building it up, all life long. Social establishments are like mountain-boots which effect the wandering on our individual paths. The choice of direction and the actual walking we have to do ourselves.

Programme of the Congress

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WEDNESDAY 06-01-99, LASIPALATSI IN HELSINKI

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'From Germany to Finland'

Chairs: Kalevi Olin & Maija-Liisa Lindquist

Speakers: Prihti , Aatto J.: *Welcoming from Finnish National Fund for Research and Development Sitra*

Maar, Christa: *From Germany to Finland – The Internet & Politics Turns into a European Topic*

Olin, Kalevi: *Welcoming Speech*

'Electronic Media'

Chairs: Martti Tiuri & Marja Erola

Speakers: Haeffner, Alexandre: *Web – the Transformation of Commerce*

Todd, Keith: *Bringing the Information Society to Reality*

Wessberg, Arne: *Equality, Identity and Community in the Information Society: Public Service Broadcasting in Our Digital Times*

'Citizenship'

Chair: Antti Hautamäki & Anu Lamberg

Speakers: Kauppinen, Liisa: *Human Rights and Equality in the Information Society*

Linturi, Risto: *Convergency: Towards Media Democracy, Mass Manipulation or Cyber Terror?*

Pöyry, Sirkka: *Knowledge Society as a New Working Environment for an International Ngo*

'Information Society'

Chairs: Suvi Lindén & Paula Tiihonen

Speakers: President of the Republic Mr. Martti Ahtisaari

Barber, Benjamin: *Technology and Democracy in the Era of McWorld*

Haarder, Bertil: *Information Technology as a Liberating Factor*

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THURSDAY 07-01-99, DIPOLI CONGRESS CENTRE IN ESPOO

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KEYNOTE SESSION

Chair: Auli Keskinen & Antti Rainio

Speakers: Backman, Jouni: *Opportunities of the Finnish Information Society – National Strategies*

Becker, Ted & Slaton, Christa: *How the Internet Is Transforming Representative Democracy around the World*?

Corpakis, Dimitri: *Which European Way Towards the Wired Democracy?: Re- engineering the Societal Grid Through Networks*

SESSIONS:

Internet and parliaments

Chair: Mikko Valtasaari

Speakers: Neumann, Hans-Peter: *The German Bundestag on the Internet*
Olin, Kalevi: *Live Transmission of a Parliamentary Debate in the Internet*
Korhonen, Olli, Kosunen, Jaana & Saarinen, Janne: *How Information Technology can Support Political Interaction of a Woman MEP from the Middle Finland?*
Gross, Andreas: *The Democratic Potentials of the New Democracy on all Levels, not as a Substitute for Constituted Rights*

Empowering the citizen

Chair: Reijo Raivola

Speakers: Koskinen-Ollonqvist, Pirjo & Lipponen, Satu: *Health as a Value in Information Society*
Tammi, Tuukka: *Self-help and Telematics – Experiences from the Web*
Pekkola, Juhani: *Telework as a Mean for Empowerment in Working Life*
Kaivo-oja, Jari & Rubin, Anita: *How to Empower Citizens of the Future?*

Creating Paths to Information Society: Benchmarking IS Strategies and Programmes

Chair: Matti Mälkiä

Speakers: Mälkiä Matti &Vakkuri Jarmo: *Benchmarking Information Society Strategies and Programmes*
Reeder, Franklin S.: *Information Technology as an Instrument of Public Management Reform: a Study of five OECD Countries*
Lips, Miriam: *Serving the Citizen Electronically: Designing National Policy Programs and Emerging Practices in the Field of Electronic Public Service Delivery in the USA, UK, Sweden and the Netherlands*
Mitchell, Horace: *Responding to Dinfference: a Benchmarking Context for National and Local IS Strategies*

Utilising the internet for better democracy in local administrations and decision making

Chair: Auli Keskinen

Speakers: Steyaert, Jo: *Local Governments On-line in Belgium and the Role of the Citizen*
Hoff, Jens & Johansson, Sune & Löfgren, Karl: *Danish Local Government Election on the Net – Enhancing the Democratic Dialogue or Making Profit?*
Asunmaa, Pentti: *Information Network of Kuorevesi Municipality, Finland*
Hintikka, Kari A.: *Discourse on Information Society and Development of Internet*
Kuopus, Jorma: *Legal Questions of Democracy in Information Society*

