

**The Finnish Innovation Journalism Research Program:**

# **Innovation is much more than business and technology**

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**Erkki Kauhanen, PhD, researcher, journalist**

**The Journalism Research and Development Center of the University of Tampere.  
Erkki.Kauhanen@uta.fi**

TABLE OF CONTENTS

1. Introduction.....	3
2. The Finnish Research Program .....	3
3. Innovation journalism, the concept.....	7
3.1. The b/t view, critique.....	7
3.2. A bit broader view, a proposal .....	12
4. Conclusion .....	14
5. Acknowledgements.....	15
6. Literature.....	15

## 1. Introduction

The basic motivation of our research program lies in the realization that during the latter half of the 20<sup>th</sup> century we entered a historically new situation, where technological advance and its accompanying social and cultural change have become a permanent feature of society. This change is forced by rapid development of technologies on one hand and various global trends on the other. In this society of constant change journalistic practices and theories lag sadly behind. In particular, the journalistic toolbox for analyzing change, trends and development, is poor.

I see innovation journalism as an attempt to develop new tools for a new millennium. In particular, we need journalism that is capable of recognizing technologically, socially and culturally important trends and developments in their early phases and is equipped to analyze the technology and business issues involved, plus the social and cultural roots, processes and consequences of this change in a way that best serves the society.

The need for a new journalism is perhaps easiest to recognize in the field of business reporting, where it was first done, for it is easy to understand that in the new innovation-driven economy innovation processes and the structures responsible for innovation activities attain a far greater significance than ever before. The wheels of a well-functioning national innovation system need rich flows of information as a lubricant. As Hjelm (2004) so properly points out, companies today are “informavores”. They need numerous kinds of even informal and non-technical information if they want to stay tuned to their operation environment in such an intimate way as is needed in the ever tightening competition, which characterizes the business environment today, both nationally and internationally. As Lewis Carroll said it in his innovation journalistic classic:

*“Now, here, you see, it takes all the running you can do, to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that.” (Lewis Carroll: Through the Looking-Glass)*

The new journalism for this new era must be able to recognize important innovations already in the cradle, see false alarms and empty marketing bubbles for what they are, and analyze the functioning of innovative companies and indeed the whole innovation system in such a way as helps the various agents of the innovation system and the society in general in the crucial process of opinion building and policy making. That much, at least, we need to keep in the same place, and much more is needed if we want to get somewhere else, to advance.

## 2. The Finnish Research Program

The research program consists of three main parts: 1) media content analysis and 2) theme interviews of key personnel from media and 3) other key actors of the innovation community.

Through media analysis a picture is created of the amount and types of innovation journalism content in Finnish media. I also try to identify and describe the story types used in communicating innovation journalistic content. These available journalistic models at the same time open and restrict the possibilities of innovation journalism. By identifying the story types used and making the journalistic community conscious of them, new avenues are opened for widening and developing this set of journalistic tools.

The exact research questions depart from three theoretical choices made in the early phases of the project.

1. Technological and commercialized innovations are not everything. There are hugely important innovations that are political, ideological, social<sup>1</sup>, cultural or even artistic by nature. Some of them are commercialized and some are not. Some of them have a technological component, some others don't. Some of them are made in professional processes and organizations, some of them are not. Some are even born out of collective processes where the innovator is not easy or even possible to recognize. These developments can be considered innovations after the community has become aware of them and their creative nature.

2. Even technological innovations may have social (and cultural and political) consequences, sometimes small, sometimes very profound<sup>2</sup>. The bigger these changes, the more important it is to understand their dynamics. These consequences and processes shape the context and conditions for the next generation of innovations.

