Participation: ‘bounded freedom’ or hidden constraints on user involvement

Debra Howcroft and Melanie Wilson

User participation in information systems development is often surrounded by assumptions that the resultant system will be a success, will reflect user needs, and that the process results in an empowered workforce. This paper argues that underlying these foreground rational assumptions are instrumental, politically motivated justifications driving the need to involve users.

Introduction

Within information systems development, the notion of user participation has become institutionalised practice, almost to the extent that many believe that not involving the users precludes success. For those developers who focus upon technical elegance, there is acknowledgement that lack of acceptance by users will be as catastrophic for the information system as so-called ‘technical’ deficiency. Yet, despite increasing consideration of the human and social aspects of systems design, systems development is replete with failures and much has been written about the ‘software crisis’ (Brooks, 1987). Aside from a few notable exceptions, there is a dearth of literature that directly addresses the problem of recurring failures of information systems, despite engagement with user participation. In this paper we aim to shed some light on this ‘thorny problem’ by focussing specifically on the dissonance between espoused rationality and the lived experience of technology which is more typically characterised by power, politics, and conflict.

Historically, the process of information systems development is characterised by rationality whereby actions are justified on rational grounds and the appropriate
organisational rituals are adhered to (Boland and Pondy, 1983). This view is based on the functionalist paradigm which ‘seeks to provide rational explanations of social affairs’ (Burrell and Morgan, 1979: 26). Such a perspective is epitomised by the assumption that information systems are designed to contribute to specific ends, ends that can be articulated, are shared, and are objective. Once built and installed, the system, itself an ‘icon of rationality’ (Franz and Robey, 1984), will improve the efficiency or effectiveness of decision-making processes. This rational myth assumes a ‘foreground’ position with a number of supporting ‘props’ which enable actors to behave in accordance with certain cultural expectations. The developers of information systems are seen as ‘systems expert’ (Hirschheim and Klein, 1989), rational thinkers whose profession is based on their ability to solve abstract, complex problems, with computers being programmed to solve their problems. The tools and methodologies associated with this process also possess an aura of rationality, often based on mathematical and logical processing techniques as opposed to reliance on human intuition, judgement and politics. The construction of the information system is driven by the detailed requirements specification which represents the transformation from rational organisational reality to a more concrete machine-oriented level. When performing these transformations, developers are expected to follow the details of numerous structured techniques, which, in a Tayloristic fashion, facilitate the division of labour, provide an audit trail, and produce a so-called maintainable system. The resultant information systems is thus seen as the ‘embodiment of rationality’ (Newman, 1989).

Yet despite the predominance of the rational myth within information systems development, the ‘background myth’ of political behaviour is of equal importance (Boland and Pondy, 1983). In fact, for some twenty years the political and conflictual nature of IS development within organisations has been commented. Take, for example, the following:

… political interests are of basic importance to the actors in the organisation. Political actions are not isolated episodes to be interpreted within the context of rational problem-solving efforts. It is the other way round. The rational elements are tools used by participants to gain new ground or to protect ground already won. They also serve as ‘facades’ to mask political motives and legitimise self-interest (Franz and Robey, 1984: 1209).

Thus, organisations can be used as arenas for political activity where actors engage in conflict and negotiate their private interests (Markus, 1983; Mintzberg, 1983; Pfeffer, 1981), although not necessarily in an overtly political manner.

In this paper we aim to consider both the rational and the political motivations surrounding the issue of user participation in systems development. Following a well-founded tradition, our view of user participation is consistent with the conceptualisation of systems design and implementation as a process of social contention and political, as well as technical, determination (Franz and Robey, 1984; Markus, 1983; Noble, 1984; Winner, 1980). Whilst user participation seems central to any discussion of systems development, there is often a substantial gap between espoused theory and concrete practices and here we highlight some of these contradictions. We begin by providing an overview of some of the popular rationalist motivations for adopting participatory design principles, highlighting some of the underlying instrumental justifications. The following section includes consideration of the structural constraints on these practices, from the perspectives of management, developers and end-users. The empirical section discusses a field study within a large European public sector organisation where user participation was an accepted part of institutionalised practice. The case study illustrates the interplay of both the rational and political perspectives. Finally, conclusions are drawn.
Interpreting the rational myths

‘User participation = system success’

Focussing specifically upon user involvement and participation within IS innovation we see evidence of the rational myth. For many years, studies investigated the effect of user participation on system success and it was considered self-evident that user participation had a significant influence on the eventual success of the system. Undoubtedly, for practitioners and academics alike, the involvement of users is often perceived as one of the most crucial factors influencing systems success (Davis and Olsen, 1985; Doll and Torkzadeh, 1988; Mumford and Weir, 1979; Mumford, 1995, 1997) and from the mid-1970s onwards, the notion of user participation was emphasised increasingly within the literature (Friedman with Cornford, 1989). However, two comprehensive studies have queried this assumed direct causal link between user participation and systems success and the results have shown to be inconclusive (Cavaye, 1995; Olson and Ives, 1981). So, despite numerous claims that user participation will have a positive impact on systems development projects, it is difficult to determine its precise impact, if indeed any exists at all. There are information systems development projects where users participate but which are not successful, yet there are also projects which are successful but where users do not participate.

