

9. Embracing digital change and enhancing organizational learning

Improving productivity in government services is like dieting. (Almost) all of us agree that it would be a good thing to do. But there are a baffling range of theoretically (yet vaguely) plausible suggestions for changes, none of which are proven to work and few of which are as easy to implement as their proponents proclaim (McKinsey, 2011a). In the short term dramatic results can sometimes be achieved, but often in temporary ways that cannot be maintained so that performance quickly slips back into the old mould. Making an approach work for long enough to achieve worthwhile results is far harder than it looks. And shifting government organizations onto a new and sustainable pathway of continuous productivity improvements is the hardest task of all.

Yet there are also many factors that work in favour of improvement, of which we review two of the most fundamental in this chapter – digital changes and the push for organizational learning. First, we begin by clarifying the strong modern links between productivity and ‘digital era governance’, especially the factors involved in countering a prevalent bureaucratic conservatism about adopting or using new technologies. The challenge of rapid and disruptive changes towards using digital technologies has most dramatically worked out in the IT, media and cultural industries in the period since 1995, with radical consequences for once giant companies (like Kodak) and the recording industry. Yet up to now the digital wave has only lapped at the edges of government bureaucracies and their business processes, in forms like e-government initiatives (Kim et al., 2007; Dunleavy et al., 2008, pp. 105–9; Margetts et al., 2008). Even so we review how the analyses in Chapters 3 to 6 especially show that responses to contemporary technology shifts have already become central to productivity advances or stagnation across most areas of big government.

Second, public sector organizations are especially dependent upon their collective capabilities for analysing what they do and working out ways to do it better. Inherently in the government sector these processes of ‘organizational learning’ and innovation drive the bulk of productivity change in public agencies, and they will continue to do so for the foreseeable future. Speeding up and accentuating organizational learning is thus uniquely

important within the government sector, far more so than in private business where intra-industry shifts of demand provide much of the motor of productivity advance. The strongly professionalized bureaucracies that dominate many public agencies have important capacities for recognizing failings and analysing through to solutions. But these capabilities work best in evolving professional services in incremental ways, and often become barriers to disruptive changes. There is no automatic assumption that government agencies will stay modern or efficient. The efficacy of organizational learning in departments and agencies is conditioned by a wide range of drivers for change, but also must overcome substantial barriers to innovation in these exceptionally long-lived organizations.

9.1 DIGITAL ERA CHANGE AND GOVERNMENT PRODUCTIVITY

The detailed analysis of UK central departments' over-time productivity profiles (in Chapters 3 to 6) strongly suggests that one of the most general and dominant problems in growing the productivity of government services has been countering bureaucratic conservatism about digital era changes. This difficulty does not just involve technical changes in IT, or even wider technology shifts, which, as we have seen in Chapters 7 and 8 may have little impact on their own on productivity levels.

Instead, the most pervasive and important digital era changes are normally full-spectrum alterations of whole organizations, considered as 'socio-technical systems'. Such shifts do not just involve the coordinated replacement or enhancement of computerized storage, networking and communications between agencies, customers and agency partners. For at least the last three decades they also essentially involve shifting from volumetric to risk-based administrative processes, and from the solo production of simple services by government agencies for passive consumers towards the *co*-production of more complex services with customers, users and citizens strongly involved (OECD, 2010). A large repertoire of organizational restructurings and developments are also entailed, especially in moving from government agencies that are relatively static, or at best show punctuated equilibrium patterns of change, towards more flexibly and continuously evolving organizations.

The significance of digital era changes is apparent from our contrasting case studies in the previous chapters, notably:

- The early adoption of digital working in a 'core mission' area of HM Customs and Excise (see Chapter 3), which sustained rapidly rising

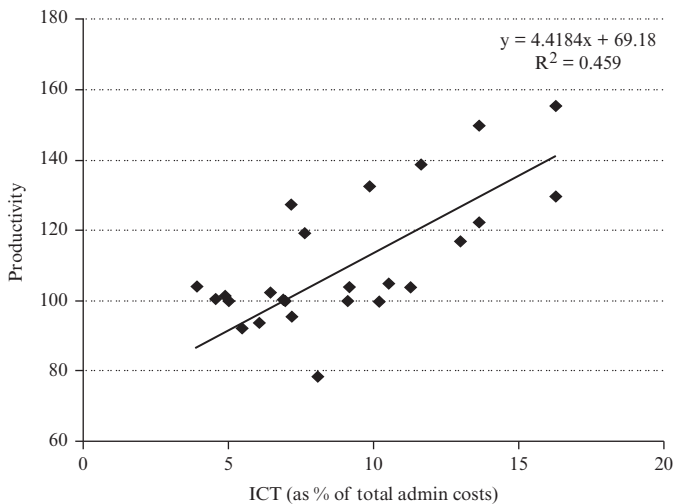
productivity in customs regulation alone (matched by an almost equivalent stagnation in shifting VAT administration into electronic pathways).