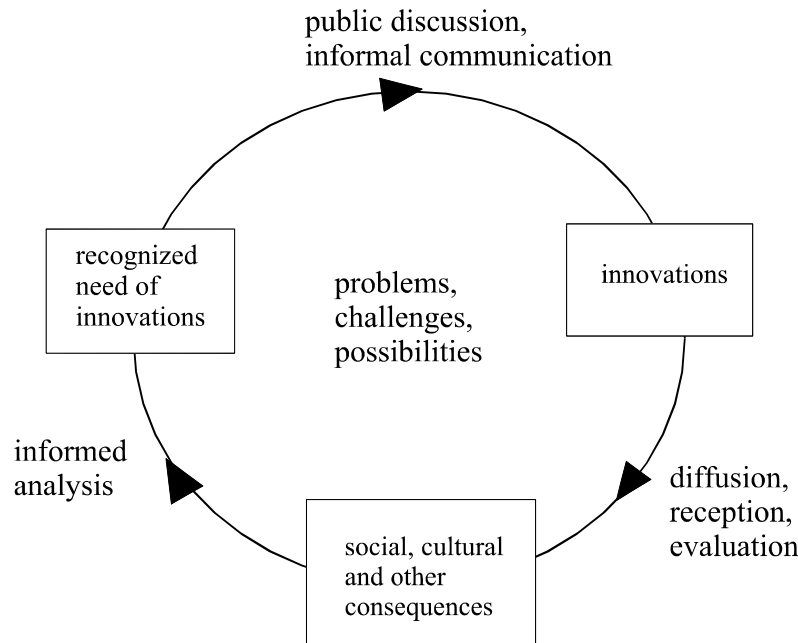
3. Innovation process is not linear but cyclical. Each individual innovation is but one step in a long continuum of developments. Innovations are never born out of blue air but they are always heirs to some preceding discussion where those visions are formulated which guide the process. Especially discussions of new technologies are deeply social or even political by nature (if they are not, there is something wrong with the discussion!). This is because innovations and new technologies, are a bridge between some problems, needs or challenges of the past and the definite future where these problems are solved. Innovation is a vision of how these challenges are met and a desired future is created. The market introduction, diffusion and reception of an innovation initiate the often complex

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<sup>1</sup> E.g. on the opening day of this conference we saw in The Stanford Daily a typical news story featuring a typical social innovation (Canadian government pays for heroine, The Stanford Daily, April 4<sup>th</sup>, 2005). Canadian government is conducting a clinical trial where heroin addicts are given their drug by health authorities, to see if they can be taken off the streets in this way. I don't think it is advisable to exclude this type of media content from the field of innovation journalism.

<sup>2</sup> I was very pleased to hear professor Theodore L. Glasser emphasize the same point in his commentary to Andrs Lotssons excellent presentation on the first day of this conference.

processes in which each innovation is evaluated against expectations, and the updated visions are born that guide the next generation of innovation. This view can be expressed as the Future Cycle (picture 1), where the dependence of innovations on various social processes is highlighted.



Picture 1: The Future Cycle: Innovations as answers to recognized needs and challenges. Technological and/or commercialized innovations are just a subset of all innovations. Innovation journalism can contribute to all processes of innovation communication.

Obviously the emphasis of the content analysis part of this study, then, is on the macroscopic processes whereby innovations are transformed from ideas to social reality:

Keeping in mind the aims of innovation journalism, we ask, what kind of information is offered by the media, to whom? What is its anticipated use and usability? What are the journalistic form conventions or story types used in shaping the message? How are innovations contextualized? Are they presented as mere gadgets or are they seen as the agents of some more profound social and cultural change (i.e. movement towards some optional futures) that they sometimes in fact are? If the social character of an innovation is referred to, how is it analyzed? Are innovations perhaps presented through the eyes and marketing arguments of their creators and marketers or in terms of their usability to the end user, in his terms and through his eyes? If innovation processes are analyzed somehow, who are the actors in these processes? What are the plays, who are the playwrights in this theatre?

Theme interviews of journalists in media houses purport to identify the mechanisms that determine the form and content of innovation journalism. What is the influence of individual journalists and how much is dictated by journalistic models, form conventions and genre and beat borders and definitions? How well are traditional journalistic news criteria adaptable to innovation journalistic topics, i.e. analyzing technological and its accompanying social and cultural change? How well is the traditional media ethic applicable in innovation journalism, or should innovation journalists produce some new elaboration of it? I strongly suspect that both of these questions require more attention than first comes into mind.

Questions like those above chart the situation today. Road to our preferred future (the one where innovation journalism is an accepted and respected journalistic approach) is mapped by the needs, attitudes, know how, resources and other things relevant to the question: how could we best introduce the idea of innovation journalism into media houses? Where are the most important points of tension? How well is innovation journalism understood, where are the possible misunderstandings, what information is needed, etc.? How well are journalists equipped to deal with the kind of questions that are essential for innovation journalistic approach, and what kind of education we perhaps need to update the basic journalistic toolbox?