‘Systems development needs to address social concerns’

Further evidence of rationality can be seen in the tradition that has advocated that users have the right to influence the systems that they will use (Newman, 1989); that they should be given better tools instead of having their work or skills automated; and that their perceptions and feelings about technology are as important as technical specifications (Clement and Besselaar, 1993). The increased focus on user concerns is a welcome step since historically, technical issues have tended to dominate information systems development, often at the expense of organisational issues (Sahay and Robey, 1996). Indeed, failure to adequately deal with organisational issues is often cited as significant factor in cases of failure (Lyytinen and Hirschheim, 1987; Benyon-Davies, 1995; Flowers, 1996; Mitev, 2000). As the technology has become increasingly complex and the organisational climate more challenging, the ‘technicist’ or hard approach to IS development has come into question, with a move towards more progressive approaches which consider the social nature of systems development (Ehn, 1988; Lyytinen, 1992). Whilst attempts to involve and ‘empower’ end-users are laudable, nonetheless, they implicitly entail the rationalist assumption that consensus and agreement within existing organisational structures are possible.

Attempts to operationalise a more socially-oriented perspective can be seen in relation to the principles of socio-technical design (STD), which originated from the Tavistock Institute of Human Relations in London and was later exemplified in the ETHICS methodology (Mumford and Weir, 1979). This oft-cited representative of participatory models is primarily a socio-technical approach to systems development that operationalises user participation as a key technique in the realisation of the socio-technical ‘fit’ which is concerned with the design of the technical system and the design of work practices to maximise job satisfaction. This approach has been particularly influential in Scandinavia, beginning in the late 1960s when a number of experimental projects consisting of union and employer organisations focussed on the equally important goals of job satisfaction and higher productivity (Ehn, 1988). These projects faced severe difficulties during systems implementation as the differing interests of management and employees were evidently irreconcilable. Within

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1 An early study of the links between system success and user participation (Olsen and Ives, 1981) showed positive, negative and inconclusive findings with only 36% of the studies supporting a positive participation—success link. Cavaye (1995) updated this review, looking at research from 1982 to 1992, she also found that only a minority (37%) revealed a positive relationship.
Scandinavia a number of case studies which empirically tested the principles of STD ideals revealed that they are weakly followed in practice (Bjorn-Andersen and Eason, 1980; Hedberg, 1980). As Hedberg (1980: 32) contends:

Sociotechnical designs are not enough ... As long as managerial perspectives dominate problem formulations, design tasks and reward systems, resulting systems will at best improve organisations from a managerial point of view.

Although the STD approach was fairly short-lived in Scandinavia, its critical appraisal gave rise to the emergence of the more radical trade unionist approach in the 1970s.

The trade unionist approach is strongly rooted in the tradition of Scandinavian industrial relations, where over 80% of employees are members of labour unions (Iivari and Lyttyinen, 1998) and trade unions are seen as legitimate representatives of weak resource groups and have long played a proactive role in technology and work design. This approach was an attempt to pose a radical antithesis to the STD approach which was seen as inherently managerialist, being based on a ‘harmony perspective’ (Nygaard and Sorgaard, 1987) whereby organisations are seen to consist of harmonious assemblages of people committed to achieving a set of unitary goals. Despite a number of major projects2 that were intent on promoting industrial democracy and quality of working life, over time the trade union approach has lost much of its critical edge (Iivari and Lyttyinen, 1998) and somewhat ironically it is now difficult to tell the difference between that approach and STD (Bjerknes and Bratteteig, 1995). In practice, the notion of joint decision-making and worker influence has virtually disappeared (Kyng, 1998). The pioneer of ETHICS (Mumford, 2000) explains this decreasing popularity of STD by looking at the changing business climate and the move to business process reengineering and ‘lean’ production techniques where notions of job satisfaction and employee empowerment no longer feature. It appears that the socio-technical approach ‘was a product of a particular socio-technical regime’ (Avgerou, 2002: 55).

Without doubt, the Scandinavian tradition and its attitude towards user participation has been extremely influential in the IS literature. However, it has been suggested (King, 1998) that much of this debate and commentary has centred around information systems researchers rather than practitioners and that in reality, the building of systems is very similar across national boundaries. This is particularly likely given the globalisation of the computer industry and its dominance by a relatively small set of firms (Carmel, 1997) which thus shape the trajectory of systems development. This implies that the impact of this tradition on practice is questionable, as noted by (King, 1998: 207)

We might see more variance across national or regional boundaries in the way we talk about information systems development than in the way systems are developed.

*User participation will result in improved user requirements*

Within systems development, the problems associated with the elicitation and accurate specification of user requirements are legendary (Hirschheim and Schaefer, 1988), along with the associated costs of rectifying expensive misunderstandings, which are seen as becoming exponential as the development progresses. On a rational level, participatory practices are viewed as a means by which systems developers are able to tap into employee knowledge and opinions. Given that the application-specific knowledge that is required to build most large systems is thinly spread amongst systems developers (Curtis et al., 1988) it has been argued that ‘... participatory design is needed to gradually build up the knowledge required for developing and using a new system’ (Kensing and Munk-Masden, 1993: 78). Thus user participation

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2 For example, NJMF in Norway, DEMOS in Sweden, DUE in Denmark and UTOPIA in Denmark and Sweden. See Ehn and Kyng (1987) and Floyd et al. (1989) for further details.
is encouraged as a means of eliciting more accurate user requirements, since poorly understood requirements are often equated with poor quality systems (Mumford, 1995). It has been argued, that these requirements techniques share common characteristics with inscription devices enabling the translation of problematic organisational situations into agreed representations (the requirements specification) (Westrup, 1999). These inscriptions are commonly seen as providing legitimate knowledge of the organisation and act as a resource that resolves tensions, decontextualises situations and creates homogenous representations of these contexts in order to enable the information system to be implemented successfully.

