In Chapter 7 we saw that, if we are to have an effective educational system, the role played by public servants, including teachers and administrators, will have to change dramatically. They need to undertake a range of thus far unfamiliar activities, exercise a variety of new high-level competencies, and have their performance evaluated against such criteria as their ability to make good discretionary judgments and initiate forward-looking action in the public interest.

More specifically, we saw that, in order to solve the problems which arise from the value-laden nature of competence, it will be necessary to (a) develop, experiment with, provide, and evaluate, a much greater variety of different types of educational program; (b) collect and disseminate - directly to the public - both (i) information on the personal and social consequences of each of the options and (ii) evidence that each is of high quality; and (c) evolve ways whereby the public can much more easily influence the nature and quality of provision.

In Chapter 8 we concluded that some of these changes could be achieved by introducing a staff appraisal system to recognise and reward the exercise of high-level competencies by teachers and administrators.

In this chapter it will be argued that others could be achieved by evolving forms of "participative democracy" which would enable the public to play a more direct role in the management of society.

The part played by the public service in the management of modern society is too great and diverse to be adequately monitored by small groups of elected representatives. The material reviewed in this book provides conspicuous evidence of the inability of centralized government and traditional forms of bureaucracy to manage even one area of public provision effectively. Similar evidence could have been produced for many other domains: health care, agriculture, defence, the environment, the biosphere, and the economy itself. Changes are needed in the processes employed to arrive at information-based decisions and the steps subsequently taken to manage, monitor, and improve the developments that are introduced.

The remainder of this chapter will discuss the possible nature of these arrangements.

*Network-based Supervisory Structures*
A more transparent, "decentralized", bureaucratic and representative structure is required to: (a) hold public servants accountable for such things as making good discretionary judgments concerning activities which are likely to be in the long term public interest; (b) ensure that key information is collected and fed outward to the public (instead of upward through a bureaucratic hierarchy); (c) ensure that action is taken on the results, and (d) ensure that feedback concerning the adequacy of the variety provided and the general direction of activity is obtained and used.

Such a structure might be provided by the fluid networks of monitoring groups discussed in more detail by Toffler, Schon, Ferguson, and Raven, and, in some senses, actually operationalized by Howard.

In the case of education, we might envisage a structure involving groups of people monitoring the work of individual teachers in their classrooms, groups monitoring the work of schools, clusters of schools, provision in an area, national and international policy, groups examining the work of local and national administrators and administration systems, and groups monitoring the interface between the educational system and society.

The necessity for a network of groups can be illustrated by taking an example. Teachers need to assume more responsibility for the innovative action they take as individuals. But to take effective action as individuals they need to take account of the activities of teachers in the same and other schools and national and international developments. They need assistance in dealing with problems, in clarifying and initiating the coordinated action required to tackle the educational and social problems lying behind everyday difficulties in the classroom, and in making contact with other people trying to tackle related problems. It follows that, since all of these considerations need to be taken into account when evaluating the work of an individual teacher, all this information must, in some sense, be known to the monitoring network.

The groups in a network should have changing, diverse, and overlapping, memberships. They might involve parents, other citizens, a range of staff, researchers, members of other communities, members of central planning organizations, and the media. Overlapping membership encourages the flow of information between different people and different levels in the system.

Howard has already instigated activity of this kind. His groups, made up of parents, teachers, pupils, administrators and researchers, were set up to monitor and review the work of schools and individual teachers over an extended period of time. The groups were supplied with information collected using professionally-developed questionnaires designed to review educational goals and the barriers to their achievement, and to document activities in individual classrooms. Repeated assessment showed whether the classroom climates had changed as a result of suggested interventions and whether the wider goals of education were being achieved more effectively. The process led to more effective schooling, and to an improvement in the understanding of educational issues on everyone's part.

A great deal remains to be done to determine how such groups should be composed, how their memberships should be decided, how much weight should be
attached to different peoples' opinions, how their work should be monitored, and what procedures should be introduced to ensure that they disband when they have outlived their usefulness. However, the solutions to these problems can only be determined through monitored experimentation.

It is important that the direct contact between members of such groups be supplemented by effective media coverage of the issues. Those involved need to know what is emerging from research. Computer-based networks are also required to allow contact between like-minded individuals in other parts of the world.

The participants in the groups must be able to initiate the process of information-collection and contribute to the definition of problems to be investigated and tackled. We might envisage a media-based debate, with a guaranteed right to contribute and be heard, and assurance that assistance will be available to help people collect the data needed to substantiate their viewpoints. The debate must be linked to voting procedures, but the votes which are to count on any particular issue will in many cases need to be in some way limited to those with an interest in that topic. However, the votes themselves should not bind policy making groups. Democracy is more about catering for variety, and allowing consensus to emerge, than establishing majority decisions binding on all. The pattern of votes should be looked upon as one source of information among many to be taken into account by public servants in the decision-making process - and, as we have seen, those public servants should themselves be held accountable to a similar network of monitoring groups for the quality of their discretionary judgment as to what is in the long term public interest as a whole and the groups of which it is composed.

