

A New Agenda for User Participation: Reconsidering the Old Scandinavian Prescription

Jørn Flohr Nielsen & Niels Jørgen Relsted

*Institute of Management at University of Aarhus
DK-8000 Aarhus C, Denmark
ecoflohr@ecostat.aau.dk*

Abstract

A considerable degree of user participation is found in current system development and implementation projects in Scandinavia. Obviously, there is a strong belief in the necessity of user participation. Still, practitioners and researchers face severe problems in defining the right way of involvement. Still, there is a lack of convincing empirical evidence concerning the relationship between user participation and systems success. In this article we argue that participation is of little use if the agenda excludes organizational issues. If only technical options are discussed, fundamental problems in the organization may remain unsolved.

Partly based on empirical findings from a comparative Danish study, this article ana-

lyzes how participation may change with the changing relations between user, user organization and IS-professionals. We find that the usefulness of participation is highly dependent on user type and organizational function. Different projects require different agendas and participants. In some cases indirect users are the most important when it comes to fundamental improvements, and they are often excluded from participation.

We propose a framework that explicitly focuses on the process from problem to issue on the agenda and we conclude that it is time to change the agenda for user participation. To help in clarifying the emerging roles of users and IS-professionals, the research agenda may be changed as well.

1. Introduction

User participation in system development and implementation has been normal in Scandinavia for several years, and not merely so because participation is deeply rooted in our democratic and unionized society. In textbooks, often American, it has been argued that user participation is the way to attain system success, to get better system quality and to overcome resistance to change.

System failure is still found, however, and practitioners face severe problems in the implementation processes. A striking notion for the reason for implementation problems is the primitive state of technology in the field of user participation or user involvement (Friedman 1989). Prototyping methods will probably not solve this problem. Neither will better interpersonal skills of the developers. Above all, support of the users' primary work has to be ensured, and both practitioners and researchers have to deal with the problems connected with the isolation of implementation projects from other parts of the organization. It is no easy task, but it is our main argument that the technology of user participation has to be improved exactly at this point.

The aim of this article is to offer a reconsideration of the concept of user participation from this perspective. We will argue that most implementation research has severe shortcomings in defining adequate measures of success, and the use of narrow measures may itself lead to the neglect of organizational aspects. We will argue that participation on organizational issues is getting still more important as the technological and organizational environments of users change. And, partly based on empirical findings

from a comparative Danish study, we will argue that the usefulness of participation is highly dependent on user type and organizational function, but organizational changes may always be crucial to improvements.

Finally, we propose a research strategy based on a framework that explicitly focuses on the organizational issues on the agenda and the process of making—and constraining—the agenda for user participation.

2. Organizational impact and user participation

The implementation of new computer systems implies some change in the way users work, in some cases even fundamental organizational change. This process of change is no simple matter and information technology not the single dominant factor to determine organization design. Technological determinism is not merely rejected on the basis of empirical research; technocratic views have to be condemned as both unrealistic and dangerous (Child & Loveridge 1990).

To understand the impact of computing, you have to understand how the implementation process is managed. And the term 'implementation' has to be perceived in a wide sense as an important interactive process that involves both the adjustments of systems and organization structure (Robey 1987, Borum & Christiansen 1993).

System features, even of superior technical quality, cannot do it alone; they have to be valued by the users. User participation could then be seen as the key to change and to improvements in the quality of implementation decisions. Un-

fortunately, the relationship between user participation and system success is not very well documented in empirical research. Significant correlations are rare and generally the results may be characterized as contradictory.

One explanation of the missing general evidence may be that the usefulness of participation is contingent on other variables. In recent research it is shown that both technological, personal and organizational conditions may be of importance (Franz & Robey 1986, Baroudi, Olson & Ives 1986, Tait & Vessey 1988).

Especially the latter study is noteworthy, because it explicitly used a contingency approach and because of some important findings. First of all, system success was found to be significantly related to the amount of resources put into the development process, while the degree of user participation had only insignificant though positive effects on system success. Put differently, participation is not a certain way to achieve system success and every serious way has its costs.

The fundamental assumption that participation always helps in overcoming resistance to change may be wrong. Organizational conservatism that prevents the proper use of new technology can be even stronger in organizations that offer participation.