During the requirements’ analysis process, aside from the facilitation of information exchange and knowledge transfer it is also assumed that improved communication and co-operation between systems developers and end-users will enable legitimisation for the change process that will take place. There is a tendency to identify many problems as revolving around the ‘communication gap’ between systems developers and end-users (Knights and Murray, 1994) and participatory practices are often posited as some kind of panacea. No doubt, improving communications will often be beneficial, but the tendency to attribute organisational problems to a failure in communication without too much attention to the conditions that give rise to communication failure is inevitably limited. Organisations both reflect and reproduce the social inequities in society, hence the essentially contestable nature of organisational relations (Alvesson and Willmott, 1996). It seems unlikely that improvements in communication alone will guarantee resolution of problems surrounding the development and use of information technology. The literature which advocates improved communication between developers and end-user, although bolstering the semblance of purposive-rational managerial techniques, simultaneously obscures the organisational politics within which this process is embedded.

Within the IS literature, the issue of ‘irrational’ user resistance is renown (Hirschheim and Newman, 1988). Behavioural problems (such as sabotage or absenteeism) arising from the systems implementation are viewed as a root cause of system failure (Dagwell and Weber, 1983). User resistance is often portrayed in a pejorative way and as something that has to be eradicated, thus privileging the management position that rationality in the organisation should prevail over the interests of users (Newman, 1989). Indeed, attempts at enrolment of end-users during the requirements analysis stage is often recommended as a strategy for increasing user commitment to the implemented system and as a tool for overcoming resistance to change (Wong and Tate, 1994). The process of consultation can act as a ‘safety valve’ so that deep seated grievances and concerns can be aired before the system is finally installed.

To summarise, the rationale for introducing information systems that claim technological efficiency with improved working practices seems self-evident. However, many of the rational claims that advocate the benefits of adopting user participation can also be interpreted in an alternative manner, one which queries the rationality and highlights some of the more instrumental, political motivations (Table 1).

Developing and implementing information systems is a highly complex, political process that can involve considerable shifts in the organisational equilibrium. From a management perspective, user participation has much to offer. Management can reap the benefits of such an approach since: commitment by all users increases the likelihood of success both of the system and of the organisation; enhanced communications and improved understanding of user requirements and work practices enhances prospects for business success; and the involvement of employees can improve productivity and quality as they search for better solutions to systems design and the completion of tasks. Hence a high level of participation may be desirable (especially if the new system will reduce skilled work) insofar as it will reduce levels of absenteeism and staff turnover whilst improving efficiency. This acceptance of the necessity to satisfy the needs of management is further endorsed, as Mumford (1997: 310) goes on to argue that if companies are to introduce user participation practices, then it requires ‘a benefit that pays dividends and increases profits’. Yet, it
Table 1: Alternative readings of the rational myths

<table>
<thead>
<tr>
<th>Espoused rationality</th>
<th>Alternative readings</th>
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<tbody>
<tr>
<td>Success</td>
<td>Evidence is highly questionable</td>
</tr>
<tr>
<td>Need to address social concerns</td>
<td>Assumes consensus is possible</td>
</tr>
<tr>
<td>Maximise the socio-technical fit</td>
<td>Ignores issues of power and politics</td>
</tr>
<tr>
<td>Attends to humanitarian issues</td>
<td>Is a product of a particular era and no longer popular given current political climate</td>
</tr>
<tr>
<td></td>
<td>Empirical examples highlight problems in practice</td>
</tr>
<tr>
<td>Improves developers understanding</td>
<td>Requirements specification acts as a unifier</td>
</tr>
<tr>
<td>of user requirements</td>
<td>Enables grievances to be aired in the early stages of development</td>
</tr>
<tr>
<td>Facilitates communication between</td>
<td>Informs developers of any impending industrial relations issues</td>
</tr>
<tr>
<td>developers and end-users</td>
<td>Overcomes resistance to change</td>
</tr>
<tr>
<td>System will reflect organisational</td>
<td>Increases user commitment</td>
</tr>
<tr>
<td>objectives</td>
<td></td>
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would be naïve to assume that end-users are unable to ‘see through’ these alternative readings of participatory practices. Ultimately, the disingenuity on the part of managers may lead to a façade of so-called humanistic concerns. Managers’ motives cannot be taken on face value, thereby producing a dissimulation between promises to end-users about improved working conditions and the potential for increased exploitation. This is coupled with a number of structural constraints on the process itself, which will be discussed next in relation to management, developers and the end-user’s perspective.

**Structural constraints**

The issue of *who determines* the extent of user participation is an interesting one and goes to the heart of the power relations inherent in the workplace. From the perspective of management, ‘creating a feeling’ of participation is the easy option. It offers a ‘win-win’ situation, giving them the alleged advantages of participation whilst they hold on to their power and control (Heller et al., 1998). It enables them to promote an image of themselves as a progressive, human-centred manager, whilst at the same time reducing resistance to change and hopefully improving productivity along the way. Generally speaking, some managers ‘pay lip-service’ to user involvement, often resorting to symbolic rather than substantive support (Davis and Olsen, 1985); this tokenism is often reflected in the composition of the work group. It has been suggested (Hunton and Beeler, 1997) that enabling individuals to set their actual participation level proportionate with their desired level is likely to optimise attitudes and behaviour (Vroom and Jago, 1988). Yet this is not necessarily at the users’ discretion, and depends upon their position within the organisational hierarchy. Given these power structures, users at the lower organisational levels may be prevented from participating, even if they wish to do so.