Similarly, interviews with entrepreneurs, administration people and other members of the professional innovation community are conducted to identify their respective systemic, attitude and other limitations and resources that have to be taken into account in developing the innovation journalistic content of the media. The aim here is to find the possible problems in the often so troubled interaction between media and the innovation community. Only by understanding the tensions and conflicting expectations, risks and benefits, possibilities and pitfalls, can this relationship be made better.

It is hoped that this information can be used, among other things, in developing 1) the innovation training of journalists and 2) media training of “innovators”. Personally I think that especially the latter component is all too easy to forget. A few years ago, while working some time inside the professional innovation system (specifically in the technology center network of Finland), I came to realize that it may be exactly here, where the best dividends perhaps are to be found, if we want to make innovation journalism better: journalism is always a tango for two, although this is not always remembered. Some earlier research results about science journalism seem to indicate that the quality of science journalistic content in the media is not determined only by the science knowledge of the science journalist, but the critical factor in producing stories that are satisfactory for the scientist, too, may in fact be the media knowledge of the scientist himself. *Mutatis mutandis* I find these results suggestive of an approach where the task of making better innovation journalism would be approached from both sides of the media/innovation system interface. This calls for cooperation. Innovation journalism as a concept must therefore be introduced to the professional innovation community as well.

The Finnish Research Program of Innovation Journalism started in January, 2005, and lasts for 2 years. It is financed by National Technology Agency of Finland TEKES. It is mainly done by one researcher but for data collecting and preliminary analysis plus interviews, a second researcher is available part of the time.

### 3. Innovation journalism, the concept

#### 3.1. The b/t view -critique

The honor as the father of innovation emphasis on economy is often given to Austrian-born Joseph Alois Schumpeter (1883-1950). Already in his early work *The Theory of Economic Development* (1911) he saw the central role of innovations in economic development. According to him innovations are the core of market economy: they are largely responsible for the creatively destructive process where the old ways of production and old technologies are replaced by new and more efficient ones. He elaborated his ideas in several of his writings, among others in *Capitalism, Socialism, and Democracy* (1942). Schumpeter defined innovation either as a new product or production method, new raw-material or source of raw material, or new market or new production organization. This definition is still widely accepted. For example according to the information service of Finnish science and technology Research.fi<sup>3</sup>, *innovation* refers to all activities that produce or aim to produce technologically new or better products or processes. Apparently most writers about innovation journalism share this general view. This is very evident in the description of innovation journalism in the conference proceedings of the first Innovation Journalism Conference a year ago:

*"Innovation is that magical elixir that, tied to good execution, can take any company to the Promised Land. Innovation journalism covers technical, business, legal and political aspects along the road. The goal of Innovation Journalism is to facilitate the traffic on that road, as well as being the occasional traffic cop. By enhancing the public debate through better common knowledge and understanding of innovation issues, innovation journalism contributes to societal change."* (Innovation Journalism Vol 1 No 2, May 3 2004). We see the Schumpeterian emphasis on technology and business development spiced with a certain missionary feeling. The definition above is originally from David Nordfors (2003, 2004), who later at The Competitiveness Institute's 7th Global Conference (Nordfors 2004b) clarified further that innovation journalism

1. covers commercialization of emerging technologies;
2. is a combination of business, technology, and political journalism;
3. is able to discuss innovation driven growth from a system point of view;
4. offers assessments based on analysis of the integration of science & technology, business and public policy;
5. scrutinizes the innovation systems and acts like a watchdog;

<sup>3</sup> [www.research.fi/k\\_inno\\_fi.html](http://www.research.fi/k_inno_fi.html)

6. has previously not existed as a recognized concept, although it has existed in practice.

