

**ABSTRACT:** The way systems are created shapes both the systems and the environment within which it operates. Participatory design contains a democratic core which can help rejuvenate both private and public sector organizations and implications for how we might revitalize our society's decision-making procedures and governing institutions.

**KEYWORDS:** Democracy; government, power, vision, public sector.

# POLITICAL IMPLICATIONS OF PARTICIPATORY DESIGN

by *Steven E. Miller*

Director, PARIS Information System  
Executive Office of Administration & Finance  
State of Massachusetts  
email: smiller@saffron.lcs.mit.edu

Participatory design is about involving users in the creation of computer systems--or any system--in order to make sure that the end product actually serves their needs. Participatory design requires a back-and-forth process of listening to the user, presenting a prototype for testing, revising it based on user comments, and trying again. It may also require up-front training of the eventual users so that they understand the range of possibilities and can be full participants in the process. Experience shows that, in many situations, this interactive, modular approach creates much better systems.

The concept is so popular these days that we've already got a Thesaurus-full of terms: iterative design, evolutionary development, modular development, interactive design, user-led prototyping, user-centered development, and user-driven design. There is a progression hidden in that sequence of terms, from involving users on a purely advisory basis to giving them more and more control over the entire development process. In fact, participatory design can be the starting point for very radical demands for work place, and even social, democracy. It is exactly this kind of extension of participatory design that this panel is about.

Conway's Law says that systems tend to resemble the organizations that build them.<sup>1</sup> I would add that systems help shape organizations and, furthermore, that the way we build those systems shapes both the system and the environment in which it operates. CPSR did not sponsor this conference merely to promote a new technique for the

development of better information systems. We are here because we believe that insights gained from participatory design efforts are relevant to restructuring the organizations we work in and the way our society is governed. We believe that participatory design concepts can significantly improve our decision-making institutions and revitalize our public sector; that at the core of participatory design are values and visions that are vital components of a progressive and humanistic social change agenda.

## WHY NOW?

The fundamental ideas of participatory design aren't new. Work has been going on in Scandinavia for several decades. And other antecedents of participatory design can be traced back to post-W.W.II Japan, or even to various radical working class movements in post-W.W.I Europe.<sup>2</sup> But why is there growing interest in this country, and why now?

The first part of the answer is simply that the old methods aren't working anymore. It is no secret that American business has discovered itself, like Los Angeles, to be standing on several fault lines. The forces shaking things up come from many directions, including changes in the

---

<sup>2</sup> Council-communism advocates, along with several other worker-control movements, have a long history of demanding bottom-up control of productive technology. These ideas were pushed forward by groups such as the British shop stewards' coalitions, particularly the Leeds group which produced a detailed plan for the conversion of their facilities to socially-useful production.

---

<sup>1</sup>Quoted in "Editorial: Technology or Management" by Peter J. Denning, *Communications of the ACM*, March, 1991

marketplace such as the impact of the personal computer on users expectations and the impact of international competition on corporate stability, the persistence of antiquated and inadequate procedures based on old "scientific management" concepts of division of labor and separation of brain from brawn, cultural changes emerging from the demands of the baby boom generation (that's us!) for more meaningful work and greater task autonomy, and shifts in the nation's political economy from corporate liberalism to conservative reaction.

## AN ALPHABET OF ALTERNATIVES

As these problems became increasingly severe over the past decades, most of the business community responded by digging themselves more deeply into the methods that had served them so well in the past. But not every one had their head in the sand. More insightful people in the business community and elsewhere have been calling for change for a long time. There has been a whole alphabet of proposals: MBO, ZBB, TQM, as well as calls for statistical measurements and processing integration. In addition, we've had manifestoes regarding the need to flatten hierarchies, create teams, set up skunk works, use matrix management, empower the front line, become customer or market driven, re-engineer old procedures, and lots more. Each of them starts from some important insights and provides some excellent suggestions for improvement.

In recent years, almost all of the proposed reforms involve some use of information technology. And some of them are so dependent upon the use of IT that they can be legitimately described as IT projects as much as anything else. Because of information technology, top executives are now overwhelmed with data--too much to deal with. Responsibility for interpreting and acting upon the data flood has to be pushed down the hierarchy. At the same time, improved communications allows top executives to keep on top of any development they wish; they can switch from preemptive micro managing to post-hoc micro monitoring. And the same systems provide the infrastructure for team coordination.