Although advocates of user participation are more than likely to be concerned with improving the conditions of end-users, this may not be a persuasive argument for managers when considering whether or not to adopt such an approach. After all, as we have seen above, it is managers who will initially make the decision as to what type of approach is used in the first place, and will be instrumental in prescribing the level of involvement desired. Further, this is acknowledged by one of the cham-
pions of user participation. Mumford (1997: 310) explicitly states that if user participation is to be adopted in industry it ‘must be seen to reduce risk by contributing to organisational stability in ways that are recognised by management’.

Ultimately, the decision about whether or not to involve end-users rests with management—they define and limit the terms under which user participation takes place, they draw the boundaries delineating the participation process, and dissent is excluded by these practices and the process of selecting representatives. The issue of exclusion of dissent relates closely to that of ‘pseudo’ involvement (Newman and Noble, 1990) whereby only compliant users are selected. Yet, the exclusion of non-compliant users does not imply that dissent will disappear altogether. It is likely to continue, and even fester beneath the surface, resulting in a lack of commitment (if not outright resistance) to the system on the part of the dissenters.

From the perspective of the systems developer, they are placed in the untenable position of making promises on behalf of the system to distinct parties on either side of the organisational conflict—promises that are potentially contradictory and incompatible. Hence, some promises cannot be realised and are de-prioritised at the expense of others. Given the inequality of power distribution in organisations, it is probable that managers concerns will receive most attention since failure to meet their approval could automatically close off possibilities of a new system. On the other hand, for the systems developer, the needs of the employees cannot be ignored, if they are to be successfully enrolled in user participation. Failure to do so would compromise the goal of overcoming resistance. Whilst this would not initially preclude the implementation, nevertheless it could ultimately result in rejection. Hence, for the systems developers, the conflictual nature of organisations has implications for the resultant systems acceptance or non-acceptance. It would appear that disappointment—and potentially failure of the system—is contingent on people’s expectations of what the system can actually deliver (Lyytinen and Hirschheim, 1987). In order to enroll managers and employees as distinct sets of users, systems developers have to engage in different discourses and appeal to the concerns of each party. Hence, if developers have been involved in creating a partially idealistic view of the system—making promises by ‘selling’ the system to the users in their attempt to enroll them—then, what happens when the system fails to live up to its promises? Surely, rejection by users is a likely result of disillusionment. When promises of participation in decision-making turns out to be merely tokenistic—that is when rhetoric materialises as reality—in return for increased productivity or commitment on the part of employees, it is hardly surprising that disillusionment ensues. This resentment may well be targeted at the information system and result in its ultimate failure.

Elsewhere, it has been argued that analysts pursue their interests indirectly in part by driving the development process and leading and coaching the users (Beath and Orlikowski, 1994). Yet, we cannot always assume that the systems developers will be amenable to the idea of participation, seeing it, as they might, as destabilising, undermining the consistency and rigour of development practices and storing up compatibility and maintenance problems for the future (Beirne et al., 1998: 152).

This can result in users being given a relatively passive role to play despite heavy emphasis on user involvement and users being expected to take responsibility for project outcomes. These anomalies in participatory practices reflect contradictions in the context within which development occurs and contrive to make the relationship between users and systems development personnel problematic (Beath and Orlikowski, 1994). In practice, although participation may appear simple, the act of managing the process is far from straightforward, particularly since it involves encouraging people to enter unknown areas and adopt unfamiliar roles. This vision of a ‘complexified’ organisation (Ashmos et al., 2002) creates a decision-space of multiple decision-makers and informants, with conflict and opposing views highly visible.

From the end-user perspective, the rhetoric of involvement is intended to enrol the users, and incorporates notions such as, decision-making, democracy and representation—all of which are said to lead to improved job satisfaction. Thus, partici-
participation provides what Industrial Relations people call ‘voice’, seen as key to influence sharing. One crucial issue entailed in participation is the equality or inequality among participants in their ability to influence decisions in organisations, yet this may in fact be unattainable because of the unequal distribution of skills capacity and political capacity. On the issue of skills equity, the ETHICS methodology, for example, relies on members of the design team to determine the balance between technical options and human needs. The context thus enacted is one in which some are designated technical experts and others designated consumers of technical expertise (Beath and Orlikowski, 1994). It may well be the case that the more technically-oriented participants veer towards technical solutions to social problems (especially since technical fixes are often seen as the easier option since human conflict is often more problematic than technical problems). Given the likelihood of an uneven distribution of skills it is probable that the expert users (that is, technically competent end-users) will come to dominate because control over technical resources is tied to structures of power, meaning and norms (Bloomfield and Best, 1992; Orlikowski and Robey, 1991).

In a treatment of the rhetoric surrounding the Information Engineering methodology, Beath and Orlikowski (1994) perform a deconstruction of skills equity which reveals the ambiguity surrounding who is really ‘in charge’ of systems development. For although users may have the organisational knowledge required, it is information systems personnel who do the thinking and the designing. Thus, the possible educational disadvantages suffered by employees which mitigate against their ability to fully participate could be crucial, yet this is frequently ignored in participatory approaches (a notable exception being Wagner, 1993). Despite the potential shortcomings in end-user ability to participate fully in the process, they will nevertheless be expected to comply with the sign-off process undertaken by management. Given their lack of skills, this complicity may hide outstanding insecurities with the project, yet these end-users are simultaneously expected to take responsibility for the system and all its limitations. Beath and Orlikowski (1994) stress that whilst proponents of participatory practices may advocate strong user engagement, in reality the systems developers have almost complete control over the development process, with users playing a passive role. Yet, towards the end of the development cycle, users are expected to be responsible and accountable for the outcomes of the process. This may explain, partly, why a redesign of systems is often undertaken with users ‘after the fact’ of design by experts, even though this is often well hidden (Beirne et al., 1996).

