

Conventional STS, work redesign — obsolete. True self-management design is available now...

Participative design: effective, flexible and successful, now!

Fred Emery — Practitioner, researcher and theorist on democratic organizations

It's a pleasure to share my ideas with those who have an active commitment to seeing that organizations can be places where people experience dignity, caring and meaning in work while simultaneously achieving world class quality and performance.

Editor's note: Fred Emery is internationally known as one of the pioneers of self-management, and democratization workplace structures and processes. He has been involved in this research and applications of it since his tenure as a UNESCO Fellow at the Tavistock Institute in London in the early 1950s, when he and Eric Trist made the first detailed observation of self-managing groups at work in the coal mines of Wales. Since that time he has worked to make it easier for organizations to reap the benefits of self-managing social systems. In this article he shares from his 40 plus years of experience as to the most effective way to establish self managing structures and a vision for how to do this quickly and effectively in North America.

The original objective of our work in socio-technical systems (STS) was to achieve a shift in organizations from a bureaucratic structure to a democratic structure. The original process for redesign of organizations that my colleagues and I developed, and that which Lou Davis brought to the US in the mid-1970s, was not entirely adequate to accomplish this shift. My focus since then has been to simplify the process of redesigning organizations so anyone can understand it, use it, and re-use it. There is much that we have learned in the intervening years that could be helpful in your present circumstances.

Where and why STS went awry

As STS achieved a high profile in the 70s and 80s:

- Academics sought ways to scholasticize it...
- Consultants sought ways to sell it...
- And politicians in Australia saw its capacity to help generate high wage, high skill jobs and turned it into vote getting programs.

The scholasticization of STS —

Scholasticizing STS required that the subject matter be made so abstractly generalized, conceptually complicated and mathematicized that only the gifted few could grasp it. These were the qualities that had to be much enhanced if the subject was to be offered at the post-graduate level. This expert orientation drives it out of the hands of the workers where it can be put to best use.

Even apparently serious scholars have added to the confusion regarding the fundamental principles of organizational design. For examples in 1990, we have Womack and others on so called *lean production* and in 1991, Adler on *learning bureaucracies*. In both cases they are describing (very well) what happens when decisions about coordination and control are located with work-teams. But in both cases they sum up their observations as if they have seen the leopard of *Taylorism* change its spots. Unfortunately, many of their readers will have no clearer idea than those authors about what constitutes the essence of *Taylorism* and bureaucracy. Namely, that both systems insist that decisions about coordination and control of work be made at least one level above the people who do the work. **I**

A choice must be made... Maintaining a bureaucratic design will keep organizations spinning in circles and wondering why, after a sufficient period of time, their quality and performance aren't improving. Until executives understand the two fundamental choices of organizational design (bureaucratic or democratic) and their profoundly differing effects they will continue to select quick fixes that retain the bureaucratic design. For example, the fad of re-engineering — recycled Taylorism — now appears as a last ditch effort to preserve bureaucratically designed organizations.

The overselling of STS — Consultancy brings its own pressures on the development of STS. Consultants depend for their livelihood on client dependency; they usually have nothing to gain from increasing client independence. Naturally they will stretch out an organizational change process; seek to lower their costs by standardizing their services to meet multiple requirements, and seek to offer the latest fads that permit the highest markups of service prices.

Now that self-managed teams are fashionable, consultants offer STS:

- Team readiness surveys...
- Assessment instruments to select team members and leaders...
- Skills development...
- Team training broken down into its most trivial and redundant parts, ad nauseam...
- And training of in-house STS designers before they even consider the redesign of the actual job.

Expert driven designs: slow and cumbersome... Consultants like our old *expert driven* design. A new process which leaves an organization capable of continually adapting to marketplace changes would reduce fees, eliminate dependency and give consultants a far less prominent role. Meanwhile organizations are seeking the proven benefits of self-managing teams and are finding the whole expert driven process slow and cumbersome. Often their redesigns are obsolete before they are actually implemented. The current pace of change makes conventional STS both a tenuous and tedious process.

Overcoming real problems is our task —

The influences that I have mentioned are only environmental factors, so to speak. They may facilitate or hinder STS fulfilling its potential in the world of work but they do not define the problems inherent in STS (as presently practiced in the US) that may inhibit its own development.

Multi-skilling issues... With conventional STS multi-skilling is not a feasible option in management teams, R&D activities, and increasingly in automated plants. If a whole organization wanted to shift to a democratic design, we knew this would need to be resolved. The Norwegian field experiments taught us how to optimize a group around the social functions. Only then did we modify the technical function to allow that social form to optimally accomplish a mission.

The fundamental design choices...

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The bureaucratic design principle

Responsibility for control and coordination of work resides one level above where the work occurs.

The democratic design principle

Responsibility for control and coordination of work is located with the people doing the work.

Some years later, after we helped redesign the organization of research and development groups and management teams, we were able to create a simpler approach which we now call *participative design*.

Participative design: simpler, flexible, effective

Participative design (PD) is a redesign of the process of redesigning organizations and replaces conventional STS, while offering all of the promise that STS sought to but was unable to deliver. It is a coherent model for democratizing decision making even in groups where multi-skilling is not a feasible option. Now, we can employ a single design model to achieve systemic change throughout an entire organization.

The true critical design questions — This breakthrough was possible because we learned that the critical questions in the design of effective organizations were:

1. What decisions about control and coordination of work were necessary for effective group working?
2. To what extent can these decisions be located with the group doing the work?

These were the critical questions regardless of the technology employed, whether production was discrete, batch, or continuous, whether tasks were routine or non-routine, or whether the tasks were physical or mental.

I have not yet seen anything that goes beyond participative design or that demonstrates incompatibilities with it. In effect, participative design can be successfully employed to redesign any form of organization.