In an international study of different projects in European services, the efficacy of participation in this respect appears to depend on the presence of cultural and institutional supports in the society (Child & Loveridge 1990). Lack of support combined with legally enforced participation will make the acceptance of radical organizational solutions more difficult. Though the authors suggest that

these supports are found in Scandinavia, there are probably important differences at the organizational level. The problems of organizational conservatism are certainly found in Scandinavia as well.

Organizational conservatism should only be regarded as a problem if it stands in the way of individual or organizational performance. This is an important underlying assumption in our user oriented perspective on participation, and despite our non-prescriptive intentions we cannot totally avoid other value based assumptions, which are often hidden behind labels such as "resistance to change", "power equalization" or in theories of participation in organizations in general (Dachler & Wilpert 1978).

If performance improvements is the ultimate purpose of implementing new systems, performance should be the ultimate dependent variable in MIS research. Normally the dependent variable is a more simple one, such as user satisfaction. A comprehensive review of dependent variables in MIS studies shows that researchers seem to avoid performance measures because of the analytical difficulties of relating performance to information system efforts (DeLone & McLean 1992).

Some steps forward have been made in a Finnish study of participation which at least uses more performance related dependent variables (Saarinen & Sääk-sjärvi 1990). Yet, some of the conclusions like "good balance between both user and analyst participation" seem rather vague, but there is some support to the central argument of noting the qualitative aspects of participation.

In summary, there is only modest evidence of the positive effect of user participation on system success, but recent

research makes progress in specifying the conditions of participation and challenges the conceptual and methodological limitations of earlier studies. Thus, both the concept of participation and the concept of system success should be examined more carefully and more comprehensive models should be formulated.

Even the testing of empirical associations between independent variables and dependent variables can be questioned, and at least it is proposed that "factor models", the theoretical underpinning of this testing, are complemented by "social process models". It is then recognized that several perspectives can contribute to our understanding of these complex processes (Borum & Christiansen 1993). The pitfall is lack of focus, but according to Newman & Robey (1992) researchers could focus on the encounters and episodes in system development processes. Then antecedent conditions and a sequence of events are seen as explanations of outcomes. In this way it will be possible to analyze more carefully how user-analyst relationships are initiated, maintained and altered and what the consequences are (Newman & Robey 1992).

At another level, this is in line with the argument that to understand system development processes and the theory behind them, a historical perspective is needed (Friedman 1989). Thus, both the differences in computing experience and the changing conditions are stressed.

3. Changing conditions

Participation is expected by employees in Scandinavia. From being an ideology

it has become the normal way of doing development and implementation work (Høyer 1990). Despite some differences in actual projects, the influence from the socio-technical approach (ETHICS) or rather the collective resource approach is very visible as the quality of work and trade union perspectives are taken quite seriously (Bansler 1987, Ehn & Kyng 1987). Compared to other EC-countries, more formal rights are given to employees in Denmark and actual influence has increased at all stages of the implementation processes (Neergård 1992). In many cases actual participation exceeds formal rights.

In the history of computer system development, from the start dominated by efforts to solve hardware problems and later software bottleneck problems, we are now passing through stages dealing with user related problems (Friedman 1989); and the conditions for user participation are still changing in fundamental ways.

This is reflected in the emerging roles of users and IS professionals, and in the changing interrelationship between user organizations and vendors.

Developments in information technology, i.e. standardization in hardware and software, open systems, downsizing, client-server, windows, CASE and standard applications, are the most conspicuous reason for changes. These developments, notably standardizations, can be seen as influencing the way contracts between users, organizations, vendors and professionals are being made in the IS-field. Generally, there is less complexity and uncertainty in contracting meaning less user dependence on specific IS-professionals.

Users and their organizations change as well. Although individual users are very different (in regard to job, education, age, tasks etc.) they have generally become more skilled and independent. Often, implementation decisions are taken at a low level in rather decentralized organizations. Most importantly, users are no longer dominated by negative reactions towards new systems and more system development is user demand driven. The tendency towards standardization is reinforced by user demands as well. In the personal computer market users have preferred certain software products and therefore the type of machines that conform to hardware standards required by the software. Thus, more software products become available as well (Gurbaxani and Whang 1991). Even software standardization is often very attractive to the users.

Though some system adjustments still have to be made, we will argue that standardization and open systems are making many technical issues less controversial to users. Much of the computer technology is becoming invisible to them. This makes organizational issues the most important, i.e. the adjustment of administrative procedures.