Special needs of special groups

Chair: Jan Ekberg

Speakers: Ekberg, Jan: *Telecommunication and Access for Disabled and Elderly People*
Lindström, Jan-Ingvar: *Is There a Real Hope for Accessibility*
Emiliani, Pier Luigi & Stephanidis, Constantine: *Developing an Accessible Information Society*
Cullen, Kevin: *Realising the Promise of the Information Society for Older People and Disabled People – the Role of Policy-makers and User Organisations at European and National Levels*

Mass media, freedom and regulations

Chair: Kaarle Nordenstreng

Speakers: Liedes, Jukka: *The Struggle of Regimes*
Kopper, Gerd G.: *Internet as Instrument of Transparancy in Local and Regional Politics*
Tamas, Pal: *Control and Free Choice in the "New Garden": Utopian and Dystopian Visions of "Press Freedom" in Virtual Communities*

White, Aidan: *The Citizen and the Global Information Society*
Alves, Rosental Calmon: *Journalism*
Bender, Walter: *When a Lay-person becomes a Journalist*
Wiio, Osmo: *Media*

Knowledge management
Co-ordinator: Esko Kilpi
Speakers: Choo, Chun Wei: *Human Information Seeking Behaviors and the Management of Information Processes*
Kulkki, Seija: *The Era of the Individual? Technology and the Creative World?*
Koski, Jussi T.: *Information Glut. What are the Survival Strategies Available*
Pantzar, Mika: *Technology and the Individual. Constructing a Consumer for New Technology*

Towards digitised cultural industry – global vs. local content
Chair: Hannele Koivunen
Speakers: Koivunen, Hannele & Kotro, Tanja
Yates, Simeon J. & Perrone, Jane L.: *Producing Www Tv News – Organisational Practises and Contexts*
Garito, Mari Amata: *The Television University. New Models of Distance Teaching and Learning*

Creating paths to information society: benchmarking IS-strategies and programmes
Chair: Matti Mälkiä
Speakers: Huggins, Richard: *Site under Construction? Britain and the Information Society*
Eriksson, Päivi & Lehtimäki, Hanna: *Evaluating the Management Aspects of the Finnish National Information Society Strategies*
Tapper, Helena: *Information Society as Risk Society: Seeking New Modernity*
Tamas, Pal: *Information Society concepts in the Post-Socialist Europe: Leafpfogging and/or Backwardness?*

Learning in information society
Chairs: Eija Haapanen & Mikko Kinnunen
Speakers: David, Matthew: *The Possibilities and Limitations of Networked Learning*
Forsström, Jari: *Health Care Sector as an Example in Promoting Safe Use of the Internet*
Berndes, Stefan: *An Aspect of Learning – The Elderly Worker in Software Engig*
Rantala, Ilari: *Learning in Information Society; for 'Big Brother' or for Us?*
Andonov, Leena: *Building Learning Society – Methods for Learning to Learn Practical Implications at Primary School*
Kinnunen, Mikko: *Can You Change the Future? No, but we can.*

Politics and the information society in social welfare and health care
Chairs: Hannu Valtonen & Pekka Ruotsalainen
Speakers: Nenonen, Mikko & Muuri, Anu & Kauppinen, Sari & Nylander, Olli: *Now the Finnish Politicians have all the Data...*
Välimäki, Kari: *Information Society in the Social and Health Care: from the Point of View of Social and Health Sector Development*
Rönnberg, Leif: *Information Society in the Social and Health Care: the Voluntary Sector*
Valtonen, Hannu: *Information Society in the Social and Health Care. The Competence of Politics*

Digital broadcasting media in citizens' everyday lives
Chair: Heikki Lehmusto
Co-ordinator: Ismo Silvo