Researchers have a responsibility to generate the information needed to assess the effectiveness of provision, identify the barriers preventing the achievement of educational goals, clarify the curriculum processes required to reach those goals, study the effectiveness of present administrative arrangements and develop better ones, and develop any tools required for these purposes. Encouraging researchers to participate in the network management structure is one way of helping to ensure that more relevant information is collected for the purpose of formal evaluation. Their involvement is also desirable in that it brings into the decision-making process people who, because of their contact with ideas, the public, the problems, and potential methods of tackling them, are more likely than others to envisage radically new formulations of objectives, problems, and lines of development.

Innovative ideas tend to emerge from networks of individuals who are in touch with each other but somewhat isolated in their own communities. The members of these groups are distinguished by their inclination to innovate, an interest in ideas, and a feel for the process of innovation - for experimentation and continuous revision. They also tend to have the time and financial resources required to do new things. They have scope to "take risks" in the knowledge that an error would not be too damaging. Ideas of this kind tend to derive less from managers, who have little contact with the problems themselves or with others working on related problems. Once ideas have been tested and made useful through pilot experiments, they tend to be disseminated through the kind of "cascade" system described in the last chapter rather than through the media. People tend to adopt new practices after having seen them working effectively for others in similar conditions. Laggards are brought along
by financial and other constraints. Invention is the mother of necessity, not vice versa.

The main influence of this network-based supervisory structure would not derive from its power to hire and fire individual members of staff. Rather, it would stem from its capacity to provide teachers and bureaucrats with a wealth of positive ideas on how to improve their performance, and allow them access those best able to help them do whatever is necessary. It would help public servants to tap their clients' often considerable, if generally neglected, expertise on the issues. However, perhaps the two most important benefits of the process would be (1) the exposure of public servants' activities to the public gaze - a strong incentive for people to act in the public interest, and (2) its ability to provide the public with the information they need to take informed decisions about their own lives and those of their children.

Changes in the Role of Elected Representatives

If such a network of monitoring groups were introduced, responsibility for monitoring the work of the public service would be devolved from central government, but in a very different way to that envisaged in the currently fashionable notion of devolution to assemblies of locally elected representatives. This procedure results in channelling so many decisions through such small numbers of people that those concerned cannot possibly be well-informed about more than a fraction of them. A network-based structure implies a participative, as distinct from representative, democracy. The effective operation of such a structure would depend on everyone's faith in the competence of their fellow citizens to make sensible decisions about issues affecting themselves. It is worth noting, however, that such faith would be more justified than faith in representatives elected to multi-purpose assemblies.

The role of the public service will become more, not less, important in any new scheme of things. To it will fall the task of initiating and carrying out the research and evaluation activities required to monitor the effectiveness of public provision. To it will fall the task of clarifying the range of educational programs required, and of disseminating information about the personal and social, short and long-term, consequences of each. Given the crucial importance of all this information, new mechanisms are required, not only to supervise the public service, but also to influence the nature of the information collected, its presentation and discussion, and the considerations taken into account when decisions are made. It should not be concluded from this discussion that there is no role for representative decision-taking bodies. Such bodies must bring into being the international structures needed to manage the global economic arrangements (on which the educational system is so dependent) in the public interest. To such bodies will fall the task of promoting public debate and monitoring the workings of institutional arrangements, including both "parallel organization" activity and the network-based monitoring structures discussed here. It will also be part of their role to make collective decisions, dismissing ideas which benefit individuals rather than society generally.

Attention does, however, need to be paid to the way in which members of representative assemblies are chosen. Emery has shown that it would be better to
do this by sortition - random selection from the group concerned - than by election. Elected representatives tend to have very different concerns, interests, and priorities from the electorate they claim to represent.

It is frequently claimed that a serious difficulty with the above scenario is that "there must be an authority to dismiss incompetent workers". It is felt insufficient to expose the work of incompetent people to the public gaze, and to institute better staff guidance, placement, and development procedures. This claim has a somewhat hollow ring given the evidence that our current hierarchical supervisory structures are typically unable to do anything when faced with incompetent teachers, doctors, and public servants - or even extremely destructive elected politicians. In fact, as Day and Klein\textsuperscript{9,14} have observed, public service professionals are generally able to evade any form of accountability by arguing that the issues involved are so complex that they can only be understood by fellow professionals. Such views are seriously challenged by the data presented in this book and by public opinion. But the favoured remedies for education - centralized prescription of curriculum and testing, tough staff appraisal, and devolution of "control" to schools - have been discounted earlier in this book.