The IS-professionals see the 4GL and CASE tools as a way of keeping the benefits of standard systems without all of their costs. It is easier to offer fast and efficient development in reaction to changes in user requirements.

To complement this general picture of users working in independent organizational units as a central element in the new context of computer use, we have to add the growing diversity in computing.

Kommunedata, the service bureau servicing nearly every Danish local gov-

ernment, constitutes an example of many of these trends. However centralized originally, the diversity is now pronounced. At least in the sense that the degree of centralization varies across the different functions and systems of local government. Some systems are still highly centralized, though allowing users to acquire more of their own functional capabilities. In other areas the tugs of centrifugal force have been strong. To maintain some of its monopolistic position, Kommunedata has become more sensitive to customer-demand, and the municipalities on their side more often buy their services from alternative suppliers (Borum 1990).

In general, we assume that information technology no longer generates conflicts as it did previously, and that the technical issues are of less interest in connection with participation. Instead, it is on organizational issues we expect a possible increase in user participation. A closer look at data on individual user perceptions might support this view.

4. Empirical findings

This article is no empirical research report in a traditional sense. Certainly, we do not end up making statistical testing of an a priori stated hypothesis. In advancing our main arguments, however, we draw on empirical data that focus on computer impact at the level of individual users. Thus, we find strong indications of varying usefulness of participation and power of organizational change to supplement system implementation.

These data were mainly gathered in a mail questionnaire in 1988 and form part of a comprehensive study of the impact

TABLE 1. Participation and system satisfaction

<i>"How have you been involved in the selection of the latest implemented systems?"</i>			
	<i>Accountant (N=65)</i>	<i>Counter-Top Worker * (N=139)</i>	<i>Secretary (N=122)</i>
Participated**			
Satisfied with systems (Percentage of 'participated'-group)	74%	63%	82%
Involved by colleague or other employee or supervisor			
Satisfied with systems (Percentage of 'involved'-group)	52%	51%	49%
Not involved			
Satisfied with systems (Percentage of 'not involved'-group)	20%	47%	29%
*Frontline employee in social service departments, technical departments and tax departments respectively (Incl. professionals)			
**52% of the accountants, 24% of the counter-top workers and 33% of the secretaries participated directly.			

of current computing technology in Danish municipal organizations. Questionnaires were sent to 10 different types of employees, not necessarily direct users, in a stratified sample of 39 municipalities. Of the 10 types of employees in each organization, 4 were clerks performing client/citizen-related tasks (counter-top workers), 2 were accountants (budgetmakers) and 4 were secretaries. 84 % returned the questionnaire.

Since the jobs and tasks within each group were rather similar, the study offered rare opportunities of comparative analysis. Thus, it was possible to analyze effects of participation controlling for other independent variables.

The first result was a rather surprising one. There seemed to be no significant relationship between participation and system satisfaction of counter-top workers, though the corresponding analysis in the groups of secretaries and ac-

countants showed significant correlations. To explain this difference, we turned to other characteristics of the counter-top workers and their system use. For example, they used more centralized systems and their participation was at a less direct level. Going from no participation to a very limited form of participation may have small effects (Table 1).

Still, it would be dangerous to conclude that participation is of less value in these functions as long as our analysis is limited by the simple concept of system success.

The second result stressed this point. In fact, when using self-reported quality indicators, participation did have a notable positive effect at the counter-top group as well. Those who participated personally more frequently reported faster case work or increased "customer"-satisfaction.

TABLE 2. Change in counter-top work

<i>Percentage of counter-top workers* reporting changes in "some" or in "high" degree in mentioned directions during recent 3-4 years</i>				
	<i>Without recent changes (N=63)</i>	<i>With new technology (N=38)</i>	<i>With organizational changes (N=15)</i>	<i>Both technological and organizational changes (N=23)</i>
Faster case work	41%	53%	47%	61%
More "Customer"-satisfaction	24%	39%	60%	48%
*Frontline employee in social service departments, technical departments and tax departments respectively (Incl. professionals).				

The third result showed the importance of the organizational issues. Actually, there seemed to be alarmingly small improvements in service quality and cost efficiency due to the implementation of new systems, but the data offered some evidence of the positive effect of supporting organizational change. New systems had some impact on service quality indicators, but more improvements were reported when system implementation was combined with organizational change (often delegation). And organizational change seems to be the important part (Table 2).

