

From users to consumers

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Abstract

The perspective on technology of the Scandinavian approach was the perspective of a work oriented society. And work was mainly factory work, the production of goods. The world is different now with most everyone employed in services and a growing consumer market. We can look forward to a forceful wave of industrialization of services—using information technology to automate, standardize, and package services. A professional systems developer will again be faced with the challenge of achieving non-oppressive automation. A new agenda for action research will have to be developed, new large scale projects with trade unions and public agencies are waiting to be initiated, involving both users of information technology and, more important, consumers as well, in a consumer oriented approach to services.

Keywords

Scandinavian approach, service society, services, users, consumers

1 Introduction

Looking back on the last two centuries of rapid technological development, it is easy to see the role of technology in changing society. Machine technology automated farm work and made people leave the farms to seek work in the factories in the cities. Computer technology automated factory work, turned people into office workers. Information technology is now automating office work. People leave the offices to find work in sales and services on the market.

There is progress in this development of technology. With automation there is an increase in productivity and with new technology there are new products and services. Societies become richer, there is more to consume for everyone. Technology has given most of us in the western world a life like kings. There is light if we press a button, heat if we turn up the thermostat, food in the refrigerator, ready to be served after a minute in the microwave. We travel in luxury, take vacations in the sun, go to school for 12 years or more, and so on, and so on.

There is progress, but only through radical change. People who grew up on farms had to move to the cities to find employment in factories. People who worked for decades in factories were suddenly out of work when robots replaced them. Now, office workers are laid off as administration is automated with information technology. Every new wave of technology will increase productivity, making us all richer in the long run, but ruining some people's lives in the short run. Some people have to pay a high price for progress.

If the task of politics is to build a good society for all of us, then, in the last two centuries, technology has become an increasingly important aspect of politics. Societies are made of technology, but as long as technology is constant, it will tend to disappear from view. It is when technology is changing that politics has to attend.

If new technology disrupts life for large segments of the population, politics will have to deal with this problem, making efforts to diminish disruption. A conservative politics will focus on this aspect only, trying to delay or divert technological development. A more

progressive politics will combine efforts to diminish disruption with a more technology positive attitude.

Working with technology, in practice or in research and education, you may narrow your perspective to deal only with technical functionality or immediate user properties. But, as Lars Mathiassen and I argued in *Computers in Context* (Blackwell, Oxford, 1993), a truly professional attitude to technology cannot avoid a political perspective and commitment. It is natural for such a perspective to be progressive, of course, in view of the difficulties in combining an interest in technology with a program to slow down its diffusion.

2 Service Society

In the 1960s, sociologists like Daniel Bell began saying that we were leaving industrial society, moving into a postindustrial service society. Others pointed to the growing amount of information work, speaking about the information revolution. Something was obviously happening and looking back it is easy to see the role of computer technology in this "revolution." Computers entered the factories of industrial society, automated work, emptying the factories of people. People instead found jobs in the services, in education, healthcare, childcare, administration, media, sales, marketing, tourism, hotels, restaurants, and so on.

In a country like Sweden, more than 80 % of the working population is now employed in services. In a service society focus is on services and their consumption more than on goods and their production. As service society developed, its focus moved from the offices of service organization to the market place and service delivery. It is here that information technology – mobile phones and Internet – will play its major role.

We can look forward to a major wave of information technology automation, standardization and packaging of services in order to increase the productivity of service provision. On the one hand we will develop IT support for service personnel, while on the other hand we will develop Internet services for fixed and mobile consumption. This wave of

automation may very well be more forceful than the automation of production going on in the 20th century.

To a large extent, services are still performed in a craftlike manner. There are exceptions, of course, with administration and financial transactions as outstanding examples of automation. Other areas, such as healthcare and education, resemble the situation in production before industrialization and those areas are fast approaching economic crisis as salaries go up and customer demands increase, while productivity remains the same.

The modern healthcare system is approaching a crisis. As we live longer, we demand more – and more expensive – healthcare services. New forms of treatment become more technically complex and therefore more expensive to use. Gene therapy is beginning to open up new avenues of treatment, but the cost is staggering. While the demands on healthcare are growing, the system is suffering from organizational problems, and the staff is underpaid and overworked. The solution, of course, is industrialization – automation, standardization, packaging, and self-service.

3 Service Work

A political perspective on the use of information technology will face a repetition of what went on in industry in the last century. The development of information technology support for healthcare, childcare, care for the elderly, education, hotel and restaurant services, tourism, and so on, will raise very similar challenges and conflicts to those met with in the automation of production.

Information technology will be used to increase productivity by applying the sort of scientific management thinking in service organizations that was used in organizing 20th century factory work. Healthcare personnel will have to get used to more strict labor division, administrative chores will be automated, time studies will make sure that doctors' time is used optimally, monitoring technology will be introduced to measure productivity, quality assurance systems will be imposed, processes reengineered, and so on. Part of the solution to a growing productivity crisis is, of course, the packaging of standardized electronic services for self-

service.

Many of these services are today performed by predominately female professions, in low-paid, physically and emotionally exerting, stressful, responsible jobs. The information technology now about to be introduced in this sort of work will to a large extent be oppressive. In order to cut costs in a personnel rich business, technology will be used to monitor work, measure time, much in the way factory labor was once organized by scientific management. The only difference will be the sophisticated technology now available to control work, even when performed in a mobile, distributed manner.

A Scandinavian approach to the automation of services will be progressive. Like Kristen Nygaard's work on action research in the early 1970s, it can work with trade unions, to gain power over the automation process. Since much of the services in Scandinavia are performed by the public sector, there are strong allies to be found in government agencies as well. With the experience of automation of production behind us, we can now avoid some of the romantic glorification of the traditional, craftlike way of working. We have learned by now, I hope, that there is very little to be gained, and more to lose, by trying to defend the tacit knowledge of an older way of working.

Anyone with an interest in putting information technology to good use in the working life of the next decades will have her hands full with finding alternatives to mainstream, American produced, IT support for service provision. Such alternative solutions can, for example, make sure to involve the consumers of services in an active way. User participation will be extended to include consumer participation. At the same time there will be a whole new arena for action research focusing more directly on the consumers of services.

4 Service Consumers

The perspective on technology of the Scandinavian approach was the perspective of a work oriented society. The world is different now with a growing consumer market (70% of the GNP in the US, more than 50% in Scandinavia). We continue to work certainly, but our role as consumers is becoming more and

more important. Children, teenagers, unemployed and retired people soon make up the majority of the population in most Western countries, and they are no longer invisible.

Technology has made modern life incredibly comfortable. With more and more advanced and easy to use technology, we no longer have to worry about the practicalities of life. The irony of progress is that in this process we run the risk of creating a society of consumers rather than producers, a society in which many of us have nothing worthwhile to do and thus find life more and more meaningless. The good life is a life of balance between production and consumption, between effort and rewards. It is a life of achievement, not just consumption.

We come out of a society in which most of us were active most of the time, using tools and experiencing the results of our activity. It seems as if we are entering a society in which we will spend more time being passive consumers of

services providing us with experiences. Some of us will be producers, some of us only consumers. The scene has changed in the 30 years since Kristen Nygaard first started working with metal workers.

The choice then was between people or machines in a world where human beings were too easily reduced to factors in complex technical systems. That choice is still relevant, but equally important has become the choice between producers and consumers, between using technology to produce something and using technology to consume. It is not a choice between people and technology, but between different sorts of technology. How that choice is made, and who makes the choice, ought to be a major issue for anyone interested in technology (cf. B. Dahlbom, *Makten över framtiden*, Liber, Malmö, 2003).