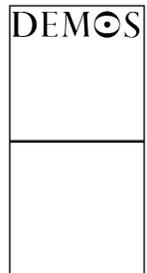# Seeing the connectedness of things is the starting point for understanding a world that otherwise appears baffling . . .

## Connexity revisited

Geoff Mulgan

DEM☺S

# DEM⊙S

**Open access. Some rights reserved.**

# 4. Connexity revisited

## Geoff Mulgan

*Connexity* was published in 1997 in the UK – and has subsequently been published (and translated) in various parts of the world, from the US and Greece to China.[1] The book made three arguments.

First, that the growing connectedness of the world is the most important social and economic fact of our times. It is manifest in the growth of physical links like telecom networks; in rising flows of goods, money, ideas and people; in the interconnectedness of culture and the environment; and in new forms of social organisation. Hence the reuse of an old English word, connexity.

Second, that this connectedness renders redundant many of the dominant concepts of political, social and economic thought that assumed a world of sovereign and separate entities: nation states, companies and individual citizens. The key intellectual methods needed to understand the contemporary world, by contrast, focus on the character of systems, connections and feedback loops, and on subjects of action who are not seen as complete and bounded in the manner of nineteenth-century liberalism or twentieth-century economics.

Third, that this connectedness poses major moral challenges, above all concerning our responsibilities to others. For example, how should we rethink our consumption patterns in the light of climate change? How should we and our governments respond to genocide and failing states in distant countries? I argued that these issues were set to rise

up the political agenda and would require radical changes to our institutions.

Since I wrote the book all of these trends have intensified. The world has continued becoming more connected; the boundaries between international and domestic policy have blurred irrevocably; and the gap between the scale and nature of the problems and the capacities of institutions to deal with them has grown. Within business, governments and civil society the importance of networks in helping with coordination, learning and the creation of value has become more commonplace.

## Networks, hierarchies and control

*Connexity* built on the more theoretical account set out in an earlier book, *Communication and Control*.[2] This argued that the information revolution was best understood as an increase in capacities to control, and that these would be exploited both by new horizontal networks and by traditional hierarchies.

The empowerment of networks is becoming widely understood in everything from knowledge management to protest. Oddly, it is the empowerment of hierarchies that is now less well recognised.

For many the promise of the information revolution was that power would be distributed evenly. The network would displace the hierarchy, as in Tom Paine's marvellous description of democracy shattering the crown of royal dominion and giving each citizen a jewelled piece. A networked world would empower citizens against states, consumers against companies, the weak against the strong.

Networks can, indeed, be genuinely empowering. But some of the characteristics of knowledge – its zero marginal cost, replicability and fungibility – and some of the characteristics of networks – their reach, and exponentially rising value – have led to greater not lesser concentrations of power and have reinforced some hierarchies. The key characteristic of hierarchies is concentration: concentration of resources at the points where it can make most impact, and concentration of control over resources that others need: money, knowledge, votes, even processing power.

We still live in a world of powerful hierarchies. Governments take a larger not smaller share of GDP than they did 10 or 20 years ago. The military depend on tighter command systems than ever before to avoid mistakes, since the response of a warship to air attack now has global ramifications. Power in the global media, and power over the 'memes' that shape minds, is more concentrated than ever despite the proliferation of magazines and websites. For all the talk of the network economy most businesses are organised as fairly tight hierarchies, albeit with fewer layers, and some that used not to be, like partnerships, are taking more traditional corporate forms. Again, one of the drivers of this is globalisation, since what a subsidiary does in a distant country – using child labour, say – may have an impact on consumers here. The same is true in NGOs. Look closely at Greenpeace, for example, and you see a fairly tightly controlled hierarchy, not loose democracies. Within and around all of these are networks: networks for managing relationships, knowledge and information. But at their heart lie hierarchical organisations of power and authority able to act decisively and quickly, with concentrations of resources and with some of the properties of Bentham's panopticon, able to see everything from the centre in real time.

So although networks have become much more important to the way we live, we do not live in a world dominated by networks. Networks are extraordinary ways of organising knowledge, cooperation and exchange. They are far more effective means of sharing learning than hierarchies and generally better at adapting to change. But they remain poor at mobilising resources, sustaining themselves through hard times, generating surpluses, organising commitments, or playing games of power. This is why, for example, the interesting feature of the anti-globalisation movement is its weakness not its strength, and why Al-Qaeda can inflict huge damage but cannot create.