Probably the first dictionary definition of innovation journalism can be found on the internet in Wikipedia (first entry July 11, 2004). From there it has spread to the TheFreeDictionary.com: "*Innovation journalism is journalism dedicated to the coverage of innovation. Innovation is today a main driving force for economic growth and is the core activity of many leading industries. Innovation Journalism can be considered an aggregation of business, technology, science and political journalism and covers technical, business, legal and political aspects of innovations and innovation systems, involving identifying the key issues in the innovation systems and reporting on them, as well as on the main actors and their agendas and interactions with each other. The reporting combines issues such as science and technology trends, science and R&D policies, intellectual property, investments, standardization, industrial production processes, marketing of new technologies, business models, politics, and more.*" (The FreeDictionary.com, 2005).

It appears that this general view has during 2004 become the basic interpretation of the genre. According to it, innovations are market introductions of inventions (Nordfors 2004c), and therefore the main topic of innovation journalism is commercialization of emerging technologies. It is this view that is communicated to larger audiences as well, during this Second Conference: "*Innovation journalism is an aggregation of business, technology, science and political journalism*" (Nordfors in The Stanford Daily on the opening day of the Conference). What makes innovation journalism different from greater part of journalism so far is apparently its more analytic and more holistic attitude. In particular it should be seen in that it is supposed to combine methods and approaches from business, science and technology journalism. The motivation for (good) innovation journalism is that it "...*enhances public debate by improving common knowledge and understanding of innovation issues, essential for society*" (Nordfors 2004c).

Now, this view is clear enough and certainly represents a step forward in journalistic thinking and practices. However, in my mind, there are some severe problems connected to it. They can be avoided by defining the concept in a bit more comprehensive way. If these problems are not solved, innovation journalism will probably not be accepted by the journalistic community: as it is now, it will only appeal to a relatively small part of the business/science/tehnology journalistic community.

Central to this *b/t view* (from "business" and "technology") is the concept of innovation system. It may be national, regional, sectoral or perhaps even local. What ever the scale, these systems comprise those organizations and individuals who are professionally engaged in the various organized processes (technical, administration, legal, managerial, financing, marketing etc.) that comprise the product development circle of any company all the way from original invention of the new idea to its market introduction in form of some ready product, or influence it by defining some essential border conditions.

Jan Sandred (2004) compares the traditional and the "modern" view of innovation systems. According to him the *traditional model* sees the state as the key actor in innovation activity, for it finances research and promotes production in various ways. In the *modern model* state, university and production (business) are equally important. They all work together and share information and experience between all and various actors of the system. In this process also media has an active role, for as Sandred says: "...it is widely known that media is the primary source of information within politics, academics and industry."

Even this "modern model", however, shares the same problems as most *linear models of innovation process* (see e.g. Virkkala & Storhammar 2004, Storhammar and Virkkala 2003) and their respective versions of innovation journalism. The biggest of these problems is perhaps that these models seem to forget the active role of the general public and society in general in innovation processes. They seem to foster the view of civic society as a passive audience to innovation processes executed by agents of "the innovation system". Although the modern marketing machinery is notoriously effective in manipulating people, there is ample evidence of people participating in innovation development in numerous subtle ways. These influences (needs, visions, feedback) are channeled to the professionals of the innovation system in various informal communications but also through media publicity.

This influence has existed always, although its depth and importance is seldom realized. Things are probably going to change, however. The director of MIT Innovation Laboratory, Eric von Hippel, has recently published an interesting and important book, *Democratizing Innovation* (Hippel 2005). There he cites evidence that in all fields studied so far, from 10 up to almost 40 percent of end users have participated in product development. These "innovator users" can be either firms or individuals and the results come from studies across a wide range of product types from software source code to sporting equipment and housing.

In the minimum the participation may consist of answering to questions of some product survey. In the other end of the continuum are those computer users who actually write source code in various open source projects. Von Hippel believes that this new idea of *democratizing of innovations*, will become a major trend and a widely accepted product-development method and more and more products will be planned from the beginning so that the active input of end users will shape their further development.

It is also well known that 1) all innovations have social and cultural consequences (sometimes they are negligible, but especially in case of emerging technologies they can be huge indeed), and 2) many innovations are social or cultural by nature, yet they may have deep economic and technological consequences. This is to say that the social and cultural dynamics of innovation diffusion and reception, and social/cultural innovations themselves, may influence economy and technological development processes so strongly that it is not only justified but necessary to discuss them in the context of national economy and its competitive ability as well. Therefore it would be very counterproductive for innovation journalism to forget them.