It is also claimed that the arrangements envisaged in this and the previous chapter are unrealistic. Critics cite the "top-heaviness" of the proposed system of management, and claim that the public would be loath to devote the necessary time to participation in societal management - however socially beneficial that might actually be - if it would reduce the time available for acquisition of personal wealth.

However, personal wealth will be of little use in a world overwhelmed by the collective effect of ecological and economic catastrophe, and in any case, participation in the management of activities contributing to the quality of life is, in itself, a wealth-creating activity meriting remuneration.

The way forward will involve wider recognition that most wealth in modern society resides in the public domain. The supervision of such things as community support, urban reconstruction, agricultural policy, crime prevention, the management of the economy, and environmental protection, is a wealth-creating activity which people should not be expected to undertake without reward.

Much of the discussion in this chapter has been speculative and short of concrete examples. It has been based on research into the nature of competence and the barriers to effective education. It might, perhaps, be possible to reinforce the conclusions we have drawn by undertaking comparative study of the workings of different local government structures, and of the management structures in different countries such as Japan, Germany, Norway and the UK. Once again, therefore, we see that the attempt to solve an applied problem leads directly to a major agenda for fundamental research - for the problem is not to apply existing concepts to the analysis of different societies but to engage in that kind of research which will surface embedded assumptions and incipient movements toward new ways of doing things. Many of these are not articulated by the members of the societies concerned and have to be surfaced through programs of comparative interviewing which are explicitly set up on the understanding that the researcher does not know what
questions to ask and is indeed struggling to become clearer about what those questions might be.

Summary

We began this chapter by identifying one of the major problems of modern society as the need to find ways of getting public servants to seek out and act on information in an innovatory way in the public interest. Current bureaucratic and representative structures have proved inadequate to this task. We concluded that exposing the activities of public servants to the public gaze would encourage them to act in a more innovative and responsible fashion. To do this it would be necessary to introduce network-based structures which would better enable the public to oversee the work of its servants. The role of the public service itself needs to focus more on the promotion of innovation.

In the realm of education, public servants need to generate a range of alternative programs between which the public can be invited to choose, to collect information on the personal and social consequences of each, and to feed that information outward to the public rather than upward through a bureaucratic hierarchy to elected representatives who supposedly make decisions about the programs that are best for everybody.

These changes in our forms of democracy and bureaucracy would complement the changes in the internal functioning of the educational system which were suggested in the last chapter.

Yet, although there is indeed an urgent need for change in the nature of democracy, we do not have to wait for centrally decreed change before any progress can be made. Networks of monitoring groups can be established through local initiatives. The work of Burgess and Adams in the UK, and Howard in the US, indicates the possibility of introducing aspects of an innovative climate which are followed, rather than preceded, by changes in management procedures. The adoption of such procedures leads to an improved flow of information between different levels in a bureaucracy, to the establishment of support networks, to the recognition and reward of attempts to seek out and act on information in an innovative way in the public interest, and to the creation of networks to monitor and support the work of individuals.

Notes

9.1. See Janicke (1990) and Day and Klein (1987) for a wider demonstration of the failure of the political system to orchestrate communal action in the common good, and, in particular, of its inability to influence the TNCs. The reasons why market mechanisms could not be used to tackle the problems of the educational system are discussed in Raven (1989). The role of the market in producing rather than ameliorating these problems is discussed in Raven (1988) and will be discussed more fully in Raven (1991). See also Ekins (1986) and Robertson (1985).
9.3. Schon (1972/73)
9.5. Raven (1989, 1992)
9.8. But see Raven (1982) for the problems in evaluation of pilot programs and for a discussion of the stresses which participation in such experimentation cause.
9.9. Rogers (1962, 1983); Roberts (1968, 1969); Schon (1972/73)
9.10. Rogers (1962/1983); but see Raven (1985) for a discussion of the misunderstandings of these terms in education.
9.11. What this indicates is a need to have a range of units studying and publicly debating "the same" topics and the need to have a range of personnel in education and the public service: to have some ideas men, some publicists, and some who work in the spaces between departments.
9.12. It is worth noting that determination of the public interest is primarily a research based activity because it involves studying the long term personal and social consequences of different alternatives and the interactions between the effects of actions taken in different areas. However, the next stage will normally involve generating a range of options with demonstrably different consequences and making those options, together with information on their short and long term consequences, available to the public so that the fact can emerge that there is not one public interest but a range of interests.