By now, a quick look at the business section of any bookstore shows that many business leaders have come to accept that there is a major problem, and they are searching for solutions. Some business leaders realize that the problem is so deeply built-in to their fundamental methods of thinking and acting that they need to explore previously unimaginable changes of a very radical nature. As one commentator recently stated:

the leaders of large businesses have turned against the models of bureaucracy that long served as corporate ideals...Instead, the new language of management increasingly celebrates involvement, creativity, individual autonomy, participation, even "empowering" employees to use their own initiative.<sup>3</sup>

So the second part of the answer to "why now?" is that participatory design is an extension of this new business approach into the field of systems development. However, in our enthusiasm for this new trend, it is important to remember that it is still a minority movement. Most workplaces still follow traditional scientific management precepts in which truth flows down from the sky gods in the Chairman's office. Executives are the wisest, the most all-knowing, and their visions are translated down through mid-level managers and engineers to the replaceable cogs on the assembly line or in the front office. Despite all the recent rhetoric of change, this militarized model of hierarchical power relationships still describes the vast majority of offices, factories, and other workplaces. As the chairperson of the Matsushita Electric Company has said about U.S. businesses,

...your failure is an internal disease. Your companies are based on Taylor's principles. Worse, your heads are Taylorized too. You firmly believe that sound management means executives on the one side and workers on the other, on the one side men [sic] who think and on the other side men [sic] who can only work.<sup>4</sup>

## THE DEMOCRATIC POTENTIAL OF PARTICIPATORY DESIGN

Most of this conference is about the various techniques and approaches people are using to elicit more effective user participation, so I don't need to review those alternatives. Instead, I want to discuss what participatory design might mean if we push it far enough to realize its full democratic potential in our workplaces and society.

---

<sup>3</sup>"Can Business Beat Bureaucracy?", by Charles Heckscher, *The American Prospect*, spring, 1992, p114

<sup>4</sup>Quoted in "Editorial: Technology or Management," by Peter J. Denning, *Communications of the ACM*, March, 1991

## INSIGHT SETTLES ON THE BOTTOM

Contrary to Taylorism, participatory design starts from the insight that the people on the front line--the ones who directly relate to customers, the ones who produce products, and even those whose work lives are spent performing internal procedures--are not only in an excellent position to know what works and what doesn't work in the current set up, but also what might be done to improve the situation.

This is a pretty radical statement. Some advocates of the "Reengineering school" proclaim that asking for new ideas from employees who are totally embedded in the old ways of doing things is a dangerous mistake; all you will get is marginal improvements, what they call "paving the cow paths." Instead, say these people, top executives should take the lead to "obliterate" the old rules and start over.

A radical vision of participatory design doesn't reject the need for dramatic change. It just says that everyone in the company can play an equally significant role in the entire process. In fact, "low level" employees may have uniquely valuable insights to offer, not only because of their more intimate knowledge of the effectiveness (or lack thereof) of current procedures and tools, but also because of their understanding of the social patterns of work. As many commentators note, the most intractable obstacles to change are cultural and organizational rather than technical.<sup>5</sup> But who is in a better position to understand an organization's true dynamics than those looking up through the hierarchy? We all know, from personal experience, that top-down evaluation systems provide little insight. But what vantage point is wider and more open than an organization's underside?

As feminist analysts have demonstrated, whenever an unequal relationship exists the less powerful group is forced to study the people above them and therefore know more about their superiors than the other way around.<sup>6</sup>

## INFORMAL WORK GROUPS AS SOURCES OF CREATIVITY AND COMMUNITY

Participatory design also recognizes that front-line workers are in a unique position because they are already the source of and institutional memory for much of an organization's creative energies. Very few organizations actually function according to their official procedural

rules. Situations change faster than rule books. In fact, one of the most effective weapons unions have is to "work to rule," doing everything exactly the way they're "supposed to." It never fails to bring a process to a screeching halt. This is true of both factory and offices. In one study, Lucy Suchman "concluded that formal office procedures have almost nothing to do with how people do their jobs."<sup>7</sup> It is the informal work group that discovers and passes on vital information about how to actually get things done. In fact, as Harry Braverman and others have shown, one of the main reasons for the original adoption of Taylorism by U.S. corporations was exactly to transfer the power and knowledge of craft-based work groups to management.<sup>8</sup>

Informal work groups are also important--especially for those of us concerned about the way in which work environments tend to dehumanize us and deny the full range of our personhood--because they are the vehicle for making workplaces livable, for providing the social content in the environment in which we spend the majority of our waking hours. A recent film on Public Television interviewed fast food workers. They compared the difference between old style "mom and pop" restaurants and the new, corporate work places. One of the main differences workers mentioned is that they no longer had a chance to talk to each other, to laugh together, to help each other with job and personal issues. There is much talk these days of "building work place communities." But communities imposed from the top are quite different and less empowering than those built from the bottom up.