- The slow, initially uneven but later sustained push in parts of the income tax system (Chapter 4) towards modernizing databases and growing online transactions. Slow implementation meant that positive effects here were long delayed. But in tandem with later staff cuts, they did help produce some moderate productivity advances in Inland Revenue/HM Revenue & Customs (HMRC) over the long term.
- The short-sighted and partly tragic decision by the Department for Work and Pensions (DWP) to remodel itself in 2001 around phone-based processes, and then to do next to nothing about developing online transactions. DWP held off deciding to fundamentally simplify or adapt its complex business processes for the digital era for nearly a decade (see Chapter 5). The huge costs of reorganization around an already 'dead' model, combined with unhelpful political interferences and short-sightedness, produced an absolutely static productivity picture over more than two decades.

We can illuminate a little further the important role of digital era changes across these three detailed stories by combining our data on the role of ICT (information and communication technologies) spending changes, PFI (Private Finance Initiative) construction spending and the use of consultancies across the cases considered in Chapters 3 to 5. Again we interpret the PFI construction data here as indicative primarily of the large-scale business process modernizations that typically occur when new offices are opened or other facilities are relocated. New buildings can synergize strongly with the bringing in of new ICT systems to create the kind of complementarities discussed also in Chapters 7 and 8. Consultancy spending too might rise for some similar reasons. Alternatively, bringing in consultants may primarily be indicative of situations where normal civil service administration and planning cannot cope with a rush of new demands, especially new substantive policies being introduced for political or 'effectiveness' motivations at the same time that managers have to keep existing services running, which may lead to a drop in productivity. Consultants are also often brought in when 'inorganic' major reorganizations are undertaken – such as the government equivalents of 'mergers and acquisitions' in the private sector (White and Dunleavy, 2010). Again these shake-ups are often associated with productivity declines, perhaps for between two and four years afterwards.

The association between high levels of ICT spending and productivity

Figure 9.1 *Productivity versus lagged ICT spending across DWP, HMRC (tax) and Customs for 1999–2008*



Note: The values for ICT, PFI and consulting expenditures have all been lagged for one year, to reflect the fact that expenditure in these areas will have an effect on productivity in the next year at the earliest.

increases taken across our three departments is shown in Figure 9.1. The pattern here is first of all positive and, second, a relatively close association. Taken on its own, the trend line here suggests that increased ICT spending alone could account for over half of the observed variance in productivity increases. The association between PFI construction, construed as indicative of major administrative reorganizations and increases in capital intensity, and productivity levels is shown in Figure 9.2. It is again positive and shows a reasonably close fit around the trend line, sufficient to explain on its own around 38 per cent of the observed variance in productivity increases. (Of course, these successive bivariable comparisons are not additive. It is very likely that the effects of ICT investments and of construction-as-indicating-reorganization charted here account for the same portion of productivity change, not for different segments of the overall effect.)

Finally, the association between increased consultancy spending and productivity increases in our three main departments is shown in Figure 9.3. The relationship is clearly much weaker and not positive, with a much wider scatter of points around the basically flat (indeed very slightly negative) trend line. So no significant proportion of the variance in

Figure 9.2 Productivity versus lagged PFI spending across DWP, HMRC (tax) and Customs for 1999–2008