The question of organizational change was open-ended, but it is important to note the ongoing decentralization and service development projects in several Danish municipal organizations. Respondents typically stressed delegation and to a lesser degree service training.

Differences between the user types account for fundamental variations in computer impact and participation. This is summarized in Table 3, that indicate the general importance of participation

though its role may be different in different jobs.

Percentage of counter-top workers *) reporting changes in "some" or in "high" degree in mentioned directions during recent 3-4 years.

There are other contingencies, that constrain or enable computer impact and participation. This is indicated in the correlations shown in the Appendix. Especially decentralization of computing has to be taken into account, though it did not per se have the anticipated strong impact on jobs or performance. In this respect our results seem to be in line with recent studies indicating that the quality of computing services experienced by end users is independent of whether computing is centralized or decentralized (Danziger *et al.* 1993).

Still, decentralization of computing is changing the conditions for participation as shown in significant positive correlations. It is simply easier to let users participate when decisions on computing are made in user departments. Probably it will be easier to supplement implementation with the organizational adjust-

TABLE 3. Computer impact in different jobs

	<i>Low client-contact</i>	<i>High client-contact</i>
<i>Low autonomy jobs</i>	<p>Secretaries (Strong computer impact on job design) Direct participation correlates — system satisfaction (No data on performance in this group)</p>	<p>Counter-Top Workers (Medium computer impact on job design) Direct participation correlates — “customer”-satisfaction</p>
<i>High autonomy jobs</i>	<p>Accountants (Strong computer impact on job design) Direct participation correlates — decentralized computing — system satisfaction Participative influence correlates — power of central offices in budgeting decisions</p>	<p>Counter-Top Professionals (Weak computer impact on job design) Direct participation correlates — “customer”-satisfaction</p>

Source: Appendix and Flohr Nielsen (1991)

ment as well. Even minor software implementations could be seen as opportunities to change administrative procedures. Thus, the question of computing decentralization and organizational performance could be more complex than noticed in studies of the quality of computing services or other narrow measures of success.

Attitudes towards change and participation could give some indications of this problem. No less than 85 % of the respondents totally agree in the statement that “to give employees influence on the implementation of technology, they should get more technological knowledge”. And this agreement is significantly correlated to own participation. Our interpretation is that too often technical issues dominate the agenda. At the same time, 26 % totally (and 47 % partly)

agree in the statement that “implementation of new technology should be the opportunity of greater rearrangement of work”.

Our explorative empirical analysis cannot, of course, show how the new forms of participation should be. But an obvious consequence of the findings would be to examine why the apparently relevant organizational issues are—or are not—taken into consideration during implementation projects. Is participation the key to this consideration?

5. Towards an organizational agenda perspective

Our discussion so far has shown that empirical research offers limited explanations of the role of participation and

how it is related to measures of success. Our data, though, offers some evidence of the possible link between participation and performance.

At the same time our data shows that information technology is no strong vehicle for organizational change or performance improvements. To understand how participation can facilitate change, we have to understand the fundamental processes and conditions for change. We think a crucial part is what goes on before formal participation takes place.

The background is complex. The contextual boundary conditions for participation consists of interacting societal and micro-level variables (Dachler & Wilpert 1978). Even in a public context there are notable environmental and internal changes that influence—and are influenced by—the use of information technology. These fundamental changes make the outcome of specific implementation processes difficult to predict. Often the intentions of individual actors in the organization seem so ambiguous or unstable that the decision making assumes some of the features of a garbage can process (Cohen, March & Olsen 1972, March 1981). The encounters between developers and users during implementation may be the garbage cans in which solutions, problems and participants sometimes are connected in a quite unstructured way.

Normally, however, the selection of participants and issues is constrained by routines. In many projects technical skills and technical issues are favoured. In other projects powerful employee representatives are co-opted and other issues considered. Routine constraints make the processes manageable, but in

some cases they exclude valuable opportunities.

This is exactly our point. The agenda for user participation varies due to the varying repertoire of key persons. Opportunities of organizational change are handled differently in different projects and some of the performance gaps felt in the organizations are not taken into consideration.

We propose a framework that explicitly focuses on the agenda setting process in the user organization. Thus we stress how several encounters during the process of change take place and how issues get excluded. This framework, which draws on our empirical findings (including a small interview part) and the general conceptualization on participation made by Dachler and Wilpert (1978), is illustrated below.