Indeed, Neumann (1989) formulates rhetoric as a cause of employee resistance. He explains that rhetoric plays a role in that resistance because of the creation of ‘mixed messages’ and ‘double-binds’ on the part of management. These appear as contradictions to the employees who respond by not complying with the demands made by management. Meanwhile, in relation to the use of rhetoric by systems developers, whilst there are different motivations for employing user participation methods, in attempting to enrol the end-user, the human-centred design aspects of user participation are more likely to be emphasised. The promise of empowerment is to give employees more power to use their judgement and discretion in their work, thereby encouraging them to utilise their skills and experience for the benefit of the organisation. On the face of it, this may seem appealing, especially to those who experience alienation as a daily reality, and this perhaps goes some way to explaining why compliance is achieved in many situations. Yet, in reality, empowerment is rarely sought for its own sake, more often it is used as part of a firm’s business strategy which is intended to improve organisational performance (Psinois et al., 2000). Whilst the concept of empowerment may have appeal to management, in reality they prefer to select command and control models with which they are most familiar (Agyris, 1998).

To conclude this section, it seems that within the IS literature there are a number of rational reasons posited for the adoption of participatory practices in systems development projects, yet on closer inspection we can see political motivations also play a substantial role. From this perspective, participation can be framed as essen-
tially a managerialist approach. Managers are usually the prime instigators of new initiatives and projects, end-users are assumed to be keen on greater involvement in decision-making processes, an agreed consensus between management and non-managerial employees is thought to be achievable, and an increased level of end-user commitment is anticipated, along with the assumption that the developed system will be a success.

**Research method**

Given the context described above, we were interested in further understanding how these rational myths operationalised at the local level, given the often contestable nature of organisational relations. In order to highlight the interplay between espoused rationality and the political circumstances surrounding user participation, we include a summary of findings from a qualitative, interpretivist case study. The role of the case study is to provide something of the rich detail of the lived experience of information systems, as well as exploring the research issues detailed above. The field study involved a case study approach, since this enables the researcher to ask penetrating questions and capture the richness of organisational behaviour (Gable, 1994); this was particularly relevant given the size and diversity of the organisation in question. A case study approach is also recommended in instances where there is a desire to gain insight into emerging topics (the ‘how’ and ‘why’ questions), but there is no need to control behavioural events or variables (Benbasat *et al.*, 1987; Yin, 1989).

The study was designed to investigate the organisational environment within which user participation took place and used multiple techniques of data collection. Since the research was primarily descriptive, individual interviews with key actors provided the primary source of data collection, enabling the respondents to propose their own insights as a basis for further enquiry. All the interviews were semi-structured and the majority were tape recorded. Cross-checking was carried out using different subjects’ perceptions of the same incidents and any differences in perception were then probed during the interview process. However, these differences were of interest in themselves since they highlighted the conflict and contradictions that were in operation. The transcripts from the tape recordings were organised according to topics or issues raised in the interviews and were analysed by themes that emerged from the literature review as well as those that emerged during the data collection period. Formal structured methods for identifying themes were not used, rather during the process of analysis, there was a movement from a more open-ended approach (in common with some of the ideas from Grounded Theory (Glaser and Strauss, 1967)) towards a more closely directed one. It would be more accurate to describe the study as cross-sectional rather than longitudinal as the interviews took place over a relatively brief period of time. What we have then is more of a ‘snapshot’ view of the user participation process in action.

In addition to interviews, the study also entailed an analysis of the various texts and representational practices associated with user participation. Indeed, much of the story which unfolds below was pieced together through company reports and statements. The interviews and observations concerned three main groups of people: those involved in developing information systems; non-IT business managers; and, those expected to use the system (the end-users).

**Case study**

As stated above, this case study is a slice from the organisational life of a large, European, bureaucratic company. It was selected for this study because it provides

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3 On occasion there was some reticence to the tape-recording of interviews, especially on the part of managers, and in these instances it was decided that note-taking was less threatening to the interviewees, given the sensitive issues being discussed.
a typical example of an organisation that has institutionalised user participation during the process of introducing new information systems. It is of particular interest because it is currently undergoing IT-enabled organisational change that is intended to respond to the changing demands of the market. The field study is illustrative of a number of points discussed above, namely: it reveals how managers, adopting a rather authoritarian stance, can use the well-entrenched process of user participation as an instrument of increased control as opposed to one of democratic enhancement in the workplace. The reader will also note the existence of a number of contradictions between what is said to be company policy regarding the user participation process and what is embodied by the structure that surrounds the process.

**Background and setting**

FfoneCo, a national telecommunications operator, came into existence in 1984, employing more than 12,000 staff and comprising ten integrated companies. To put the situation described in its context, arguably the emergence of aggressive national and international competition had been encouraged by the potential to earn high returns coupled with market liberalisation—despite the fact that FfoneCo has a monopoly of basic voice services. This process of change, which began in 1984, with the change of FfoneCo’s status from that of a government department to a state-sponsored body, is ongoing. Company policy acknowledges that changes in the highly competitive external environment has impacted on the way in which information systems are developed, to the extent that they are perceived to be key in terms of implementing the strategic responses to competition. As a consequence, one of the core objectives set for the information systems personnel is to ensure that the information systems will support and enable corporate-wide business strategy.