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Why participative design was developed — In the 1970s I sought to accelerate the traditional STS approach in Australia. We were concerned with several problems:

- The redesign process was long and complicated...
- We were unable to expand redesign efforts from their initial site to the whole organization...
- Successful projects often were not sustainable through time...
- Our expert driven process (design team, steering committee) generated resistance instead of commitment and energy for change.

We created participative design to overcome these constraints.

Design issues for North America — The constraints, noted above, are still your problems in North America. Although I played a significant role in the development and diffusion of conventional STS, I no longer use it, nor would I recommend your organizations spend their time and money on it. It is obsolete. I do not see any remaining serious scientific problems in the formation of self-managing workteams that will be productive and self-regulating.

Modified-conventional STS are non-starters as well... There are now some fast, more participative approaches becoming popular but they are still based on obsolete STS theory and will cause you to go down the wrong track.

Best use and future for American workers... Your society is at the stage where it is realizing that it must make a radical change from a traditional workforce based on a mass of relatively unskilled labor, deployed as readily replaceable parts in narrowly defined jobs (42 percent of the US workforce is employed in service jobs that are generally poorly paid, lead to nowhere, and provide few or no benefits), to a multi-skilled workforce deployed in self-managing teams. (In Australia such a change of heart was driven by politicians from both major parties.)

Resolve your management and control problems... In the United States you have not fully worked out how self-managing workgroups are to be managed. When you switch to participative design as your predominant method for redesigning organizations and implementing self-managed workteams that problem will disappear.

The new peer relationships, rather than hierarchical ones that result, will likely throw your MBA programs into crisis. Frankly, you could do without these elite factories for producing control and coordination one level above where the work is actually done. It hasn't hurt the Japanese to stay away from MBA schools. The simple truth is that organizations harnessing the mental power of all their employees outperform organizations that have brilliant leadership yet fail to harness the mental power of all their workers.

Resolving issues around the managers role and support systems... In the past (prior to the development of PD), as we introduced self-managing groups, support system matters were handled on an ad hoc basis to suit local conditions. Such arrangements kept getting whittled away as the support systems (procurement, personnel, finance, etc.) tried to get back their old ways and powers. This situation is resolved when the entire organization switches to a democratic form. We are at the point where we have the scientific and practical knowledge to release a great deal of productivity and creativity at the workplace but we continue with managerial practices that misuse that potential. Rethinking the role of management will also involve redesign of the support systems for the self-managing workgroups and their connection with each other, and with customers and outside suppliers.

North America's greatest organizational design challenge — I regret to inform you that the dominant trend now, in your country, is to pretend that you can have a self-managing group with a supervisor who is re-labeled as a trainer, leader, or coach when in truth responsibility hasn't really been shifted to the team. That leads to a crisis of responsibility and a breakdown of the effectiveness and implementation of self-managing groups. The reason for the difficulty is simple: the *trainer, leader or coach* is still at a higher level of the hierarchy.

Straddling two horses has always been risky and foolish... Instead of shifting right into a new democratic or self-managing organization your methods assume the necessity of a state of transition in which a supervisor needs to be there. The facts are that by using participative design a group can immediately determine what it's level of self-management ought to be.

I repeat, transitions are unnecessary, all that expensive training, as recommended in books like *Empowered Teams*, to make up for poor design is unnecessary and all that pain, confusion and lack of success are certainly unnecessary.

Looking ahead

After 40 years of experimentation and innovation I think it is fair to say that we now know how to achieve productive participation of the workforce at the enterprise level. Participative design, as we have worked it out, is straightforward enough to allow a rapid change to democratic organizations.

Your leaders simply have to think again about control and authority. The age of kings, queens and byzantine bureaucracy is dead; democracy, universal education and cooperation have won. Once that is accepted, the paradoxical challenge to your executives is that they have to decide to build a new way of working together, determine its overall goals and dimensions, and then let the people within the system design how the parts of the puzzle will actually fit one to another.

TQM, participation, learning and systems thinking — There is some indication that the needed shift in thinking may be occurring:

- The total quality movement can not thrive in bureaucratically designed organizations and is close to discovering the importance of democratic organization.
- Popular books like Senge's, *The Fifth Discipline...*, introduce whole system concepts and popularize *learning organizations* but offer no clear process for creating organizations where this behavior naturally occurs.

- Books on leadership and organization that draw from whole system metaphors found in ecosystems, quantum mechanics, cybernetics, cognitive science, chaos theory and such are now popular, as they should be.

The impact of participative design on the larger social system — Over the past forty years, STS theory has evolved by giving partial solutions that created new problems, and then proceeded to solve those. Where once we were concerned with posing a theoretical challenge to Frederick Taylor's concept of the *scientific management of work* we are now confronted with the real world problem of managing multi-skilled workforces organized as self-management work-teams.

Changing the social context of work will produce, as you might expect, demands on other systems within society. Educational systems must be geared to supplying and sustaining such a workforce. Institutional structures and legislation obviously may have to be radically changed to serve industrial relations that are increasingly cooperative and interdependent.

People in your culture don't know it yet, but the democratic organization delivers what you seek. If this occurs then your future will be very bright.

Participative design has the potential to help change the world of work in the enterprises, education systems and bureaucratic government agencies in North America. You are at the very beginning of your exploration into its efficacy. I wish you well. ♦



Fred Emery is internationally known as one of the pioneers of self-management, and democratization workplace processes. He is now a professor emeritus from the Australian National University. His work presently consists of mentoring participative design practitioners and continuing his research and reflection on how to create workplaces that support dignity, caring and meaning in work.

Editor's note: For an in-depth description of the participative design process, please read the following article by Steve Cabana.