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Less, slower, better. Do information society visions have healthy alternatives?

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Abstract

Technical issues currently dominate public and academic discussion of the information society. There appears to be abundant optimism about the application of new technology in the construction of an information society for citizens. Individualism, formalised in the notion of postmodernism, promotes the idea of an individual-centric information society, in which individuals are connected with technology in terms of individual wants. This paper questions the current trend, in which the bigger picture seems to be lost. There are already clear indications that the cost of the prevailing IT-driven cultural phenomena will be high in terms of well-being.

Keywords: critical, information technology, information society, social, well-being

¹ The authors' names are arranged in alphabetical order corresponding to their equal contributions

1. The development of information technology – An unquestionable success story?

Computer-based information technology (IT) has a history of only a few decades. However, its development has been so rapid that humans have had difficulties following it. Today, information technology is offered as a solution for any kind of local or global problem.

Since the 1980s information technology has been seen as a crucial factor in increasing the competitiveness of business organisations, e.g. [1]-[3]. Later on, the potential of IT for other sectors, like education, e.g. [4] and medicine, e.g. [5], has attracted the attention of both researchers and practitioners. Nowadays IT appears to have an unquestioned role in all the developments of modern societies. The frequent use of the concept of information society highlights the importance of and trust in the opportunities of IT in all areas of life.

During the 1990s, with respect to business applications, the relativity and perishability of the advantages gained by using IT began to be emphasised, e.g. [6]-[7]. It was realised that IT as such is not a strategic weapon but rather the way it is utilised.

At the same time, several nations published their first strategies for an information society. For example, Finland was among the first to launch its information society strategy in the middle of the 1990s [8]. This report is very optimistic about the futuristic opportunities based on information and technology (i.e. information technology). Since then the national strategy has become more “human-centric”. The [Finnish] National Knowledge Society Strategy for 2007-2015 is entitled “A renewing, human-centric and competitive Finland”. In this strategy the primary national vision is stated as “A good life in the information society” [9]. However, despite its human aspects, technology seems to have the prominent role. For instance, with respect to the SWOT analysis, there are few mentions, besides the vulnerability of information society, of the threats that could be brought about by IT, directly or indirectly, through changes in human behaviour. To some extent, technological shortcomings are recognised, yet the resolution seems too technological: developing better technologies for overcoming information security or privacy risks, for example. Instead, scenarios for alternative futures are totally missing. In brief, IT seems to form the settings for tomorrow’s society, and it appears that the other factors should be adapted to them.

In this paper we question the “almightiness” of information technology and the neutrality of research that considers the weaknesses and strengths of information technology. We also aim to provide argumentation for why futuristic IT research should take seriously the risks of the blind belief in IT. This study is conceptual. It is based on surveying the literature of several areas. Realising that the topic is extremely complex, we rather aim to present well-argued questions than invalid answers. In so doing, we would like to contribute to the critical discussion on IT-based societal development.

2. Information society and postmodernism

New technology and communication constitutes the core of the information society. Information and communication are seen as generators of human progress and well-being. Connectivity, the access to information and the ability to contribute information and knowledge are enabling factors in the development of the information society [10]. Enabling greater use of innovative technologies wherever it is possible is seen as an accelerator of well-being and economic and social progress. In these visions each person should have an opportunity to gain the skills to participate in the upbeat knowledge economy the information society represents.