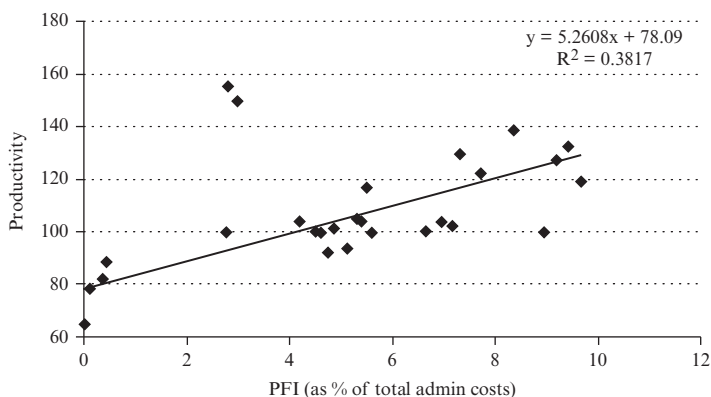
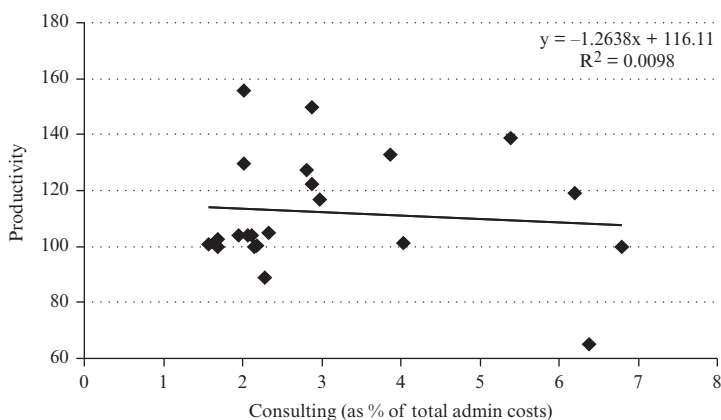


Figure 9.3 Productivity versus lagged consulting spending across DWP, HMRC (tax) and Customs for 1999–2008



productivity levels could be ascribed to raising consultancy spending. This differing result suggests that, primitive though this plotting exercise must be with the paucity of available data, there clearly are differences between the influence of the three independent variables here.

Looking Ahead

Looking ahead to the next two decades, it seems clear that there remains a very substantial potential for digital changes to fuel productivity increases

in public services. Such changes are likely to remain as fundamentally important to new business processes as they have proved to be since the mid-1990s. There is every indication also that the patterns of technological change are likely to continue to be fast, disruptive and hard to predict. So planning for and correctly anticipating future developments will remain every bit as difficult for government bureaucracies as it has been in the recent past. For instance, Chapter 5 showed that the Department for Work and Pensions ‘listened to its customers’ in an unsophisticated way in 2000. It consequently spent millions of pounds on a short-sighted policy of remodelling its business processes around telephone services – only to end up in 2008–09 realizing that a large majority of its customers were online with broadband internet and that the department was handling only half of 1 per cent of its customer transactions online. With the onset of recession and an unprecedented squeeze on its operational costs in the 2011–15 period, DWP has now altered course dramatically. It has adopted a ‘digital by default’ strategy that looks forward to no less than 80 per cent of its customer transactions being handled online by 2015. Under the guidance of its new Conservative minister, Ian Duncan Smith, in 2010 the DWP also finally launched a radical programme to integrate all of its previously fragmented benefits into a single ‘universal benefit’. The next stage of this plan is to connect this reformed benefit system also with the tax credits administered by the tax department (HMRC), so as to create a ‘universal credit’ system of state transfers, spanning across benefits and tax credits, with the aim of always creating incentives for people to go out to work wherever they can.

The strong synergies expected between simplification and reintegration of benefits on the one hand, and digital by default strategies on the other, are clearly in line with the ‘digital era governance’ model, with its emphasis upon reintegration, needs-based holism and digitalization (Dunleavy et al., 2008). But, of course, a great deal will hang on the effective implementation of the ambitious software developments and business process changes in both departments that are anticipated. Nonetheless, the substantial *volte face* in DWP thinking fits closely with some emerging indications elsewhere in UK government that fully digital strategies do offer prospects for radically improving the productivity of large machine bureaucracies. In the integrated HMRC, staff numbers by 2011 had fallen to 68 000 from the 2005 merger peak of 105 000, thanks in large part to the transition to the major (if long-delayed) online submission of taxes (National Audit Office, 2011b). Perhaps staff numbers have been over-cut, since significant problems of quality-shading services (like answering telephone queries) have also emerged. But most of this reduction looks sustainable still.

None of this should be taken to suggest that digital changes are easily managed or guaranteed to work, however. A ‘big bang’ planning approach still prevails in UK government, despite the Coalition government push since 2010 for more modular IT contracts. A lack of flexibility in departments and agencies and an inability to do organizational learning well are also evident, e.g. in the lagging take-up of social media in central government (Dunleavy, 2012a). These factors clearly hampered the first wave of public management responses to the growth of the internet and the web (Public Administration Select Committee, 2011). Yet in a very similar way, we can reasonably expect that the next two or three waves of disruptive changes in information technology and networking (such as the growth of social media) are likely to still confront many similar barriers to change within government.

