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Information Systems Research and Social Responsibility

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Now and then a research field needs to reflect on its own presuppositions and fundamental objectives. A good opportunity to do this opens up when the research field is evaluated or commented upon by someone from the outside. In the last number of SJIS two American researchers, David Hakken and Langdon Winner, gave their personal views on Scandinavian information systems (IS) research. They both commented upon the historical importance and the future prospects of Scandinavian IS research. Hakken and Winner asked important and, I believe, urgent questions of the Scandinavian IS research community. Hakken framed one of the problems he saw within Scandinavian IS research as related to a dual set of goals “a political agenda of social transformation along

with a professional agenda to legitimate system development”. Hakken observes how these two goals interfere and create a problematic research arena, since IS researchers try to fulfil two different and in many respects contradictory research interests at the same time. Winner is more direct in his criticism when he asks explicit questions such as how it is possible that ideas similar to the ones stemming from the UTOPIA project, about the “friendly” user interface, also came out of “purely profit seeking capitalist firms” such as Apple and Microsoft. I interpret Winner’s overall question to be something like: We can see that Scandinavian IS research has influenced our understanding of the design process, but has this change lead to any significant changes in products and in society as a whole?

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To me, these questions reveal some very fundamental problems in the way IS research is performed and legitimized in Scandinavia. Today I see a research field seeking its role and most of all seeking its clients. Who are the clients of today's IS research? Are they the professional practitioners, the management of the organizations, or are they the users of the systems? I would say that these three examples actually constitute only one client, i.e. the client engaged in the design and development of information systems as a support in organizations or as a workplace tool. I believe this focus on the professional, organizational and workplace aspects of IS must be complemented with research efforts on other aspects, such as: How are information systems changing our society, our organizations, our social structures, our understanding of information and knowledge, our understanding of information need and overflow, our understanding of ethical and aesthetical aspects of the use of information systems?

If we examine the short history of the Scandinavian Journal of Information Systems we will find that out of 40 articles that have been published so far, 34 are about the improvement of the practice of systems design and development, and only 6 articles reveal other interests. This may be contrasted to the six keywords on the cover of the journal where we find: Information technology, Organization, Society, Use, Design and Development. Of the 40 existing articles there are very few that, even with a generous categorization, could be classified as something else than Design or Development. Maybe SJIS is not representative for Scandinavian IS research as a whole, but I believe it reflects the IS research

field quite well. Almost all information systems research is focused on the practice of making information systems. But what is the reason for this interest? I would like to question the idea that the most important goal of information systems research should be to improve that practice.

It seems as if researchers within information systems only consider two things as valid as goals for their research. Either they see research as a way of helping system designers in their practice or as a way of helping users or buyers to get what they want or need. Both of these views are so closely related to the existing actual practice that they become too narrow and introverted. IS research has been too focused on the workplace as the fundamental object of study and continues to be so when it is becoming more and more obvious that information systems are of great importance in every part of society and influence all human activities in one way or another. It is within this very broad context that researchers have the responsibility to create understanding, and to make the development and use of information systems intelligible. It is not only the practitioners of one single craft that are their clients, but all human beings.

My point is not that practice is unimportant, on the contrary, but practice has to be seen in a larger context, i.e. as a part of modern society. This means that practice is of extreme importance, but has to be analyzed and judged not by its own scales of measurement, but in relation to some overall values and ideals. Practice needs to be criticized, analyzed and reinterpreted. Today there is a lack of challenging formulations about what constitutes good use of IT, except for the

formulations made within practice. But these formulations are still only one aspect of the overall use of IT in society. When we talk about this overall use, IS research could and should be one source of new ideas and knowledge. Practice could be seen as the means by which we, as a society, try to reach the goal of a good information society.

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If we want fundamental changes in practice we need to influence the values and ideals of practitioners. The obvious task of the practitioner is to act in a situation. Acting is the sign of the practitioner. The practitioner is always in a position where he is thrown into a situation he is expected to respond to. It is often assumed that acting and reflecting are conflicting tasks which demand some kind of division of labor, where the practitioner acts and the researcher reflects. If we want to change practice we have to question this assumption. Both the researcher and the practitioner have their own practice in which they should both act and reflect.

To reflect is an ability and an activity possible to improve. To improve that ability is the main purpose of research. In order to reach this goal the researcher has to deal with different tasks. The overall task is of course to *stimulate reflection*. This could be done by creating and discussing *ways to reflect* and *things to reflect upon*. If a researcher studies practice he should not only try to depict what really goes on, he should also try to make unintelligible things and actions intelligible, make unseen things visible, make unproblematic things problematic, and maybe most important he should make

well-informed statements about the ethical and aesthetical consequences of where present practice will take us.