Almost all innovations get their social and even economic importance only in the processes of diffusion and reception, which are far from passive. People form opinions about offered products actively and all views are played against each other. After the complicated negotiation of general opinion, the verdict finally becomes apparent in market behavior. Sales figures at the latest signal it to the marketers of the innovation.

The processes whereby this verdict is created depend on the social and cultural meanings we give to the innovation in question and of course the usability and usefulness of the offered products. A strong technological product may create new and unanticipated uses, new significations and new social relations, even structures. It may change the society for ever. These new social significations then turn back on their technological source and influence the way this new technology or product develops further. Good recent examples of this cyclical dynamics are personal computer, the internet and mobile technology. Future examples will include personal robotics, protein engineering, gene engineering, nanotechnology, etc. Through which particular products these emerging technologies will make their breakthroughs, we do not know yet. But they will, in near future.

Let's take the mobile phone as an example. As the Finnish researcher Kopomaa (2000) writes, it "was not only adapted to our way of life, but our way of life was changed by it as well". Now we live in a mobile society which is deeply different to the one we had before the mobile phone. People are connected 24 hours a day. Personal contacts can be opened at any time, anywhere, for good and for bad. Messages can be delivered without noticeable delay. Along with e-mail this has increased the speed of many processes in society. Nobody -among us privileged people- has to be disconnected from the network, even when travelling abroad. With the latest models you can effectively run your family economy or even write a novel. The very old and the very young have found more freedom in security. Yet many feel that the mobile phone has introduced a new form of social control. The broad implications of the numerous opportunities given by these little devices that most of us have in our pockets, are only slowly becoming evident. That process will take much more time to complete, if it ever will, and all through it the mobile phone itself keeps developing as the production teams smell new opportunities in the air and offer us new combinations of functions and services. The secret of success of this device lies exactly in the multitude of social significations and their respective uses that it produces. As the mobile phone marries the internet, a romance already well underway, we will see even more new uses for it, which we can't even guess yet. The gadget is no more a mere phone but we are carrying a mobile interface which keeps us connected to our virtual modes of existence.

Also, most innovations are answers to some needs that are experienced in society. Only some innovations manage to create completely new needs to be filled by themselves. Most innovations, even when they are made by professional members of some "innovation system", are indebted to the sometimes explicit and researched but perhaps quite as often more tacit knowledge about these needs. It trickles into the innovating organization through thousands of unofficial channels (and through journalistic media as

well). In this sense (at least successful) innovations are always built upon input and continuous feedback from their anticipated users. I have participated in some product development processes during my life, and in all of them this component, constant dialogue with the anticipated users of the innovation, has been a crucial resource, even if we always weren't very conscious of the amount and depth of that influence. I dare to assume that this is the case even more generally.

So, in fact I am saying that the so called (professional) innovation systems, if they exist, may in reality be much more open to their environment and thus much more diffuse in their structure and dynamics than we use to think. Perhaps we should see national cultures and national economies as a whole as innovation systems?

This *broad view* gets certain support from the early analyses of media content which I have made during this research project. In the beginning I defined innovation as is customary among this young innovation journalistic community. When collecting material from media I soon found myself in the problematic situation that many discussions of technological innovations were so deeply intertwined with some related discussion of some social, political or cultural process that I came to feel it impossible or at least counterproductive to look at one side of the issue only. Those two processes are so connected that should one fail, the other is doomed, too. It seems to me that often a technological innovation is only one face of a rich social/cultural process, which more often than not is happening outside the field of clear vision of the journalistic community.

Having come to think of innovation processes and innovations as deeply connected to other social and cultural processes in society, I also see that they operate in the same environment: When we look through the literature that is available on good innovation or entrepreneurial environments, or *habitats* as William Miller (2000) would have it, we see time after time that very much the same things as make a good habitat for innovation or a creative entrepreneurial environment also make a vibrant and living society in general.

For example Peter Hall in his already a minor classic *Cities in Civilization. Culture, Innovation and Urban Order* (1998) sets upon the task to find out what makes certain periods and places in history so virile and productive in culture, technology or economy. Silicon Valley is a case in point, once for a period a place where world was changed through the spirit of innovation, now somewhat less virile, but still an important center of innovation activity. What made its fairy tale? Peter Hall does not claim to have final answers, but his findings are in line with several other authors: innovations can probably not be forced, but spirit of innovation can apparently be nurtured through lively networks of rich communication, open society, atmosphere of cultural change and exchange.