Being state-owned, the major shareholder is the government who retains 65% of the shares within the organisation. With increasing pressures on the successful development of corporate information systems, the company has modified fairly significantly the participative dimension of systems development in order to ensure that change was managed effectively. One of the ‘sweeteners’ that has been offered to company employees (via the trade unions) is that their acceptance of changes to fundamental business processes facilitated by new information technology systems has resulted in a 15% stake in the company’s equity. Hence the ‘partnership approach’ to IT-enabled change which began in 1995 when the Employee Share Ownershersh Agreement was initially discussed. It was assumed that by ensuring employees have a financial investment in the successful running of the company, that they would commit to IT-enabled organisational change that was planned for the future. The remaining shareholders include two other large European telecomm operators who jointly own 20%.

**Systems development at FfoneCo**

Chief responsibility for the development, implementation and maintenance of all corporate information systems lies with the IT Department, an in-house IT function that has around 300 staff spread among eight divisions. Over the last ten years or so, participation has become part of the culture with a series of IT standards formalising the level of user involvement. This culture is further consolidated by recent company policy documents:

The process of consultation with unions in regard to all the implications for staff of technological change, is one to which the company remains fully committed. (Statement of Company position on current industrial relations issues, October 1995).

This policy is formalised within the company structure via the establishment of a number of joint fora, the structure of which is represented in the diagram below.

The Systems Liaison Committee (SLC) was established to monitor the development of IS projects and is comprised of management representatives from the various
functional units and a number of staff/union representatives (the ratio of end-users/management representatives is not stipulated). Initial ideas and proposals for development are initially submitted to the SLC for approval. However, the majority of projects are management driven, as one user commented: ‘most of the initiators are senior business managers, we rarely recommend anything’.

The SLC is significant because its existence reveals the extent to which user participation has been formalised within FfoneCo and because of its influence on the development trajectory and implementation of all the organisational information systems. It is a powerful body, consisting of representatives from the various functional areas of management and diverse staff representative bodies. In order to maintain its legitimacy, the SLC must be seen to respond, at least occasionally, to users’ dissatisfaction. For example, in the case of the development of an information system to provide a geographical database of telephone networks in a particular area, the development was halted because it was unpopular with users due to poor usability and perceived adverse effects on work-related roles and responsibilities. This reveals that in the case of non-agreement regarding modification to the information system the SLC can block its implementation. In this context, potentially, the SLC has a considerable amount of power. Arguably, in some cases the makeup of the group may well constrain the voicing of similar disagreements. This was difficult to establish in practice, but is hinted at by a remark from the chair of the SLC that some users would wait until after the meeting to say what they ‘really’ thought. More importantly, what is of concern here is the fact that users are instructed and expected to participate as part of their job.

Once the SLC has approved a project, user participation and involvement is then arranged at the various levels and the project commences. Each new project has a designated business owner or sponsor and for larger projects a development steering group is formed from the constituencies of vertical interest within the organisation (that is, the group comprises managers from relevant business areas and the IT Department). Each project is developed by a team, which in turn, is jointly managed.
by two project managers—a user project manager from the functional business unit and a manager from the IT Department. The latter manages the technical development, the former manages business user input into the project in areas such as end-user representatives, user groups, end-user test teams, yet at the same time they act as project sponsor within their own functional unit etc. So, in this context, it is the business manager who controls the user participation process. The development team usually consists of at least one user representative and a number of developers. User representatives are encouraged to actively participate, although they have little or no knowledge of the technical elements of systems development. It is questionable to what extent these user representatives, who are most certainly in a minority position within these teams and lack the requisite technical abilities, are able to voice their opinion, or, more importantly, influence the decision-making process.

As mentioned above, the need to develop strategic information systems in a rapid manner, coupled with the increasing complexity of user requirements, has led to a change in the company’s approach to IS development. Whilst innovative development approaches have been adopted to improve the technical aspects of development (with the use of CASE tools and prototyping approaches), of greater importance is the high degree of user participation that now characterises all the IS projects that are undertaken. Indeed, participation, having been employed as the tool for information systems development for more than a decade, is deeply entrenched in organisational culture. So deeply ingrained is user participation in the culture of FfoneCo that other ways of working are almost unimaginable. As one IT project manager commented: ‘User participation is taken as normal. It is the only realistic way of working—user involvement is essential’.

Although key users are interviewed to elicit requirements, a core user group is also formed to provide information throughout the requirements analysis process and to verify that the proposed system will reflect these requirements. This stage of the process has been described by one systems developer as allowing ‘all the political conflicts to be resolved so that we can agree a consensus’. One interpretation of this process is that the user group serves to endorse the system.

The end-user groups are made up of individuals with a variety of backgrounds, described by one staff representative as: ‘some technically oriented some people oriented’. One criterion for selecting participants pertains to having ‘a good working knowledge of the area’. In other words the knowledge is domain dependent. In order to bridge the gap between domain specific knowledge and information systems development understanding, extensive training (up to 3 weeks in some cases) may be provided. During the period of participation, the end-user may concentrate solely on the information systems development, depending on the type of system being developed. The length and depth of participation will also depend on whether the development process concerns an existing information system or is part of establishing a totally new system. This complies with evidence from other studies (for example see Doll and Torkzadeh, 1988 and King and Lee (1991)).

The ability of end-users to provide input without constraint is compromised by restrictions regarding choice. Choice would appear to be an important element of the participation process. However, the choice concerning whether to participate or not is denied end-users and participation is seen to be as enforceable as any area of employment. As one IT Project manager admitted: ‘basically, you have a job and can be moved to do this job’. As a consequence, resistance on the part of selected participants will be met with force in some situations, notwithstanding the variability of ‘the individual manager’s style and the IR implications’ (member of the development steering group).