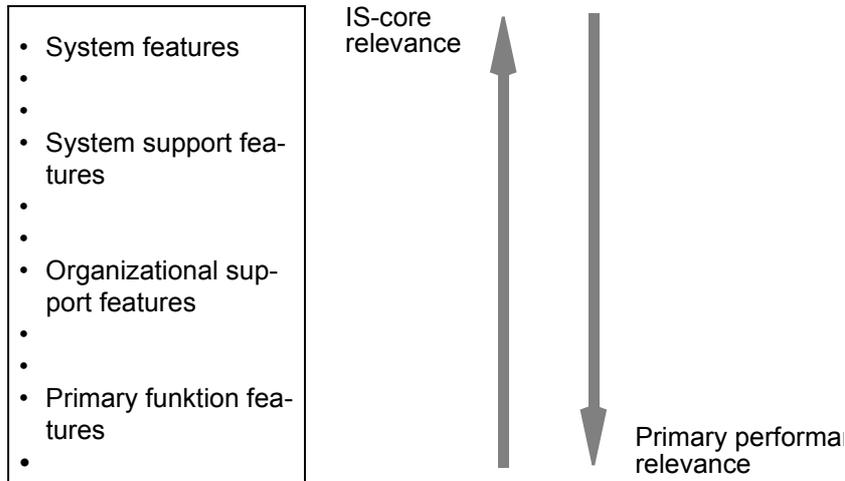
The agenda

The first step is to describe the agenda of participation. In principle any problem can become an issue on the agenda. But if the impulse to change is related to the use of systems, system features are the first options to be considered. They are the routine issues. It is much more difficult to get organizational problems on the agenda.

Possible issues are enumerated in Figure 1. Moving down the list, the issues become less likely to appear.

Then, system features have a physical appearance and are easy to grasp. In our terms they are the visible parts of hardware and software and the options are on size, color, speed, convertability or other simple technical quality dimensions. Because each dimension is rather divisible, these issues are well-suited for

FIGURE 1. The Agenda Issues



bargaining processes, and as prices decrease agreement is easier to attain.

System support features are the software means to provide user support. “User friendly” menu-driven interfaces in different forms are often the options on these issues. Organizational support features are the organizational means that are normally seen as supplements to the software support. But the—more or less formally established—interpersonal relations can be more than supplements. As recognized in recent research, the support provided by one’s peers is not merely important; sometimes it is a substitute for software support and preferred by users (Trauth & Cole 1992).

From the perspective of the individual users, support is crucial wherever it comes from. But normally the crossing of organizational boundaries to get support raises difficulties and uncertainty. Then the individual users often see nearby support as an ideal, and to the degree it is not fully attainable, they get sensi-

tive to the establishment of proper interdepartmental or interorganizational relations. As a respondent in our study put it: ‘Our own systems department seems to be just as far away as Kommunedata (the service bureau)’.

Primary function features are related to the adjustment of administrative procedures. The need for adjustment may follow from the introduction of packaged software, but in principle, adjustments can be totally unrelated to system use. Focus may shift to indirect users and managers. The options are about job design and dependencies between jobs and departments, and conflicts between actors are more frequent.

Often the requirements of users are self-contained tasks and decision-making authority at an individual level. The options may include training activities and, generally for these features, the options cannot be defined in advance by researchers or IS-professionals.

FIGURE 2. The Agenda Setting Process

Indsæt figur marked
“side 13”
Figur reduceres
til 82%

Then, research on the agenda is difficult to structure and at this point evidence is sparse. Though there are strong indications of the relevance of organizational issues in our study the link to participation can only be documented by the interviewed user's generally stated agreements.

Constraints

The next step is to trace the constraining factors. This is illustrated in the enumeration in Figure 2. The fundamental purpose is to describe the process from problem to issue focusing on the ‘agenda setting constraints’ or what others have called the ‘immediate context’ of participation (Dachler & Wilpert 1978). As the arrows indicate it is individual persons

that perceive and act within structural restrictions. In the encounters certain persons can be connected to certain issues and the selection of participants is always important. The resulting step from issue to ‘impact’ may then be highly constrained or predetermined.

In the model personal perceptions of the users are central. To initiate a change process individual users have to perceive a performance gap between what is actually done and what ought to be done. Performance gaps are caused by factors in the users’ primary task environment, typically changes in technological supply or in the demand of customers. But even when a performance gap is perceived, it may never become an issue that is considered in the encounters. And

even issues taken into account may never result in action.