Speakers: Lehmusto, Heikki: *Digital Tv and the Consumer*
Lähde, Jussi: *Digital Family Values*
Salmi, Hannu: *Opportunities for Meaningful Contents Through Digital Tv*
Dillner, Erik: *A Swedish Case: Terrestrial Digital Tv for Citizens*
Kivikuru, Ullamaija: *Communality in Broadcasting in the Digital Era*
Lehmusto, Heikki & Äyväri, Heikki & Dillner, Erik & Kivikuru, Ullamaija & Hellman, Heikki: *Panel Discussion on New Citizen Related Broadcast Service*

The impact of technology on democracy in the information society
Chair: Dick Holdsworth
Speakers: Wyatt, Sally: *Internet in the Service of Democratic Processes*
Pechan, Peter: *Information Technology and Politics in Central Europe*
Stein, Josephine: *European Scientific Advisory Committees: Extending Democracy through the Internet*
Holdsworth, Dick: *Recent STOA Studies on Information Technology Applications and the Democratic Process*
Sutter, Eric: *The STOA Project on New Technologies at the Service of the European Parliament*
Rautio, Sari: *Introduction to Discussion*

Exclusion and the information society; information for some, exclusion for others?
Chair: Tuula Helne
Speakers: Phipps, Linda: *New Communications Technology – a Conduit for Social Inclusion*
Kajanoja, Jouko: *Costs of Exclusion and the Problem of Normal*
Penttilä, Matti: *Enlarging Opportunity Structures in the Information Society*
Bairoh, Susanna: *Ethnic Minorities in the Information Society: Doomed to Marginalisation?*
Tart, Indrek: *Internet and Culture*
Tamrakar, Byoma: *Influences of Network Technology in Nepal*

Copyright and public access to information
Chair: Tuula Haavisto
Speakers: Herd, Annabelle: *Implementation of the Wipo Copyright Treaty in Australia – an Emphasis on the Public Interest*
Koskinen-Olsson, Tarja; Liedes, Jukka & Herd, Annabelle: *Panel Discussion*

Towards greater public participation – Public dialogue
Chair: Tomas Ohlin
Speakers: Blume, Daniel: *Strengthening Government-citizen Connections in Policymaking: the Role of the Internet in Eight Oecd Countries*
Holt, Elise: *Moderated Parliamentary Chat*
Phipps, Linda: *Towards a New Dialogue – Innovation in Public Authorities*
Penttilä, Matti: *Social Rebound in Information Society*

Options and regulations of the Internet
Chair: Petri Aaltonen
Speakers: Tinto, Montserrat: *Legal Interceptions of Digital Communications*
Wingerter, Perdita: *Internet Regulations in the USA, Germany and Singapore: Three Different Approaches*
Julia-Barcelo, Rosa: *Liability for on-line Intermediaries*
Fallenböck, Markus: *Electronic Commerce: Challenges for the Legal System and Possible Answers. The Example of Austria in European Context*
Alatalo, Toni: *Internet Domain Names and Global Self-governance*

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FRIDAY 08-01-99, DIPOLI CONGRESS CENTRE IN ESPOO

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KEYNOTE SESSION

Chair: Matti Lähdeoja

Speakers: Cronberg, Tarja: *Citizenship, Identity and Regional Politics*
Thorhauge, Jens: *Internet and the Role of the Public Libraries*
Chun Wei Choo: *Human Information Seeking Behaviors and Management of Information*

SESSIONS:

Revision of the national information society strategy in Finland

Chairs: Antti Rainio / Antti Hautamäki

Speakers: Rainio, Antti: *Revision of the National Information Society Strategy in Finland*
Rantanen, Jorma: *People in the Center of the European Information Society Policy*
Haglund, Henry: *Finnish Strategy Approach in the European Context*

Ethics and values in information society

Chair: Irma Levomäki

Speakers: Levomäki, Irma: *Introduction*
Hautamäki, Antti: *The Ethics of Communication*
Siponen, Mikko T. & Kajava, Jorma: *Avoiding a Value Vacuum in Information Society*
Korac-Kakabadse, Nada & Kouzmin, Alexander & Knyght, Phillip Reeves & Korac-Kakabadse, Andrew: *The Impact of Information Technology on the Ethics of Public Sector Management in the Third Millenium*
Armand, Jean-Louis: *Towards Universal Access: At What Price?*
Hellsten, Sirkku: *Information Society vs. Knowledge Sciety: Facts and Values in Information Policies*