Fundamental values of freedom, solidarity, tolerance, equality and responsibility are the values of cherished in information society visions [10]. The importance of ethics is acknowledged. Cultural and linguistic diversities are recognised as elements of the individual's identity, and the preservation of cultural heritage for the future is one high priority in building an inclusive information society. This kind of value-basis reflects postmodern ethics, where pluralism and relativism are emphasised. The term *postmodernism* is usually associated with the change in the field of art in the 1900's, when the combination of different styles, meta-fiction, parody and playfulness became important ways to express artistic visions. In philosophy, postmodern refers to stylistic experiments as well, but also to the questioning of the foundations of modernism. Sociologists introduced postmodernism in the context of society in the 1960's, when it was used to describe the post-industrial society with such characteristics as individualism, non-hierarchical social relations, pluralism, and diverged social communities, e.g. [11]-[13]. The significance of postmodern ethics has been seen as a reaction to the problems that the information, media and consumer society produced, and to societal change in general. Also individual sense of responsibility is stressed. On the other hand, the aspects of individualism and the non-political nature of postmodern ethics have been criticised by e.g. Charles Taylor and Alasdair MacIntyre. In Taylor's critique the accent is on the demand for communal values and resistance policies [14], when MacIntyre criticises the development of ethics in 1900's for its individualism, emotivism, and for the lack of moral entirety [15].

Postmodern ethics does not recognise any common foundation for values, or normative laws [16]. Therefore everyone should construct their own ethical comprehensions. This has led to pluralism, which is represented in social media, like Facebook. Pluralism itself is not a good or a bad thing, but together with other characteristics in virtualised interactions the social consequences can be unexpected. However, interactions in social media are somewhat analogical to the attributes of the postmodern: fragmentariness, divergence, particularity, randomness, ambivalence, inconsistency, and non-hierarchical structures. In this article, we will discuss the possible problems or unwanted outcomes of the increasing use of IT's, in terms of social well-being.

the human being can be seen e.g. as a physiological, social and cultural creature. These are also the aspect in which certain basic needs, potentials, limitations and other human features are bounded, and which should be recognised in all stages of technological development. Human-centred design [17]-[18], value sensitive design [19]-[20], and even life-based design [21] views, which derive from a need for a holistic and multidimensional approach to human-technology interaction, have been applied to

software and service development, but the consequences of long-term use of services, like social media, have still not been explored. Connectivity and interaction appear to be the most dominant values in different design approaches, but what about the quality of that interaction?

Despite development-oriented aspects and noble ethical principles of the information society, well-being is not a self-evident outcome of constant technological progress. The level of discussion about the long-term use of technology, for example social media, and its consequences to human well-being, should be raised. Communication is a basic human need and a profound social process, as well as the foundation of social structures. The possible risks must be recognised and evaluated. The problem regarding this issue is, for example, that long-term consequences of the virtualisation of human relationships are not known. Nonetheless, according to the knowledge we already have from psychology and sociology concerning the development of identity and social behaviour of human beings, it is justified to predict negative impact on well-being.

The basis the modernism-postmodernism debate is technological change, particularly the effects on identity of the development of an information society. Nick Gillespie argues that the current profusion of communications media provides an environment for continual practice in self-invention [22]. Now the audience has a mind of its own, instead of simply absorbing the messages broadcast. In an information society, where information is a commodity itself, the most relevant interpretive context is the consumer's – not the producer's [22]. The notion is significant because the argument leans toward optimism concerning the potential of technology to help us build healthy relationships and constantly redefine who we are as human beings. Technology is not a threat to our uniqueness, but rather a means to further differentiate each individual, in order to expand the ways we alone invent new possibilities for living within a technology-driven society. New media becomes an advance for the individual's ongoing creative self-invention process.

In counterbalance, Edward Herman and Noam Chomsky stand for a less optimistic perspective. Such creativity is actually a myth constructed through propagandist media messages under the control of the socio-economic elite. This upper level is in symbiotic relationship with sources of information by economic necessity and mutuality of interest, and controls the ways in which individuals think about themselves in a society where individuality itself is called into question [23]. Chomsky and Herman relocate the forces that shape our lives outside ourselves by demonstrating a removal of the processes of self-identification and self-invention from within the individual. Here it is important to notice that the postmodern self, by qualification of its constitution through propaganda and ideology, can be seen as liberated. Social media are sparked by the need to capture a particular emotion or moment as experienced by an individual – and leave personal responsibility to the perceived laws of time, space and textuality outside, delineated by modernism. Social media can be seen as a hypertext narrative that allows boundless freedom to disrupt narratives. The process celebrates the fragmentation of identity as an innovatory, to be further explored.