Process factors are obviously constraining the agenda. Resource constraints and time pressure make some considerations difficult. In the sense that routine drives out non-routine issues, this is a version of Greshams Law of Planning (March & Simon 1958). It is difficult to increase the capacity of consideration, and development tools as CASE or prototyping can be seen as both enabling and constraining the development work (Orlikowski & Robey 1991). End user development is perhaps the ultimate form of participation but limited in scope and certainly not without problems of documentation etc.

Personal factors are often the root of conservatism. Developers stick to their old routines. Users and managers anticipate problems when organizational options are considered. Everybody can be afraid of issues that involve conflict. But people are different and the individual characteristics are important. While the number of skilled users is increasing, there are still inexperienced users to take care of as computer use expands into new areas. Indirect users often withdraw if the issues are defined only as system issues. Anyway, our data shows that the degree of individual computer use is significantly related to participation (Appendix and Flohr Nielsen 1991)

Structural factors include systems in use and along with the organizational structure they form the basis for any change process. For example, both the decentralization of computing and decision making enable participation. Complex systems and complex tasks call for participation (Tait & Vessey 1988). Above all, the selection of participants is

to some degree determined by the authority structure - and the power structure - of the organization. We will stress that power and conflicts, whether manifest in behaviour or only anticipated, restrict many change processes and even more so in larger projects.

The step from agenda issues to action has been simplified in the model. Of course, impact will be contingent on personal and structural factors and the effect on performance still has to be analyzed. But our data indicate support of the relationship in a municipal context.

The undefined outcome concepts are intended. Measures of performance cannot be predefined; they have to be closely related to the specific users' tasks.

As indicated in the model, the outcome or impact of the process is never final. Any outcome constitutes a starting point for the next project. Thus, every project will be influenced by previous experience.

A simple case might illustrate our perspective. In 1986 a university research unit introduced a word processing system, that was almost solely chosen by one of the secretaries. She knew the system from colleagues in another unit with slightly different tasks and to them it worked well. She was able to control the process, because the issues on the agenda was restricted to quite technically oriented questions of system features. The other secretaries felt like (and was) novices and supported her choice regardless of the systems obvious limitations. Neither secretaries or other actors took problems connected to the division of labor into consideration at this time. After the implementation, the abovementioned organizational problems prevailed and the word processing system appeared to be a

failure. This does not mean that participation does not work, but apparently irrelevant issues got most actors to withdraw from active participation in the process. Five years later, during the introduction of the next generation system, both system and organizational problems were taken into consideration and everybody found the issues, technical and organizational, relevant. At that time most of the secretaries were fairly experienced users of word processing.

In this case some of the problems may be explained as a lack of proper support of the users during the process (Mumford 1983b). But as similar patterns are reported in several of our local government interviews and seem to be part of a more general trend towards new roles of actors, a deeper understanding is needed. Only few problems will probably be solved by giving more influence to single experienced users who do not understand the organizational consequences of their choices.

Our model seems limited by focusing on the fundamental and initiating steps in the process and by enumerating factors. More comprehensive models should include the impact more explicitly. However, we are not entirely speculative. We claim that the model is based on evidence in prior research. Furthermore, our contingency approach is not only an "it all depends"-statement. Our data—though limited to the context of Danish local government in a particular period—offers support in specifying how participation and its usefulness varies.

Implications for practitioners

Prescription is dangerous on this basis beyond redrawing attention to organiza-

tional aspects. And there are some pitfalls to be noticed.

First of all, we do not recommend large and unmanageable projects. The implementation of a large and complex system does not necessarily call for participation with a broad agenda. It is probably mostly in smaller projects that organizational options should be considered and indirect users (or even customers) be involved. There is always a trade-off between manageable projects and projects adjusting administrative procedures. Prescriptions on clear responsibilities in projects may still be useful (Mumford 1983a). But responsibility should rather be defined in terms of user's functions than in terms of computer systems, rather be seen as an outcome than as a point of departure.

When the implementation calls for considerations of organizational issues, the role of the IS-professionals will change. We just stress the need to broaden the task of IS-professionals, which Mumford (1983b) pointed out several years ago. We still think they have a role to play, because technical knowledge could be needed. But providing technical knowledge will be a part-time job. Instead, they are often outsourced and much of their working hours will be used in adjusting administrative procedures. And they will be useful because of their experience from similar projects in other places. Especially if they know something about the users' functions.