Public libraries as open access points to information and culture

Chair: Tuula Haavisto

Speakers: Sarmela, Matti: ”*We Want to Do It Together – A Common Effort of Finnish Public Libraries to Organize Web Documents”*
Koren, Marian: *The Right to Information for Every Human Being and Citizen*

Government on-line. Utilising Internet for better democracy in government & parliament

Chair: Marcus Schmidt

Speakers: Romakkaniemi, Pirkko: *The Register on Projects and Legal Preparatory Documents of the Finnish Government*
Hietanen, Aki: *Legal Information On-line. The Case of the Finnish Legislation Data Bank*
Stadler, Sabine: *Government and Internet*
Kok, Bas: *The Participation of the Netherlands Council for Geographic Information (Ravi) in the National Knowledge Infrastructure*
Fabian, Peter: *The Use of Internet as a Base of Development of Commmunication in a Geographic Information Systems Project*

Work in information society – evolving practices

Chair: Tuula Heiskanen

Speakers: Heiskanen, Tuula: *A Working Life Perspective on Mobile Boundaries of the Information Society*
Lavikka, Riitta: *Sowing – a Comparative Approach to Technical Practices of the European Information Society and Working Life*
Kivimäki, Riikka: *How Does Teleworking Change Everyday Life and the Totality of Life?*
Olesen, Finn: *The Trading Zone as Coordination of Space and Beliefs: Integrating It in a Medical Ward*

Opportunities an threats of emerging information and telecommunication technologies and infrastructures

Chairs: Aatto J. Repo

Speakers: Karpakka, Jari: *An Isp-point of View to Develop New Services and Technologies*
Sundström, Mikael: *Understanding it Evolution*
Kajava, Jorma & Siponen, Mikko T.: *It Security Infrastructure – Opportunity or Threat of Future Society?*
de Lange, Barbara & van de Goor, Anne-Geerte: *Elderly and the Adoption of the Computer and the Internet*

Internet, information society and new societal movements

Chair: Mika Mannermaa

Speakers: Mannermaa, Mika: *Quantum Jumps towards the Kiss Society?*
Margolis, Diane: *Use of a E-mail in a Cohousing Community*
Adamczak, Wolfgang: *Internet, Sciences and Democracy*
Peltoniemi, Teuvo: *Telematics and Virtual Reality as Tools to Help with Problems and as Causes to People's Problems – a Perspective from Substance Abuse and Mental Health Sector*
Fisher, Dana R.: *Virtual Community Building Aned Community Participation on the Internet: a Case of the Unsdnp*
Chroust, Peter: *Nazis and Taliban On-line*

"Public information access" projects

Chair: Maija Berndtson

Speakers: Kivekäs, Eija & Kinnunen, Juha & Nykänen, Pirkko & Pekurinen, Markku & Nyberg, Tiina: *Multi-perspective Evaluation of the Regional Health Care Network-project – Terve*
Schmutzer, Rupert: *Government Information Services in Austria: Current Developments*
Karhula, Päivikki: *Network Services and Librarianship*
Lehtonen, Eeva-Liisa: *Managing Economic and Business Information for Everyone: Case Finnish Company Reports on the Internet*
Benesch, Thomas: *Internet Craze of the Students of the Technical University of Graz*
Solheim, Ivar: *Customizing Public Information on the Internet. Electronic Information about Different Life Phases Adn 'Life Situations'.*

The cash dispensers are here, will we have robot nurses next? Are the machines going to take over women's work?

Chair: Outi Ojala

Speakers: Vehviläinen, Marja: *Gender, Information Technology and Information Society*
Valkonen, Marjaana: *Women and Modern Technology*

WebWhite & Blue: a model Elections online public service campaign

Meet the expert Steven Clift

Speaker: Steven Clift: *Democracies Online*

Telematics based educational services

Chair: Kari Salkunen

Speakers: Collan, Seppo: *Distributed Learning Model – Video Conferencing and Web Based Lear ning Environments. Case: Information Society Teacher Training Programme in Northern Finland*
Bernier, Roxane: *A Sociological Perspective of a Computer-mediated Communication in Exhibitions: The Visitors as "Critical Usesrs"*
Reif, Leopold: *Some Lessons Learned: How to Set up a Learning Service?*
Bestard, Loic