Instrumentalism of managers: ‘playing the political aspects’

The difficulties associated with finding the ‘right’ user have been noted elsewhere (Benyon-Davies et al., 1997) and this problem was certainly foremost in the minds of both business and IT managers, particularly given time and resource constraints.
They were keen to avoid appointing someone that would cause them ‘unnecessary complications’, preferring instead to select someone who would help them arrive at a satisfactory set of requirements, test the developed system, and champion the project within their own work group. An issue rarely up for consideration in a formal sense is the selection and nomination of end-user candidates. This is clearly the prerogative of management, who selects the ‘most suitable’ participants from the staff. It is unclear which criteria are used to assess suitability, although it is likely that those sharing company goals will appear the most attractive. Hence even before any meetings have taken place, the process of selection brings into play the power angles at work in the organisation. As one business manager said ominously:

‘If developing the system from scratch, we need more active user reps. Therefore, we must select the right reps and play the political aspects’.

One tactic in ‘playing the political aspects’ is obtaining the consent of the unions, which is seen as beneficial in relation to the system as implemented. As one IT project manager observed: ‘We want a system that the union has bought into’. Seen from an instrumentalist perspective, union involvement in the change process, would help reduce end-user resistance. However, it would be wrong to assume that the end-user representatives have no power to adversely affect the outcome of the system development process. Indeed, as one IT manager indicated ‘they could block the implementation … but it’s not normal’. Another project was also described by a business manager as ‘a complete nightmare politically … mainly because of the grief caused by the unions’. So, consensus is managed but cannot be assured. Much to the annoyance of managers, as one business manager succinctly added: ‘systems do get delayed due to industrial relations issues’. If user groups cannot agree and if they possess enough political muscle, they can overturn a decision or halt a project that has been given the go-ahead. There was an instance of this reported where the project was implemented, but resulted in substantial user resistance at the implementation stage. As one systems developer commented

We need the users on our side, if they aren’t the project won’t survive … The unions are powerful too. Nothing gets done without their agreement.

Until 1998 most of the IT development took place off-site, within the department’s own business accommodation. More recently, IT management realised that benefits were to be gleaned from on-site development and one manager commented that this enabled additional opportunities for informal communication between users and developers, thus enhancing communication and improving the level of good-will between the two parties. One developer endorsed this view, noting that the ‘informal grapevine’ was far more useful when it came to her awareness of user related problems and tensions, enabling her to keep on top of any emerging industrial relations issues. This helped negate the possibility of resistance to some of the contentious change management issues surrounding the implementation of new systems. Indeed, the user representatives were aware of the favourable attitude towards them from the developers and they were made to feel like ‘one of the lads’.

So, rather than understanding managers desire for participation as driven by altruism and concern for democracy, it is equally viable to portray their motives as a result of a recognition of the failures of other methods of developing information systems. This is recognised in the following remark made by a manager from the IT Department:

Without user participation there are delays, the wrong software is delivered, the system doesn’t work. With user participation we deliver solutions a lot quicker …

Whenever projects crossed boundaries and spanned several functional areas, a high level of user participation was deemed necessary. In relation to such a project one IT manager commented: ‘without the users we never would have finished this project… the requirements were so complex’. Thus, participation not only provides a window onto industrial relations issues, but is also a useful tool for providing clarification of business functions and enabling developers to cope with project complexity.
Given this picture of underlying tensions and potential conflict, (which is rarely acknowledged by actors within the organisation) the Project Managers (from both the IT Department and the business area) are in a precarious position. Clearly, it is in their interest to ensure that the participative process is a success. This, in part, entails emphasising the harmonious nature of team relations and thus playing the role of conciliator. On the one hand, developers have a certain empathy with end-users, as revealed by the comment from a developer on the geographical information system project mentioned above:

it’s not all rosy for the users. We have to try to understand what they do, what their problems are, what they have to put up with. That means spending more time on the shop-floor.

Whilst this is at variance with some of the literature that suggests developers tolerate the users on sufferance (Amoako-Gyampah and White, 1993; Newman, 1989), it does give us grounds for optimism. However, this cannot overcome the situation of having to answer to different and competing sets of interest. The propensity of developers to act as negotiators and ‘smooth over’ difficult situations is captured in the following quote from a long-standing systems developer who is keen to stress that once the ‘right’ representatives have been selected,

people become very focused on delivering...It is not an ‘us and them’ relationship. They are considered part of the project team once they’re here. There is no divide, we even take tea breaks together.

Discussion

This paper aims to make a contribution to our understanding of user participation in information systems by better understanding the dissonance between the espoused rationality that is presented in much of the literature and how this process is carried out in actuality and at close quarters. This dissonance has been highlighted using an empirical study that can be read in alternative ways. For the purpose of simplification and in order to illustrate the points made earlier in section 2 we will focus here on two such readings. At face value, it could be argued that participation was adopted in order to: ensure greater understanding between users and developers; to help develop systems that more accurately reflect the wishes of the people that ultimately, will operate them; develop systems that support organisational objectives, and are thus more successful. In addition, greater involvement by end-users will help foster able and ‘empowered’ employees that can offer substantial contributions to the organisation. However, a more cynical reading that questions the authenticity of managerial motivations is also possible.