## ENABLING LEADERSHIP

Democratic advocates do not ignore the need for leadership. But we call for a different kind of leadership, one that seeks to empower front-line initiative so as to maximize everyone's ability to contribute. We need leadership committed to clearly articulating a vision, creating a supportive infrastructure, providing seed resources for pilot projects, making skilled help available to those who need it, giving people time to experiment, offering oversight and supervision in the best social work sense of the term, and acknowledging success while forgiving failures. My father taught me that there are two kinds of leaders: the kind who, when its all over, people say, "He did it." And the kind who, when its all over,

---

<sup>5</sup>This was a central theme of Peters and Waterman's *In Search of Excellence*, among other books and articles.

<sup>6</sup>See *Toward A New Psychology of Women*, by Jean Baker Miller, 1976, pp. 3-12

---

<sup>7</sup>"Research That Reinvents the Corporation," by John Seely Brown, *Harvard Business Review*, Jan/Feb. 1991, p.108

<sup>8</sup>see *Labor and Monopoly Capital*, Harry Braverman, Monthly Review Press, 1974

people say, "We did it." And they feel proud and empowered by the process.

### AN EXAMPLE

Participatory design starts with a vision of how to build better information systems, perhaps even better business and operational systems. But, as it turns out, significantly changing the way we create systems often leads to changes in what we want those systems to do, as well as to changes in the organizations surrounding those systems.

For example, assume that a new situation has arisen; perhaps the market is changing or a new technology is emerging or merely that a new product is to be developed. An organization's leaders could disseminate information about the situation and outline several general possible approaches. Front line people would be given these materials--perhaps in printed form, perhaps as video-cassettes--as well as time to examine them and access to people who could answer questions and provide more detail. Participation in discussion groups would be voluntary, but all those who do choose to attend would be able to make comments and offer suggestions. These inputs would be collected and aggregated and then incorporated into a revised and more detailed series of alternatives, which would once again be sent out for review. The process would continue until the leadership felt that no new insight was being gained. Then, making their best choice among the alternatives, a policy would be selected. Once a plan was selected, everyone would be expected to follow the rules and contribute their best. People who refused would be subject to the regular disciplinary process.

In fact, why stop with problem solving? Why not take the participatory approach a step further and let an organization's basic mission and vision be shaped by the same process?

But whether the topic is production line problems or organizational goals, even without workers' control over the entire organization a truly participatory process will not only result in technically better decisions, it is likely that it will also result in more socially valuable decisions. For example, because a truly participatory decision-making process allows a broad range of concerns to be taken seriously, it is more likely to lead to systems that enhance the quality of work life rather than degrade it, that reduce pollution rather than increase it, that produce useful products rather than destructive ones.

I believe that such decisions are actually economically smart. Japan has made the energy efficiency of its products a major selling point. Germany is now requiring

that many large products sold in that country be completely recyclable, and they're making sure that their own companies have a head start in learning how to comply with this new standard.

### AVOIDING UTOPIAN ILLUSIONS

I acknowledge that this vision bears little resemblance what exists today in most workplaces. Many of today's labor-management experiments, from quality circles to union-management teams, are purely symbolic gestures. I remember a Fred Wright cartoon in the United Electrical Workers' newspaper showing a boss and a worker standing beneath a big poster proclaiming "Labor and Management: Partners In Prosperity." In one hand the boss is holding a newspaper whose headline reads "Greater Profits Available Overseas." With the other hand, the boss is giving the worker a layoff slip. The cartoon is labeled, "So Long, Partner."

Lest you dismiss this as a mere cartoon, remember that the Caterpillar company had invested heavily in a joint union-management team approach to quality improvement. But during its recent contract struggle the Caterpillar Company forced the workers to accept the company's terms by threatening to hire permanent scabs as replacements for the striking workers. "So long, Partner," indeed!