This probably being so I find myself asking: Why wouldn't innovations in culture and society be quite as valuable topics of innovation journalism as those which are produced in the much narrower fields of business and technology? And why wouldn't the social consequences of technological or business innovations count, too? The more I go through material in newspapers and other media, the more clearly I see these issues as interconnected.

### 3.2. A bit broader view, a proposal

After some internal dialogue like the one above, I have come to see innovation journalism, which I find a valuable initiative indeed, not as an umbrella or separate new genre covering the traditional fields of business, technology and science journalism, but as a general journalistic approach that can be applied in any field of journalism, any beat whatsoever.

Accordingly, already in my preliminary materials which I use to test my research methodology and concepts, I find e.g. numerous newspaper articles that are written as sports stories, or arts stories, or what ever, but in my mind are beautiful examples of innovation journalism that only doesn't recognize itself. If we accept this, we have to accept also that all innovations are not commercialized (yet), and some will never be (as they are of noncommercial nature), and yet they may be worthy or even necessary objects of innovation journalism. This compels me to define innovation in a way slightly different to the definitions cited in the beginning of this article.

Definition:

**'Innovation'** refers not only to market introduction of inventions or new technologies but to all such ideas and inventions as attempt to make something better, whether it is of technological nature or not and whether it will ever be commercialized or not. To be counted as innovation, however, the idea must have some amount of creativity so that it can be considered new in the context. Thus, the term can potentially be used of any development that has some element of qualitative change in it. Mere quantitative change does not count as innovation.

**Innovation journalism**, then, is journalism of progress or change. The essential thing is that the agents of change feel that it is an innovation, a step forward. Whether the change in the end is for the good or the bad, is irrelevant.

In addition to new products, methods, technologies, raw materials and other Schumpeterian goods, this definition accepts the existence of e.g. social, cultural or even artistic innovations. It even grants the status of innovation for any major change of values or mission or even marketing strategy of a company, if the change is creative enough.

What, then, does it mean to be creative enough or new enough? It is necessarily relative to the context. As the word innovation is customarily used, some development may be innovation for one person in one context, place or time, but something else for someone else in some other place and time.

This is nowadays well understood e.g. in international development work: sometimes technologies that are already obsolete in the industrial world are exactly the innovative solution needed in some third world country. Big mistakes were made in this respect earlier when it was not understood that a high tech solution requires a high tech infrastructure: when super modern electronic water pumps are broken they are left rusting by African villagers, but when a simple hand pump malfunctions a local village smith knows quite well how to fix it. We see two innovations here, in fact: The hand pump is an innovation for the villagers, and the idea that technologies must always match the infrastructure level of the recipient and not the ideals of the western donor countries, was an innovation for the western donors, in its time.

So, for example, going through the test materials collected in the Research program so far, I recognize in it a certain very interesting content type that does not fit the narrow b/t definition of innovation journalism, but excels as good innovation journalism according to the broader definition proposed in this paper: in the media there are occasionally discussions of the future, where some anticipated developments are analyzed and a need of innovations is recognized. Although the innovations in question do not exist yet, this discussion that creates the social awareness of the need of these innovations and sets the stage for the innovation systems to start working on them, is in my mind innovation journalism, and a very good and interesting one. In the future cycle (picture 1 above) these stories relate to the box “recognized need of innovations” and they contain “informed analysis” to assess “problems, challenges and possibilities” of the future. This journalism is part of the public discussion of innovations (and the optional futures that they open). It helps the public opinion building so that its feed into the innovation processes will be as productive as possible. Let me just mention a couple of practical examples of the kind of discussions I mean here:

While writing this presentation in the last days of Mars, 2005, I have also been reading an important document quite recently published by the Finnish Ministry of Agriculture and Forestry. It is the national Strategy for Adaptation to Climate Change (Maa- ja metsätalousministeriö, 2005). In this document the up-to-date scientific knowledge of climate change is presented along with preliminary sketches of what it means in different sectors of society from housing to road maintenance to health to agriculture & forestry. It makes interesting reading from the point of view of innovation journalism, as I see it. Without actually using the word innovation more than just once, section after section the document recognizes a huge need of innovations that are needed to face the anticipated problems of future. It is easy to see that the discussion initiated in this document and no doubt developed in more detail in further reports in the future will spawn a huge innovation activity in various fields of society.