User participation is a process that needs to be managed and it is clear from the case study that end-users were not driving the process but were directed by management. The point here is that it implies a host of problems with talk of democratic or emancipatory involvement. User participation, because it brings together a broad range of actors with varying interests, potentially carries with it more latent conflicts than other forms of systems development. In any case, the whole process of systems development brings together a number of actors whose relationship is potentially antagonistic from the outset. The varying interests of the different actors enrolled into the systems development teams in part explain this antagonism. As Winograd (1996) notes:

In the course of designing for the workplace, a software designer inevitably faces situations in which design choices are constrained by the conflicting goals and values held by the different parties who have a stake in the changes that new technologies will bring to work. Workers and managers have many common interests, and they also have different stakes in how computers in the workplace change productivity, working conditions, and job satisfaction.

The case study is an illustration of institutionalised user participation that carries with it the hierarchical procedures one would associate with bureaucratised pro-
cesses. Far from suggesting the potential of emancipation, the case study shows user participation as potential instance of managerial control over users, highlighting the Machiavellian motives of managers who accept user participation for expediency. As was seen in the field study, participatory practices are an established part of company policy and are firmly embedded within the organisational culture. This culture is one that is typical of a large, public sector organisation with high levels of unionisation and a strong union presence. Faced with increasing market pressures, the organisation was embarking on a major reengineering programme that would fundamentally alter the organisational structure and processes. In an attempt to ensure commitment to this IT-enabled organisational change, users were enrolled in the process in two ways: firstly, by the provision of equity shares which gave them a financial investment in the ‘success’ of the organisation; and, secondly by enrolling them via participation in endorsement and legitimisation of the forthcoming changes.

As was noted, the majority of IT projects are management initiated. Having framed the boundaries for the project, management also determines the level of participation. For users that have been selected they are ‘expected’ to engage with the development process—with a veiled threat of retribution for resistance implied—and are simply seconded onto the project for the duration. In an attempt to ensure that the ‘right user’ is selected, any that could cause potential conflict are side-stepped. This process is not practised in an overt or explicit manner as management recognises the need to ‘play the political aspects’ and also ensure that the trade union has ‘bought into’ the change process. Once selected, the user representatives are often placed in a minority position, despite the provision of training. Such training is negligible when compared with that of an experienced systems developer and so the extent to which they can challenge such expert knowledge during the development process is questionable. Yet these same users are expected to provide business knowledge of the processes, test the prototyped system, sign off the installed system (thus assuming total responsibility at this stage), and ‘champion’ the project within their own functional division. We also suggest they will nevertheless find themselves constrained in their involvement because of inequalities already existing in the workplace.

User participation was essential for some projects, in order to help developers understand what are essentially highly complex requirements. Indeed, without user involvement, it is unlikely that developers could fully appreciate the details of some of the working practices. This enabled demystification of the problem domain, particularly with development that spanned several functions, thus allowing speedier completion of projects. This is of particular value given the relative weakness of the IT departmental position vis-à-vis other sections within the organisation and the low-level of human resources allocated to perform systems development. The process of participatory development also enables political conflicts to be aired/resolved before the installation and thus avoids possible system rejection following installation (which would be far more costly and problematic). Increased communication between developers and users enabled the former to use the ‘informal grapevine’ to highlight any impending industrial relations issues, thus allowing them to try and resolve these problems before the system is implemented. Any grievances could be aired in the preliminary stages before full-scale development was undertaken. As shown, the developers decided to halt a project when the situation was seen as being too politically explosive, which illustrates that the users and the unions do have some power to block projects.

**Conclusion**

Building on the tradition established by others (Franz and Robey, 1984; Markus, 1983; Robey and Markus, 1984) we have opted to ‘home in’ on the inherently political aspects of workplace relations as opposed to seeing politics as disruptive and therefore to be avoided. The case study, combined with the theoretical discussion beforehand, demonstrate the value of examining user participation in IS development with a critical eye. In particular, by considering the conflictual and unequal nature of
organisational relations, more of the complexity and richness of organisational life is made evident—not least as we have shown here, some crucial factors affecting the potential of user participation to deliver acceptable systems. This paper has attempted to open up a space in which to examine the unspoken conflicts and underlying tensions contained in the user participation process. By questioning the rationality that characterises systems development we have revealed aspects of the hidden antagonisms despite the use of participatory approaches.

This has a number of implications for research and practice. First, for information systems researchers, rather than develop new, improved participatory methodologies, they should re-focus their attentions towards developing a deeper understanding of the inherent conflict within the systems development process. Far from being an intellectual diversion, this constitutes a prerequisite for improving the rather poor record of systems development. Second, as noted elsewhere (Asaro, 2000), systems designers need to be aware of the potential applications of their work, even if they themselves have no ill intentions. For systems developers, the above applies, but also their training should encompass an appreciation of the essentially contestable nature of organisational relations (Knights and Murray, 1994). A broader view of structures beyond the control of the developer could identify factors relevant to the problem situation, yet normally considered to be beyond the parameters of a particular problem specification. Failure to arm practitioners with a more realistic assessment of the difficulties of systems development will undoubtedly increase the possibility of self-recrimination and ‘scapegoating’ by others when systems do not live up to expectations. Finally, for end-users in organisations, we would recommend they think carefully about engaging in the participation process in the first place, by considering the objectives of the system (which may be other than those stated by the project sponsors) and its potential consequences on their working environment and livelihoods. If they do decide to participate, we would also recommend that they apply to the trade union to organise an alternative assessment of the systems objectives and implications. But who could carry out such an alternative assessment? This last point brings us back to the implications for information systems researchers, who rather than accept the inherently managerialist agendas of successful systems development, have the option of changing allegiance by making their expertise available to its potential opponents.

References