Korpelainen, Ari
Sinko, Matti: *ICT in Education and Learning*
Magyar, Gábor: *Telematics based Quality Control and Enhancement Services in the Higher Education in Hungary*

CLOSING PANEL ON FRIDAY 8 JANUARY
Conclusive panel: Transformation of politics and democracy
Chair and
Moderator: Johnson, Risto (Finnish Broadcasting Company – YLE)
Participants: Chun Wei Choo, Steven Clift, Beth Noveck, Antti Rainio, Leopold Reif, Byoma Tamrakar, Astrid Thors.

The discussion was introduced by a videotaped interview of Dr. Manuel Castells.

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SATURDAY 09-01-99, TAMPERE, OULU , JYVÄSKYLÄ
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PROGRAMME IN TAMPERE

Theme: **"Local Partnership for Prosperity and Welfare: Shaping the Local Information Society"**
The general theme for the Tampere Program (9th January 1999) is "Local Partnership for prosperity and Welfare: Shaping the Local Information Society". Under this topic the program concentrates on the local co-operation and global networking between stakeholders of regional development processes and their attempts to develop information societies in local or regional levels. From this perspective local and regional information society initiatives, projects, and programs are analysed and discussed. The key thematic issue to be discussed throughout the program is partnership between local and regional policy makers, public and private authorities, business community, third sector organisations and private citizens. How can this partnership be created, sustained, supported, and strengthened? What kind of experiences do we have from different regions, countries, cultures, and policy areas? These are, among others, some key questions to be discussed.

1. Tomorrow's Technologies – Today's Communities: Tools for Managing the Change in the Urban Context
In this workgroup the management of urban communities are discussed from the viewpoint of methods and tools, such as Geographical Information Systems (GIS), as means to analyse and manage their changes. How do these technologies add our capacity to manage the change? Whose interests are represented and whose interests are at stake while our urban future is being designed?
- Ilari Karppi, Email: atilka@uta.fi& Markku Anttonen, Email: atmaan@uta.fi

2. Internet as a Forum of Interaction in Local Development Policy Processes
To create and maintain proper forums for communication between diverse actors is a crucial issue in creating and implementing efficient development policies. Issues related to the use of Internet in this context are discussed here: What kind of practical experiments and solutions have been created? What are their strengths, weaknesses and bottlenecks? What are the prospects of utilisation of Internet as a forum in policy processes? – Markku Sotarauta,; Email: atmaso@uta.fi & Mika Kautonen, Email: atmikau@uta.fi

3. Revealing the Pre-assumptions of Local and Regional Information Society
Information society policies are based on certain pre-assumptions which define what is understood as self- evident, desirable and avoidable. The focus of this workgroup is: what are the pre-assumptions of local IS policies and how do they orient our understandings and choices concerning the present and the future. – Päivi Eriksson, Email: yypaer@uta.fi

4. Developing Community Safety through Local Partnership
Local initiatives and partnership for crime prevention and community safety are analysed and discussed in the context of emerging information society. How the prosperity and welfare of our communities can be maintained and increased through partnership between local and regional organisations, authorities, and individuals? What kind of experience do we have from past and ongoing initiatives, projects, and programs? – Matti Mälkiä; Email: **malkia@uta.fi** & Hannu Kiehelä; Email: hannu.kiehela @poliisiopisto.poliisi.mailnet.fi

5. Local Communities, Journalism and the Internet
This session discusses the challenges, possibilities and problems caused by the Internet for journalism and journalists: How are the journalistic practices changing? What kind of new journalistic genres or conventions could or should be developed? Will the Internet journalism be able to provide citizens with a more active role in (local) public discussion and decision making?
- Esa Sirkkunen, Email: **esa.sirkkunen@uta.fi** & Risto Kunelius, Email: **risto.kunelius@uta.fi**

PROGRAMME IN OULU

Theme: **Oulu towards the Leading Pilot Laboratory in the Area of Information Society Development**