Similarly, aging of the Finnish population is a factor that we have to take into account when evaluating the future development of our national economic competitive ability. It is not only a problem, but also an opportunity. The recent reports on gerontechnology by the Finnish Parliament’s Committee for Future (Kuusi 2001, Eerola et al. 2001, Törmä et al. 2001) show that aging of the population creates markets for various wellness services and their supporting technologies. It is so strong a trend, a national megatrend, that just

like the global climate change, it will affect our whole national economy. It is necessary that ample education and research resources are allocated well in advance. We need journalism that keeps this issue on the agenda and follow the processes of innovation through. That is, in my mind, of supreme journalistic interest. I would see it as very good journalism indeed, innovation journalism par excellence.

#### 4. Conclusion

In this paper I have argued that for the proposed innovation journalism to achieve what it is meant to achieve, its focus must be broader. I have argued that all technological innovation activities happen in a social environment where all potentially successful innovations necessarily have their roots in the experienced needs of society. These needs are conveyed as input to various innovation processes through all possible means of official and unofficial communication. This implies also that all innovations once ready and around, are tested against the very wishes, expectations and in the best of cases even policies that have nurtured them.

The complicated processes of innovation diffusion and reception change society in numerous subtle and sometimes not-so-subtle, even brusque ways. I have argued that a case in point is the mobile phone, which has pushed us into a mobile society, willingly or not so willingly, in any case not so much as a result of conscious political decisions to move there, but rather as a consequence of a technologically forced process to which we have had to adapt. Without opining in any way about the blissfulness of that development I maintain that social changes so deep should always be extensively discussed in society, preferably in advance, but at the latest post-partum, to learn from them.

In my opinion that has not been the case with any of the most powerful technological changes of the last two decades (personal computer, internet, mobile phone, and lately, gene technology, nanotechnology, protein technology, etc.). These innovations have just been let free, to roam freely around and impose on us huge unanticipated changes of far greater significance, in the long run, than almost any of the sometimes hugely discussed - and yet often of only scant importance - political decisions made by parliaments during the same time period. Here I see a huge need of well informed and intelligent journalism that keeps these issues on the agenda so that we are not walked by the neck into future by (socially and politically) blind processes of technological change, but rather, we tread at least abreast of these developments. I can not resist the temptation to cite Lewis Carroll again.

*“Would you tell me, please, which way I ought to go from here”*

*“That depends a good deal on where you want to get to,” said the Cat.*

*“I don’t much care where-“ said Alice.*

*“Then it doesn’t matter which way you go,“ said the Cat.  
(Lewis Carroll: Alice in Wonderland)*

The level and quality of public discussion about these most important future developments, the constant (or should I say rampant?) technological change and its accompanying social and cultural processes, is often of so low quality that it can be asked, whether it really matters to us at all where we go. I hope that innovation journalism can change this at least a bit. To be most useful, innovation journalism should not be only business journalism spiced with a trace of science and technology journalism, but it should cover the whole process of change with all its social and cultural roots and consequences. I see innovation journalism as the journalism of change. Its temporal focus is in the future and its task is to help us to navigate there as intelligently and in as wise a way as we possibly can. It is not a new variety of business or science or technology journalism, but it can be practised inside all beats of journalism, always when writing about processes of change, whether they are commercialized or not.

The broader definition here proposed has the additional advantage that we are not inviting only business and technology journalists to join us, but this exciting process of creating a new journalistic approach is open to everybody, in all journalistic beats. I believe it makes innovation journalism more acceptable to the journalistic community.

## 5. Acknowledgements

I wish to thank the National Technology Agency of Finland, TEKES, for financing the Finnish Innovation Journalism Research Program. For technology people, working with journalists and researchers of journalism is an innovation, indeed. It will pay off. I also thank Esa Reunanen ja Kaarle Nordenstreng, of Tampere University, and David Nordfors, of VINNOVA, for valuable comments.

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