Elaine Barnard, former activist in the successful British Columbia branch of the Canadian New Democratic Party and now Director of Harvard's Trade Union Program, has said,

In our workplaces, unlike some other countries', we check many of our rights at the door when we go in. Things that we assume as citizens we have a right to--a voice, participation in the decision-making process, etc.--are not permitted in most workplaces.<sup>9</sup>

Furthermore, if the model of inclusionary decision-making sketched out a moment ago sounds familiar to some of you it may be because it is a pretty close description of the ideal form of democratic centralism as proclaimed by the early Bolsheviks. And we all know how democratic they turned out to be. As many people disgusted by the current state of the American political system will agree, it's easy to hide hierarchical realities behind participatory rhetoric.

---

<sup>9</sup>Quoted in *IMPACT!*, published by the Boston Computer Society's Social Impact Group and Public Service Committee, August, 1992, p.9

## COOPERATION VERSUS CO-OPTATION

A more subtle perversion of participation is its use as a method to divert attention from broad issues by only legitimizing discussion about each isolated team's specific area of expertise. Some union activists see this as a way to diffuse collective consciousness, to undercut bottom-up pressure, and as part of a larger strategy of co-optation. Writing in *Z* magazine, Peter Downs recently warned against the growth of what he called "corporate serfdom." He points out that the collapse of the public sector safety net and the declining salary levels of most U.S. workers makes people ever more dependent upon their employer for the health, pension, and other benefits that we all need. He warns that we are moving toward the Japanese model which gives a privileged strata of the population life-time security in exchange for giving their employer control over almost their entire waking life.<sup>10</sup>

## TECHNOLOGICAL BIAS AND POWER

Even if employers encourage participation with the best of intentions, there is another mile that will have to be walked in order to overcome the cultural assumptions already built in to our technology. Technology, we must remember, means more than tools, machines, materials, and energy sources. It also means the techniques, the procedures, and the social organization of how we do our work. Elaine Bernard, has written:

Many of the current designs of technology reflect an underlying prejudice against workers. They are designed with the assumption that workers are lazy, stupid, and incompetent. Many systems designers believe that workers will purposely destroy or undermine systems if they have too much control, and much effort in design is aimed at "worker proofing" or even "idiot proofing" technology. This is hardly a design prescription for social advancement or a technology for liberating humankind.<sup>11</sup>

## POWER IS THE KEY TO PARTICIPATION

In his article on the down-side of labor-management committees, SEIU organizer Kenneth Grossinger, says:

Proponents of labor-management committees argue that these committees facilitate communication between workers and managers...Moreover, it is assumed that when information which needs to be acted upon is exchanged, employers, once cognizant of the issues, will act.<sup>12</sup>

But as many of us have learned, ignorance on the part of decision-makers is often not the cause of the problem; explaining the social destructiveness of their policies is seldom the solution. Elite decision-makers usually know exactly what they're doing--they're protecting their interests to the best of their ability. For example, Ken Grossinger describes a series of situations where management ignored modest and reasonable suggestions to improve health and safety or provide better working conditions until the workers were able to exert pressure either through embarrassing public exposes, political clout, or shop-floor disruption. Grossinger sees the so-called "cooperation" movement as a strategy to continue the union busting started by the Reagan Administration.

The point underlying all these critiques is that participation is only meaningful if it is a coming together of equals. And that means groups of equal power, which is not yet the case in most workplaces. Because of that, Elaine Bernard says,

It is also important to promote unionism and security so that people feel that in offering their opinion they will not be penalized and so that we can get more honest dialogue.<sup>13</sup>

The point is that whether the topic is how to use a specific machine or the way our society functions, power is the bottom line.

## MAKING PARTICIPATION POSSIBLE

In reality, given the unequal power relationships in most businesses, while many work places are likely to see the introduction of some kind participatory rhetoric, it is very unlikely that most business leaders will undermine their power by carrying the process very far. This is just as true for participatory design of computer systems as it is for participatory involvement in business decisions. So long as it remains a purely work place phenomena,

---

<sup>10</sup>*Z*, "A Return To Corporate Serfdom" by Peter Downs, March '92, p.96

<sup>11</sup>"Technological Change and Skills Development," by Elaine Bernard, mimeographed paper, Harvard Trade Union Program, 1991

---

<sup>12</sup>"Labor Management Committees: Cooperation or Co-optation?" by Kenneth Grossinger, *Radical America*, Vol. 24, No. 1, 1/92, p.46

<sup>13</sup>Quoted in *IMPACT!*, published by the Boston Computer Society's Social Impact Group and Public Service Committee, August, 1992, p.9

participatory design is likely to get swallowed up by fiscal constraints of the post-Cold War economy or by the authoritarian imperatives of our society and turn into merely another fad, a set of initials to be put on the shelf along with ZBB, MBO, and the rest.