The researcher has to face the practitioner with new interpretations and reformulations of their reality. To do so, often means having to discuss and say unpleasant things, but the purpose of research is not to please the practitioner.

So, where are the challenging formulations about practice? And where are the analysis and criticism of the prevailing practice? As researchers in information systems we have a responsibility not only to refine the existing practice, but to constantly question its existence, purpose and means.

My claim is that as researchers we have to accept that our overall goals are to help society to formulate overall goals about what could and should constitute good use of IT, i.e. what should constitute a good information society.

So, what we have to do is to ask questions about what these new technological advancements really mean, such as new ways for communication, a fast growing IT-infrastructure, more and more systems with some kind of intelligence, a multi-media explosion and a new artificial and virtual reality. Someone might argue that these developments are not real developments since the basic principles of the technology are still the same. But what are the arguments behind this statement? Of all the discussions today about the impact of information technology in working life, in society, in our homes, etc., we have to analyze what changes are real, stable, important, irreversible, time-dependent and what changes are only trends, fashions, buzzwords? Langdon Winner asks the question in the last number of SJIS: "Can

Scandinavian-style efforts change technological systems and their consequences in truly substantial ways, or are we dealing with the superficial, essentially cosmetic aspects of technological interfaces, leaving the deeper structures unaffected?"

It is of course not only the responsibility of IS researchers to answer these questions, but I will argue that IS researchers have a unique competence. We have for a long time been struggling with the relation between information technology and human activities in a unique way. We have not only been studying this relation as social scientists, i.e. studying it as a social and human phenomenon where the technology has been treated as a "black-box". And we have not studied it as "true" computer scientists, i.e. studying it from the perspective of the computer where the use and the users are treated as a "black-box". Instead we have seen as our task to try to *design* that relation, to make it work and to study the consequences. The relation has been our primary object of study and that has forced us to develop a unique "double" or interdisciplinary competence.

I believe that this is the competence needed today to give answers to all the questions mentioned above. But I do not think that IS researchers take this responsibility seriously (of course there are exceptions). Winner comments on this by saying that in the USA the idea that technology is something to be shaped in a democratic way is never regarded as a research question, and he also states that universities and development laboratories seldom focus upon broader social dimensions for fear of jeopardizing private and government funding. But, even

if Winner sees a big difference between research interests in USA and in Scandinavia, I would still argue that we have not done much yet. The research is still aiming at improving a practice, with a limited interest in the larger consequences of these actions.

Maybe a comparison with literature studies makes some of my concerns visible. Literature studies can be seen as a true science of the artificial. Literature as an academic discipline has two major goals, even if one is quite dominating. The minor goal is to teach people how to write books, how to be a writer, a kind of school of authors. The major goal is to interpret the artifacts (books) created by authors, by conducting critical studies and analysis. This type of analysis and criticism is in many cases different from what you will find in newspapers where book reviews are frequent. Academic literature studies try to analyze the timeless and decisive books, the dominating styles and trends. They try to make present and historical aesthetical and ethical frameworks visible and to show their relations to other cultural and societal expressions. Literature studies try to analyze how literature affects, influences and shapes society and how literature is shaped by society and its citizens. Information systems research could and should have a similar role in analyzing the significance information systems have for society and its citizens.

If we try to do this it will be important to study the nature of information systems (or IT artifacts). We should ask questions such as: What is information technology, where is the technology shaped, decided and produced, what are the driving forces and the influences in this development, where is the technol-

ogy evaluated and by whom, how is it distributed and deployed, how do large scale implementations of information systems change society and the basic structures in organizations and people's everyday life, etc.? These are large and very difficult questions, but that is why research exists. Society should not spend money on research resulting in knowledge that could have been produced based on a commercial interest. IS researchers need to take these large questions seriously by transforming them into serious and carefully carried out research projects.

I think there is a need of *critical technology studies* carried out by information systems researchers. I am convinced that these studies would differ from similar attempts made by social scientists or researchers specialized in general technology studies. And I believe this is why both Hakken and Winner, despite their doubts, still believe in Scandinavian IS research. Paradoxically it seems as if the traditionally strong focus on practice (on design, development and implementation) that I have criticized throughout this text as being too narrow, has given the IS research community a very unique competence. My hope is that the community will take care of this competence and use it in new research areas and that the community will be an important actor in the ongoing shaping and construction of the future information society.

■
E. Stolterman 128