The often mentioned difficulty of involving managers will probably diminish as the issues become relevant to organizational performance.

Implications for research

Our presentation of the agenda model should be seen as the first step in formulating propositions for further empirical research. Researchers have to be of more help in exploring the boundaries of user participation and system implementation projects. How are organizational issues without easily grasped technical options being handled? We propose this question as the point of departure for practically relevant, but non-prescriptive, studies.

There are, still, theoretical problems to be solved. Though we are indebted to social process models, web models and other theories that do not preassume cause-effect relationships, we are fully aware that they can be confusing. Researchers have to establish the link to useful propositions. We think the focus on the agenda is one way to establish this link.

There are methodological problems to be solved as well. Process models call for case-studies. But both qualitative and quantitative methods or combinations could be used within our framework. Though the agenda is not necessarily a written document and many of the encounters not formal at all, the contents of the agenda could guide otherwise unstructured interviewing in case-studies. In comparative studies such as our own it could enrich datagathering from a user perspective.

Anyway, Scandinavian researchers are in a unique position to contribute in this field because of the special experiences made in Scandinavian organizations and the traditions of doing interdisciplinary research.

6. Conclusion

Some of the textbook prescriptions on user participation appear to be outdated. Technology, users and their organizations have changed. Especially in Scandinavia, participation has both become institutionalized and expected. Developers are seldom in a position to decide whether users should participate or not. In some cases, users have taken over.

Both practitioners and researchers seem to have overstressed narrow measures of success and simple concepts of participation.

The encounters between individual users, user managers and IS-professionals are important for the implementation process. But the issues taken into consideration are the important parts of the process. The relevance of issues should be defined in relation to the performance of the user's primary tasks. Probably, the organizational adjustments have to become issues on the agenda for participation.

If technology is poor it must be developed. We find strong indications of the poor technology of user participation and previous research and prescription seem to be of little help. We offer some empirical evidence of the point that one way to improve participation is to take organizational issues into consideration. Researchers must not keep on neglecting a substantial point: What are the issues discussed during the implementation processes?

There is certainly a need for more in-depth analysis of different processes to understand the effect of different agendas. This constitutes a classical dilemma for researchers in this field; is it possible to investigate the processes without giv-

ing up comparisons and clarity? We think so. In bridging the gap between abstract process theory and practical research we propose a framework with the agenda as a point of departure.

Finally, our framework and our data stress the importance of contingencies and differences. The increasing differences between users and between projects call for a—more dynamic—contingency approach. How “it all depends”, has to be further specified in future research.

Acknowledgements

We would like to thank colleagues at the Institute of Management, University of Aarhus, participants at the IRIS seminar 1993 and two anonymous referees for helpful comments on earlier drafts of this paper.

References

- Attewell, P. & Rule, J., (1984). Computing and Organizations: What We Know and What We Don't Know. *Communications of the ACM*, (12).
- Bansler, J., (1987). *Systemudvikling. Teori og historie i skandinavisk perspektiv*, Studentlitteratur, Lund.
- Baroudi, J.J., Olson, M.H. & Ives, B., (1986). An Empirical Study of the Impact of User Involvement on System Usage and Information Satisfaction, *Communications of the ACM*, Vol. 29, No. 3.
- Borum, F. (1990). Divergence and Convergence: A Community Analysis of the Structuring of the Danish IT Field. In F. Borum & P.H. Kristensen (Eds.) *Technological Innovation and Organizational Change*. New Social Science Monographs, Copenhagen.
- Borum, F. & Christiansen, J.K. (1993). Actors and Structure in IS Projects: What makes Implementation happen?, *Scandinavian Journal of Management*, Vol. 9, No. 1.
- Child, J. & Loveridge, R. (1990). *Information Technology in European Services - Towards a Microelectronic Future*, Blackwell, Oxford.
- Cohen, M.D., March, J.G. & Olsen, J.P. (1972). A Garbage Can Model of Organizational Choice, *Administrative Science Quarterly*, Vol. 17, March.
- Dachler, H.P. & Wilpert, B. (1978). Conceptual Dimensions and Boundaries of Participation in Organizations: A Critical Evaluation, *Administrative Science Quarterly*, Vol. 23, March.
- Danziger, J.N. & Kraemer, K.L. (1986). *People and Computers*, Columbia University Press, New York.
- Danziger, J.N., Kraemer, K.L., Dunkle, D.E. & King, J.L. (1993). Enhancing the Quality of Computing Services: Technology, Structure and People, *Public Administration Review*, March/April.
- DeLone, W.H. & McLean, E.R. (1992). Information Systems Success: The Quest for the Dependent Variable, *Information Systems Research* (3:1), March.
- Ehn, P. & Kyng, M. (1987). The Collective Resource Approach to System Design, in Bjerknæs, G., Ehn, P. & Kyng, M. (Eds.). *Computers and Democracy - A Scandinavian Challenge*, Aldershot, Avebury.
- Flohr Nielsen, J. (1986). Informationsteknologi og organisation i kommunerne, in Jens Genefke & Ole Ø. Madsen (ed.). *Driftsøkonomiske aspekter af ny teknologi*, Aarhus Universitetsforlag, Århus.
- Flohr Nielsen, J. (1989). Teknologien og budgetbissen - nyt teknologiske træk i den kommunale budgetlægning, *Nordisk Administrativ Tidsskrift*, No. 1.
- Flohr Nielsen, J. (1991). *Administrative job under ændring - ny teknologi hos kom-*