However, if participatory design can attach itself to and draw energy, legitimacy, and support from a larger movement, then it has a chance to survive and influence events. In Scandinavia, participatory design has survived because the nation's political climate is shaped by a large and powerful social-democratic union movement. In the U.S. unions are also an important potential ally, but they are too weak and defensive these days to provide the needed boost. Still, looking beyond the work place is the right approach. Just as the fight against racial and gender discrimination in employment developed in conjunction with the general civil rights and feminist movements; just as the effort to stop corporations from externalizing their costs by polluting the environment and skimping on workplace safety has only advanced in alliance with the environmental movement; so must those of us concerned with work place democracy and empowerment create strategies in conjunction with more broad-based progressive movements.

So it turns out that even people whose interest is confined to the spread of participatory design as a method for system development need to encourage the spread of participatory principles to the rest of society. Just as participatory concepts can contribute to a progressive and humanistic social agenda in our workplaces, the success of larger democratic movements in our society will significantly impact the spread of meaningful participatory design methodologies in the field of system development.

And the good news is that the same vision that we hope to instill in systems design and in the work places shaped by those systems is also relevant and already gaining support as a way forward for the public sector.

## **PUBLIC SECTOR APPLICATIONS**

It is no secret that this country's public sector is in deep crisis. Our voter turnout is already the lowest in the industrial world, and keeps getting worse. Our infrastructure is falling down, while our unemployment levels keep going up. Our health care is sickening. Our schools are failing. We can't impose our will on the new world order. The recent Ross Perot upsurge, along with many opinion polls, show a widespread disgust with the entire system. Regardless of your political orientation, this is a dangerous condition if we hope to preserve

people's faith in democracy and their willingness to fulfill the responsibilities of citizenship.

Furthermore, contrary to the Reagan slogan that "government is the problem," the public sector remains our only vehicle for coming to collective decisions about our society and implementing common solutions. The increasing ineffectiveness of the public sector in recent years is a key contributor to the decline of the quality of life in our society and the loss of faith in the values of citizenship.

It is not impossible to figure out what is wrong with the public sector. The forces that led to the decline of government services were the same ones that previously led to the decline of the private sector. In their new book, *Reinventing Government*, David Osborne and Ted Gaebler describe it this way:

100 years ago the word *bureaucracy* meant something positive. It connotated a rational, efficient method of organization--something to take the place of the arbitrary exercise of power by authoritarian regimes. Bureaucracy brought the same logic to government work that the assembly line brought to the factory....The kinds of governments that developed during the industrial era, with their sluggish, centralized bureaucracies, their preoccupation with rules and regulations, and their hierarchical chains of command, no longer work very well. They accomplished great things in their time, but somewhere along the line they got away from us. They became bloated, wasteful, ineffective. And when the world began to change, they failed to change with it.<sup>14</sup>

Just as the private sector led the way into centralization, so it has led the way out of it. It is no wonder that today's public, led to expect new standards of customer service and quality by companies such as Federal Express, LL Bean, and others, has a negative opinion of the public sector. And it is no wonder that the right wing call for privatization has suddenly found an audience. Ironically, at the same time that the former Communist world is struggling to recreate civil society, our nation has experienced a wholesale replacement of civil society with commercial relationships. From schools to safety, from housing to job training, public sector services have been allowed to become run down and undesirable while

---

<sup>14</sup>*Reinventing Government: How The Entrepreneurial Spirit is Transforming the Public Sector from Schoolhouse to Statehouse*, David Osborne and Ted Gaebler, Addison-Wesley Publishing, 1992, p.14, 11-12

private sector replacements have been encouraged for those who can afford it. Unfortunately, one result of this strategy has been a decline in the democratic content of our society.