Opening session
Speaker: Kyösti Karjula, Member of Parliament

Session 1. OLDER PEOPLE AND THE DISABLED IN THE INFORMATION SOCIETY – ACTIVE PARTICIPANTS OR PASSIVE PATIENTS?
Chair: Vesa Tornberg, Manager, OuluTech Ltd/SEGEL
Speakers: Benjamin E. Barber: *Democratising Civil Society in the Generational Justice*
(in videoconference connection with the session in Jyväskylä)
Seppo Väyrynen: *Ergonomics, Gerontology and Participation – a New Approach to Support R&D/ mmHACS (Multimedia Home Aid Communications Systems) –project*
Jarmo Karpakka: *Oulu Deaconess Institute – a Platform for Pilot Projects*
Pekka Koivukoski: *Making Oulu Region an Information Society for Elderly, too!*
Jorma Kajava, Mikko T. Siponen: *Selective Privacy Issues in Information Society*

Session 2. SERVICES AND PEOPLE S MOBILITY IN THE INFORMATION SOCIETY – HOW THOSE ON THE PERIPHERY CAN PARTICIPATE?
Chair: Petri Pulli, Professor, Oulu University
Speakers: Pirjo Koivukangas, Martti Sorri: *Pilot Laboratory Concept and its Implementation in Oulu*
Jarmo Reponen, Hannu Leskinen: *Telemedicine – the Oulu Experience. Implementation and Assessment*
Jyrki Maijala: *ELRES – Drug and Disease Information System Based on Digital Drug Description*
Marja Madetoja, Vesa Pentikäinen: *Information Technology a Tool for Managing National Health Problems – Case Diabetes and Hypertension*
Pekka Pitkänen: *Services of the authorities in the Internet – the pilot projects of Koillismaa region*
Harri Oinas-Kukkonen: *Studying Consumer Behaviour in Virtual Shops/ Electronic Commerce in ´Mobile City Oulu´ -project*

The following events will also be organised in Oulu:
– Exhibition ”With the Oulu-experience towards tomorrow – a peek into the future of technology “
– The exhibition will present the results of many pilot projects in Oulu, including demonstrations from the electronic commerce, the new equipment for the elderly, achievements in mobile telecom-

munications etc. The public can also vote for their favourite Internet homepage among those created in a competition arranged for the schools in Oulu province (about 100.000 students).
– Saturday evening will be dedicated to culture. In the ”Veikon päivän juhla” – the Party of Veikko’s Day some of the Oulu region top singers, choirs, bands and reciters will give their best to you.
– On Sunday Mr. Pekka Himanen, PhD and Minister of Labour, Ms. Liisa Jaakonsaari and others will discuss the topic Work – Technology – Future, visions of 21st century (only in Finnish!).

PROGRAMME IN JYVÄSKYLÄ

Theme: **“Virtualisation of Citizenship and Entrepreneurship – is All Politics still Local Politics?”**

Opening Session
Speaker: Kalevi Olin, MP

Video conference from Oulu
Chair: Kalle Lyytinen
Speaker: Benjamin Barber: *Democratizing Civil Society in the Generational Justice*

SESSIONS:
Internet and Third Age
Chair: Kalevi Olin
Speakers: Jaakko Leppänen: *Learning in Later Life (LiLL) –Project in the University of Jyväskylä*
Arnold Lerber: *Comment*
Matti Puhakka: *The Social Insurance Institution and development of Internet services for the senior citizens*
Matti Korkeela: *OKO Bank and internet services*

How Does Networking Affect the Relationship between Public Administration, University and Enterpreneurial Communities?
Chair: Aino Suhola
Speakers: Markku Lampola: *Commercialising the research results of the American Universities*
Olli Niemi: *Public Administration and spin-off- companies*
Olli Väätäinen: *Case: Yomi Media*
Kauko Keränen: *Sectoral Development Model of Electronics in Central Finland*

Appendix

Finnish National Fund for Research and Development

QUALITY OF LIFE, KNOWLEDGE AND COMPETITIVENESS

Premises and objectives for strategic development of the Finnish information society

Sitra 211 Helsinki 1998

Document can be found from
internet in:
http://www.sitra.fi/tietoyhteiskunta/strategy