Postmodernism enables a context to examine today's information society. It is still difficult to find a reason to think that this technological determination will become any easier. Technology will continue to illumine new ways to perceive ourselves and our position in larger groups. Technological change affects a sense of self not through

affirming any particular model of human existence, but through creating a sense of urgency in the quest to constantly locate and relocate our own models of existence in an information society.

Fundamental features in postmodern culture are individualism and technology driven mentality. Yet the responsibility of societal and cultural development must be shouldered, in order to prevent the uncontrollable development and unwanted outcomes of such development. After all, the postmodern (information) society like all the earlier cultural eras, is built by people.

3. Promoting social well-being

The cultural impact of current Internet usage and other popular IT applications is evident in our everyday life. The rapid change in social relationships has been particularly salient, raising concerns about social health. However, optimistic visions about the use of IT in various contexts (see above) dominate the media. Fortunately, there are some studies which dare to take an objective view on the rapid penetration of IT applications and their social impact.

Broadband appears to be the central technology in enabling the central products and services associated with current information society visions. Lucy Firth and David Mellor [24] analysed the effects of change from slower network technologies to broadband based Internet, making important conclusions about the related benefits and problems in terms of related expectations. Focusing on health, education, social relations, jobs and prosperity, Firth and Mellor did not find any clear benefits of investing in high bandwidth technology to be accessed by citizens. There are also some studies concerning the social impact of broadband household internet access [25]-[26], which do not find any social impact when upgrading to broadband. However, these studies only compared slower Internet access to broadband, not the internet-based lifestyle *per se*. In contrast, an extensive study among over 6000 Americans [27], turns the obvious to evident: The use of the Internet changes our social life dramatically, shifting the time used for face-to-face social contacts to online activities. When talking about the revolutionary opportunities of IT in the endeavour of 'connecting people', this kind of studies returns us to reality.

For sure, IT has enabled social interaction which would have not been possible without contemporary applications. Stories about grandparents who are able to Skype with their dear grandchildren on the opposite side of the world are a good advertisement for broadband based visions of the information society. However, grandparent-grandchild communication is probably a curiosity in the world of Internet enabled communication. A more comprehensive picture could be seen in a statistic, according to which Facebook has been mentioned in 20% of petitions for divorce in the UK [28].

4. Social media

Sociologist J.A. Barnes coined the expression “Social Network” in 1954 to explain the friend-of-a-friend-of-a-friend connections that split traditional groupings [29]. These networks offered people the opportunity to find jobs or apartments, for example. Use of a social network site for actual social networking might be impudent. Facebook has already changed the way millions of individuals get connected with each other. If we want to talk about networking, sites like Facebook are deceptive because they do not network in the way that social networks are specifically designed to do. One of the most distinctive features of Facebook is “News Feeds”, where users can spend their time keeping up with the details of their buddies’ lives. However, it can be called stalking or friend collecting since it does not really build up real connections. So far networking in Facebook and other similar services are done in an ad-hoc style. The big question is how to convert networking into a web service. Or what it even means to be connected.

Without going any further into possible Facebook use scenarios, there is one more important issue to focus on: the use of political power in the design of such services, and its impacts on social well-being. For a constantly increasing number of people Facebook has become an important service, if a person wants to communicate and keep up-to-date with his or her communities. The problem is power to make decisions. At present, young Mark Zuckerberg practically holds the authority in any decision making in Facebook, and the users are committed to follow the agreement that defines the legal relationship between the user and the company. In the free market the consumer can decide what kinds of services he or she wants to use, and what company he or she wants to deal with. In the Facebook case, such freedom is principally theoretical. If the majority of the surrounding community uses Facebook, refusal to use the service is not possible if one wants to be fully part of the community or avoid social exclusion. However, Zuckerberg decides, what is appropriate or prohibited. Facebook is a global social media, and traditionally the media has been one instance that holds political power. Facebook is just one example of more extensive phenomenon. It is hard to believe that forcing people to use communication systems that have been designed to follow certain economical principles is desirable from the viewpoint of communal well-being.