## Risk and the state

The continuing importance of hierarchy in a networked world partly reflects the nature of risk. States have their origins as protections

against risk: protection from invasion and attack, then in the nineteenth century from disease, and later still protection from poverty and unemployment. Much of what we count as progress in urbanised societies has been the increasing success of many states in protecting their citizens – from war, disease and poverty.

Some expected a networked world based on information to reverse this, or at least to offer a different way of handling risk. It is certainly harder for states to build certain kinds of walls or control what information and knowledge reaches their citizens (though the Taliban tried). The other widespread prediction was that a more networked world would inevitably encourage greater individualisation of risk, which might leave each person, or at least everyone with the means to do so, with their own insurance, purchased on global markets, calibrated using sophisticated algorithms, particularly with new genetic knowledge. People would buy their own security, education, or healthcare, as the state, and pooled risk, withered away.

The reality is very different. We remain in a world where many risks are collective and where the public rationally looks to public institutions to protect them. These include the risks of instability in the global market, the risks of attacks on systems on which we depend (from food distribution to electricity), risks to personal privacy or global warming (in each of which states can be as much the problem as the solution). Paradoxically the very speed with which networks have advanced has reinforced the need for stronger legitimate authorities to protect people from the risks they have brought in their wake.

The nature of risk also underscores the importance of moral obligations to others. September 11 was a reminder that even the richest and most powerful remain vulnerable. Thomas Hobbes's words from over 300 years ago have special resonance now. In *Leviathan* he wrote that 'the weakest has strength enough to kill the strongest, either by secret machination or by confederacy with others …', which is why the strongest need to care about the lives and needs of the weakest.

## The implications of connexity

What follows for governments, whether of cities or states? In *Connexity* I set out some of the emerging principles for government – from the relationship with citizens and the role of trust to the use of more horizontal structures in bureaucracies. Five aspects stand out.

### Transparency

The first is the potential for radically greater transparency because of the ease and cheapness of sharing information. On the Web I can look up my street on a site called upmystreet.com. Through it I can instantly find out information not just about local contacts or discussion groups but also about the relative performance of my local schools or local police force. I can do this because government has been through a revolution in how information is organised. Much that used to be internal, the prerogative of management, is now external. Information has been turned inside out, rather like a Richard Rogers building.

This shift was bitterly resisted by the professions and many of the experts in each field, who feared that the information was crude and that the public wouldn't be able to make sense of it. Yet having happened it is irreversible, and has turned out to be a powerful force for changing cultures of provision, driving up performance and encouraging weak performers to learn from their more successful counterparts.

Transparency has also changed the working practices of govern-ment. A good example is food, where public trust in government collapsed in the UK in the 1990s because of BSE. Now the Food Standards Agency makes all its decisions in public, publishes all the scientific and other data underpinning those decisions, and has quickly shown that a more open, adult approach increases public trust. My guess is that future governments will simply take that sort of greater transparency for granted, as an unavoidable aspect of the environment in which they have to work.

## Holism

The second principle is holism: the potential for governments to see how things connect. Systems thinking, and the possibilities of networks, are together pushing towards what we call holistic, joined-up government – reversing the logic of nineteenth-century functionalism, and the logic of the new public management which divided every task into component parts, separate functions or markets. Instead, smart networks make it possible to organise the forms of government in very different ways, starting with needs, outcomes, or client groups and then working backwards to fit functions to them.

In welfare and justice, for example, the case management approach has been widely adopted, so that if a 16 year old gets into trouble the different agencies – police, social services and voluntary organisations – are brought together by a single person to fit the young person's individual needs. On the Web, government services have been clustered by life experience – such as having a baby or retiring. At a national level some budgets have been moved away from departments to cross-cutting structures – like Surestart for under-3s or the fund for conflict prevention in sub-Saharan Africa, so that the money follows the problem rather than being the preserve of departments, agencies and professions. Old-fashioned vertical hierarchies still have their place. But over time the likelihood is that horizontal, networked structures will increasingly displace them.