### ALTERNATIVES ARE ALREADY AVAILABLE

The bureaucratic vision of the past century has run its course. Its goal was to create public institutions capable of handling the complex problems of industrial society. To a large extent, it succeeded. But the solutions of the past are often the problems of the present. Even most liberals now admit that we've got to make radical changes. Nonetheless, despite the efforts of some conservatives and libertarians to turn back the clock, most of us know that the answer is not a return to 19th century laissez faire. As Osborne and Gaebler state,

Most of our leaders take the old [bureaucratic] model as a given, and either advocate more of it (liberal Democrats), or less of it (Reagan Republicans), or less of one program but more of another (moderates of both parties). But our fundamental problem today is not too much government or too little government...Our fundamental problem is that we have *the wrong kind of government*.<sup>15</sup>

As the Ford Foundation/Kennedy School Innovations in State and Local Government Program has discovered, and as Osborne and Gaebler document, there already is an enormous amount of experimentation going on throughout the public sector. From small towns to the Defense Department, entrepreneurial public sector managers are finding new and radically better way to achieve their missions. But, as Osborne and Gaebler point out, these innovators are still operating on a pragmatic basis. To push ahead on a broader scale, to involve larger numbers of people and even more government organizations, we need to capture the essence of these efforts in "a new framework for understanding government, a new way of thinking about government, in short, a new paradigm."<sup>16</sup>

I suggest that participatory design can help provide that paradigm. Its core values are democratic. Its vision is inclusive and anti-hierarchical. And, if implemented in good faith, it is empowering, giving people the tools and authority they need to meet increased responsibilities.

Furthermore, the public sector already has a democratic tradition upon which participatory design can build. Thirty years ago, young organizers in the still dangerously

segregated sections of the South and in the not-yet discovered inner-cities of the North, worked for a vision that they described as "participatory democracy." The rural work of SNCC and the urban projects of SDS tried to build service organizations that treated people like owners rather than clients. And one of the most important themes of the War on Poverty was its attempt to insure "maximum feasible participation" of the people. It is now fashionable to disparage the War on Poverty, especially its efforts to empower poor people. But those efforts are part of the foundation on which today's public sector entrepreneurs are building.

### WHAT IS OUR ROLE

Just as IT managers can play a strategic role in the re-invention of business operations, so too can socially concerned technologists play a vital role in the rejuvenation of U.S. society. We have expertise in various information technologies. We know the transformational potential of those tools. And our experience with participatory design lets us contribute to the creation of a new vision for democracy that is partly based on the concrete opportunities that IT has made available.

Most of all, as Gary Chapman, Director of CPSR's 21st Century Project, has stated, we need to help people realize that computing and information technology does not merely mean word processing, but that it is central to the entire shape and direction of our economy, our government, our civil liberties, social services, culture, and the entire quality of life both here and abroad. We who work in the computer industry are in a unique position to understand those connections and explain them to others. It is our responsibility to help others learn. (And I am not ignorant of the fact that such an effort will be good for our collective employment opportunities as well.)

Despite this call for action, we must remember that we will only be effective if we act within the context of larger coalitions of working people and citizens seeking to create meaning in and gain power over their lives. And we must stay humble and modest about the ultimate contribution we can make to such a movement. We have even more to learn than we have to teach.

### WALKING THROUGH THE WINDOW

We are at a special stage of social development. The nation's dominant elites know that our economy and our society in general is in deep and escalating trouble. The situation is reaching crisis proportions. But as the current

---

<sup>15</sup>Osborne and Gaebler, p23

<sup>16</sup> Osborne and Gaebler, p. 321

presidential election shows, a consensus has not yet emerged among the nation's elites over what is the appropriate response.

These kinds of situations don't happen very often. The normal functioning of social institutions are designed to provide ways for elites to explore alternatives and reach consensus without risking the unpredictable involvement of large portions of the public. But when a true crisis emerges, the solution to which requires structural changes that may be painful to certain elite groups, the business as usual method of decision making gets stalemated--just as the federal government is today--and the debate then spills over to wider audiences. In such cases, it is possible for an unusually wide and potentially radical range of possibilities to be explored.

Of course, the interest in employee empowerment--which I see as the catalyst for the current growth of interest in participatory design--is more than offset by simultaneous demands for more tax cuts, more attacks on labor unions, and more free-trade openings for runaways. Still, the rise of "mainstream" interest in participatory design has

created a window of opportunity, a chance to talk with wider circles of people than we were previously able, to take the rhetoric of participation and push it to its democratic limits.

In a couple years the nation's corporate leaders will probably settle on a preferred strategy to the nation's economic problems. A secondary effect of that consensus will be to limit the allowable styles of user involvement in systems design. How much of a participatory approach will be allowed partly depends upon how successful we are in making participatory concepts a central theme of larger movements for national revitalization. This is a window of opportunity we can not afford to ignore either for reasons of ideological purity or of cynicism.

Our goal must be to institutionalize system building methodologies, to create organizations, and to shape our society in ways that serve the interests of the vast majority of people. We have a crucial role to play, and a unique historic opportunity to make our efforts count. We're lucky.