Broadband and Internet in general is, above all, an enabler. This argument is frequently used when justifying public investment in the construction of network technology. For sure, Internet as a technical construction cannot be blamed for everything people have used it for. Therefore we maintain that instead of arguing for and against Internet, we should talk about the culture it has enabled. Above all, if we are interested in the construction of our culture in the long run, we should be interested in the behaviour of young people. What kind of opportunities do we as grown-ups, in the role of parent, teacher or any other facilitator, for example, offer to our children? Who is responsible, for instance, for what our children do online? Recent statistics by Symantec [30] provide a realistic view of the use of the Internet by the young generation. In the statistics, there were three age categories: 13-18 yrs, 8-12 yrs and under 8 yrs. In Internet searches performed by all these age groups, the three most popular keywords were “Youtube”, “Facebook” and “Google”, only the order of these varied in the

different age groups. The next most popular keywords were “sex” and “porn”, again in all age groups, including under 8-year-olds.

The interesting analysis of the effects of Internet use by Firth and Mellor [24] argued that broadband is taking off among the elites of society. However, it appears that the change of our culture is happening so rapidly that the paper published in 2005 already requires updating. There are two issues which need to be reconsidered in 2010: First, the penetration of so-called social media has mostly taken place during the last few years. Second, the demographics of their use is quite different from the demographics of Internet users in 2005. Recent statistics from the US [31] show that the use of social media is most frequent in the second lowest income category of six. In terms of education, college level education has a strong relationship to abundant use of social media, which is only a fraction of that among people with graduate level education. These statistics imply that at least the use of social media is by no means an elitist activity. If the same trend holds for the use of Internet in general, we are in an interesting phase in the change of culture. When Internet was novel technology, it was adopted by people of high socio-economic status. Within a few years Internet access was possible for most households. Probably the change had an effect on the content of the Internet as well. All this has seeming made the elite gradually discard many popular Internet services, like social media. This is obviously speculation or hypothesis rather than a conclusion, but one thing is clear: The impact of the Internet and its social impact in particular needs to be investigated much more than has happened so far. The economic interests behind the promoting of all kinds of Internet based activities are so strong that a proper counterforce is needed for citizens to understand the true nature of the current cultural change. Such a counterforce does not exist at the moment. It seems to be extremely difficult to get publicity for any critical views about the current state of Internet usage. For instance, the excellent critical statement of Firth and Mellor [24] has been referred to, according to the Google Scholar search engine, only 36 times (checked 25/5/2010). The ground-breaking paper of Nie and Hillygus [27] has been referred to in 85 publications only (status 25/5/2010).

“While technology shapes the future, it is people who shape the technology, and decide to what uses it can and should be put” (Kofi Annan, UN Secretary-General 1997-2006) [10]. The words of Kofi Annan are probably mostly used to rethink how we should take into account the needs of all nations in the construction of technological environments. However, they could as well be applied to industrialised, western societies. As the penetration of new technologies changes our culture, we should be aware of these changes and reflect the anticipated changes in our vision of future society. Currently, the problem appears to be the lack of value-based vision. In several contexts we are given an impression that the development of technology is an organic process, over which no one has control. Technology as a servant of human beings is a dead concept if we cannot even question technology driven construction of our society.

5. Towards brave and balanced IT research

Blinkered attitudes towards the development of technology are a natural outcome of decision making that emphasises economic standpoints. Continuous economic growth is

the last thing to be questioned, and technology in general [32]-[33] and IT in particular [34]-[35] have been seen as a primary means to enable this growth. However, as noted by Fisher-Vanden and Ho [36], for example, better technologies do not necessarily imply better life circumstances.