## Directness

The third principle is directness. In the past governments had to operate through many layers of mediation, tiers and hierarchical bureaucracies. Now more direct relationships are feasible. Take health. A big advance in the UK has been NHS Direct, a 24/7 phone and online service of advice and diagnosis, which is in part about empowering individuals to take more command of their own health. If my daughter is sick at 3am I can speak to a nurse or look up guidance. The idea is not all that radical in itself. But it brings together old elements (phones and nurses) in a new way, just as

printing, for example, was not a new invention but rather a combination of raised letters from coins, the wine press and etching.

Directness applies in other fields too. Learndirect and the National Grid for Learning now provide a full range of courses accessible online, with back-up from tutors both phone-based and face to face. Such approaches have the potential over time to transform education into a much more user-driven system. In the field of democracy there has been constant experimentation to increase direct engagement. In the UK one-fifth of local councils have used citizens' juries. There have been more referendums in the last seven years than in the last 70. Power has been devolved to Scotland, Wales and Northern Ireland, which now have their own very self-contained political lives. Postal voting has doubled turnouts in some areas and very local polls for neighbourhood committees with control over large budgets have achieved high turnouts.

These changes in method do not solve the underlying problems of democracy. As ever, the scarce resource is time and with it understanding. But they are steps towards more direct engagement by the public in the decisions made on their behalf.

### Multiple levels

The fourth principle is the potential to see every issue, every task through many frames from the neighbourhood to the global. Governance now takes place at multiple levels – local, regional, national, European, global – between which there are few clear boundaries. Local phenomena, like asylum or drugs, or the pressures on the education system, cannot be understood or addressed in isolation from global events. Policy increasingly straddles old divides. The ugly word 'intermestic' describes how issues like energy security, cybercrime or migration cut across older definitions of foreign affairs.

At the same time one of the great achievements of the information society has been the rapid emergence of something akin to a global demos. Global public opinion has made itself felt around Kyoto, Afghanistan, debt cancellation and Africa. It makes its strength felt in

the actions to tackle conflict, in humanitarian responses to disaster, in the outlawing of genocide, and in the way that some of the 'memes' of democracy, social justice and human rights have spread faster than trade or foreign direct investment in the last decade.

Yet the global demos poses acute problems. No one has designed even in theory a way for people to sense sovereignty in exercising power along with 6 billion others. Some bodies operate on the principle of one nation one vote, some one dollar one vote, and some are effectively weighted by military power – while oddly no international institution works on the principle of one citizen one vote. In a world of imbalanced power this may be inevitable, but it is in tension with the promise of distributed control.

I doubt that we will see the emergence of nation-state type forms at the global level: parliaments, armies, currencies. More likely is a much more complex system of parallel agencies, variable geometry alliances and difficult models of accountability, in all of which the informal aspects are as important as the formal ones. A good example of this is the online network of legislatures being promoted by Earth Action, bringing together 25,000 legislators representing 60 per cent of the world's population with the potential to organise discussion groups over everything from stem cell regulation to terrorism. This will have no formal power but potentially could have a great deal of influence.

### Leanness

The fifth principle is leanness. The first wave of productivity gains from information technology were exploited in manufacturing. Only belatedly did private services experience major gains. Now public sectors stand to gain even more than the private sector because so much of what they do involves the collection, processing and dissemination of information and knowledge; these lie at the very heart of government. Yet the realisation of these gains depends on radical reform of processes, structures and rules.

## Conclusion

Seeing the connectedness of things is the starting point for understanding a world that otherwise appears baffling. Economics, environment and security do not exist in neatly demarcated boxes. Nor do nations, companies or even families. Yet it is far easier to assume a world without connections, a world of fewer dimensions where simpler heuristics carry us through. This is perhaps the hardest aspect of a connected world and the reason why our concepts and institutions may be doomed to lag behind the reality they seek to make sense of.

*Geoff Mulgan is Head of Policy in the Office of Prime Minister Tony Blair, but writes here in a personal capacity.*

## Notes

1   G Mulgan, *Connexity: responsibility, freedom, business and power in the new century* (London: Vintage, 1998).
2   G Mulgan, *Communication and Control: networks and the new economies of communication* (Cambridge: Polity Press, 1991).