- munalt ansatte*, Working Paper, IFV-skrifter 1991-1, University of Aarhus.
- Franz, C. R. & Robey, D. (1986). Organizational Context, User Involvement and the Usefulness of Information Systems, *Decision Sciences*, July.
- Friedman, A.L. (with Cornford, D.) (1989). *Computer Systems Development: History, Organization and Implementation*, Wiley, Chichester.
- Gurbaxani, V. & Whang, S. (1991). The Impact of Information Systems On Organizations and Markets, *Communications of the ACM*, Vol. 34, No. 1.
- Hackmann, J.R. & Oldham, G.R. (1980). *Work Redesign*, Addison-Wesley, Reading, Massachusetts.
- Høyer, R. (1990). *Informasjonsteknologi og brukermedvirkning i 80-årene: Fra ideologi til arbeidsform*, Working Paper 1990/5, Norwegian School of Management, Oslo.
- Ives, B. & Olson, M.H. (1981). User Involvement in System Design: An Empirical Test of Alternative Approaches, *Information and Management*, 4.
- March, J.G. & Simon, H.A. (1958). *Organizations*, Wiley, New York.
- March, J.G. (1981). Footnotes to Organizational Change, *Administrative Science Quarterly*, Vol. 26, December.
- Mumford, E. (1983a). *Designing Human Systems for New Technology: The ETHICS Method*, Manchester Business School, Manchester.
- Mumford, E. (1983b). *Designing Secretaries*, Manchester Business School, Manchester.
- Neergaard, P. (1992). *Planlægning af ændringer - Administrative systemer m.m.*, Samfundslitteratur, København.
- Newman, M. & Robey, D. (1992). A Social Process Model of User-Analyst Relationships, *MIS Quarterly*, June.
- Orlikowski, W.J. & Robey, D. (1991). Information Technology and the Structuring of Organizations, *Information Systems Research* (2:2), June.
- Robey, D. (1987). Implementation and the Organizational Impacts of Information Systems, *Interfaces*, Vol. 17, No. 3, May-June.
- Saarinen, T. & Sääksjärvi, M. (1990). The Missing Concept of User Participation. An Empirical Assessment of User Participation and Information Systems Success, *Scandinavian Journal of Information Systems*, Vol. 2.
- Tait, P. & Vessey, I. (1988). The Effect of User Involvement on System Success: A Contingency Approach, *MIS Quarterly*, March.
- Trauth, E.M. & Cole, E. (1992). The Organizational Interface: A Method for Supporting End Users of Packaged Software, *MIS Quarterly*, March.

Appendix: Correlations on participation in the local government study

The table is shown on the following page.

Note: Different performance measures were used in the accountant and counter-top worker categories; no data on performance in the group of secretaries.

*): MPS= *Motivating Potential Score* (Hackmann & Oldham 1980); used as defined in Flohr Nielsen (1991)

(a): significant correlation on “customer”-satisfaction reported by counter-top workers ($p < 0.10$)

(b): significant correlation on central office power in budgeting decisions reported by accountants ($p < 0.05$)

TABLE A. Rankorder-correlations (Kendall tau b) (N=329)

Indsæt vedlagte tabel mærket:
"Side 19"