The extreme belief in technology can be found in the thinking of technology determinists like Clarence Ayres [37]. For Ayres technology had the position of a religion, which is realised in his notion of the Gospel of Technology. Although extreme technology determinists are few in number today - and opposition to technology determinism has emerged - many of the new directions, such as the school of the Social Shaping of Technology [38], emphasise the strong link between social systems and technology, rather than the necessity of considering the weaknesses and threats of technological evolution.

With respect to information technology a simple experiment reveals the hype in attitudes towards IT. To acquire neutral information on the opportunities and advantages of IT on the one hand, and on the threats and disadvantages on the other, we carried out a Google Scholar inquiry by using the keywords *information, technology, opportunity/advantage/threat/disadvantage*. The result was very much what was assumed. The positive terms *opportunity/advantage* yielded articles that mostly dealt with how IT can be used for gaining a competitive or strategic advantage. Interestingly, the negative terms *threat/disadvantage* to a large part, also yielded similar articles, i.e., dealing with positive impacts of IT (overcoming some disadvantage by using IT). Only a few of the first fifty results emphasised the risks or shortcomings of IT, and even in those cases the positive aspects were also considered, i.e., *both* the threats *and* opportunities of IT or information systems.

We have briefly described how IT has become the unquestionable starting point of all societal development. Excluding some exceptions, e.g. [24] researchers seem to have either fanatically positive or pacifically sceptical attitudes towards the development of IT. Real criticism is missing. We argue that this is not because of missing valid arguments but rather because of current policies that are based purely on economic values. Institutions and even nations rely on technology in general and IT in particular, which is seen as the solution for any kind of problems. As a consequence, IT has gained a position that is difficult to shake.

It is hard to deny the fact that current societal development has been technology-driven and shaped by the evolution of technology. To put it more sarcastically, technology - IT particularly - approaches human features in the sense that it *evolves* rather than *is developed*. Accepting this means that the crucial aspects of cultural and societal changes are forgotten, i.e., the human and interpersonal processes that are still the basis of the future. Looking at the “evolution” of IT from the human point of view, all consequences are not necessarily success stories. In the longer run, which of them are and which are not, requires and is worth comprehensive and objective research.

6. Discussion and some concluding statements

There are multiple approaches and interests in the discussions about the development of information society. The first difficult issue is the definition of the concept itself. The current discussion appears to take it as given, just as if we already had a common understanding of it. However, the human centred ideals are not necessarily realised in technology driven ideas about the implementation of an information society. The concept of postmodern society undoubtedly matches the views and values of people, who manage their own life and rapidly changing social networks constantly with the help of electronic infrastructure and personal applications. A technically networked society definitely has a lot of potential, but the experiences so far are not too encouraging.

In western societies, we are constantly exposed to idealistic views about the endless development of technology and how it ultimately improves our life. As described in this paper, it is really hard to publicise any views which challenge the blind belief in information technology. The daydreams of a better, technology enabled life are being fed in small doses in the form of well marketed, nice looking and appealing products. Sadly, most of the dreams lead us in the wrong direction. As discussed, neither the endless pursuit of information technology based productivity and economic growth nor the striving for ever faster access to information and social networks has much to do with well-being. The speed at which data is transferred in the networks hardly correlates with the perceived quality of life. Data or information itself does not automatically lead to knowledge, not to mention wisdom. Current IT opportunities can be paralleled with a construction site with a lot of construction material lying around but no-one knows how to build a house from it. In the construction of an information society, we need a vision ('a house plan') and only after that should we decide what we need to implement the vision. In the vision, the means to implement should not be the essence, but the ideals of good life.

In the implementation of a healthier information society, digital technology may have an important role. However, rather than continuously demanding more and faster, we should focus on the quality. What if we had less of it all and, if it were slower, could it be even better?

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