These problem traits are greatly strengthened in the government ICT area, where private sector markets for supplying IT services to government have often not been competitive or not functioned well, most notably in the UK and in Japan. Comparing these two countries with other nations with more balanced government–IT–industry relations (such as the Netherlands, Canada and the USA), Dunleavy et al. (2008) argued that uncompetitive government IT markets produce a double bind for large systems integrator firms. They come to rely on huge outsourced domestic government contracts for relatively unchanging services and running legacy IT systems, and the firms themselves are encouraged to invest in lobbying for contracts and other rent-seeking behaviours. Once the firms acquire very large blocks of work they do not have to be innovative, focusing instead on just curating old-fashioned IT systems over long periods, using proprietary solutions as much as feasible, implemented at huge scale and in very long contracts – stretching to nearly two decades in the case of the current CapGemini contract with HMRC. This way they can simultaneously maintain a high cost base to generate profits from, and yet help insulate their market share, an oligopolist’s dream set up.

As an industrial strategy, allowing a closed oligopoly to develop in government IT is lamentably short-sighted, for both government departments and the firms involved. The privileged firms cannot grow their markets via exports, because their expertise is solely in running outdated and expensive à la carte systems, tweaked to indulge the conservatism of large bureaucracies and to respond to the (often uncoded) ‘value guidance’ (sometimes just whims) of politicians. The firms have no interest in promoting technologies that would produce low-cost, modular solutions that could potentially go on to win business in much larger-scale world markets. Where contractors attract lots of public criticism, as in the UK with the highest scrap rates of government IT projects in the Western world, they

tend to hunker down defensively and become even more locked in to subsisting on domestic government contracts.

By contrast, the Netherlands, Canada and the USA suggest that a genuine competition of multiple providers, multiple solutions and approaches is always important, although each country secures it in different ways (Dunleavy et al., 2008). In the Netherlands and Canada, careful in-house regulation of government IT competencies and the maintenance of competitive balance have preserved IT sector competition, even in professionally concentrated policy systems. In the USA the sheer size of the public sector market, lower industrial concentration ratios and rules favouring small business bids have all helped to maintain far more vigorous competition amongst contractors – creating some periods and sectors of great advance, especially at the federal government level.

Interacting with the substantial problems of government–IT–contractor relations, it is important to recognize that bureaucratic conservatism in adopting digital technologies is not just a one-time problem, which can be easily broken down by e-government or other one-off initiatives, and thereafter marginalized. Instead, long-lived government bureaucracies have a capacity to adopt early technological changes in ways that erect new forms of obstacles to future change. When government organizations incorporate previous waves of innovation, usually with strong time lags, they tend to concretize them in forms that resist further developments. Even as UK government at last moves to ‘digital by default’ strategies in social security (Tinkler, 2011), problems are likely to remain.

For example, governments across the Western world have constructed tens of thousands of websites, which in the tradition of bureaucracy (‘rule by offices’) show an almost complete fascination with the written word. Every government website is awash with lots of complex text, and almost nothing else but text. There is still startlingly little use of any graphics or images, let alone simulations or games across government sites. Yet the massive online gaming industry has proved time and again that graphics-based communication can substitute for text very effectively, allowing people to complete complex tasks without having to be highly literate (or numerate). Such an approach would clearly have many benefits for people who are not educated to the post-university level that government websites are mostly written for. Government use of rich media is also still in its infancy, and the use of new technologies – such as low-cost remote interviewing via Skype – lags years behind civil society practice. At the most simple level, almost no government sites worldwide ‘play back’ users’ views or behaviours to them in order to help their customers sort out what materials were found useful by other citizens, although business websites like Amazon have done so for a decade and a half. The production of these

highly conservative government websites also uses a lot of staff to run expensive and conservative ‘content management systems’, and simpler-to-use alternatives are generally ignored.

Having slowly learnt how to do web content in conservative, risk-averse mode over the noughties, it will take most government organizations perhaps another five to ten years to recognize and adopt social media technologies already pervasive in the business sector and civil society. By the time government has adapted to this wave, another set of waves of change will certainly have occurred in the leading sectors of society. For instance, few if any government agencies yet realize (in late 2011 as we write) that their overwhelmingly text-based information could be generated far more economically (and altered far more flexibly) using blogging software than the more complex editing systems that government and its contractors have adopted (a blog is just a serially ordered website). Even if officials could be made aware of this shift, on past form it would take a lot of effort and perhaps five or six years to get agencies to accept a change from relying on their older website techniques.

If digital changes persist at the rate of the last 20 years, then a whole new set of younger staff, with a different education and socialization, will need to be recruited into government every three or four years in order to partly counteract bureaucracies’ risk-averse mentality on investing in ICT changes. And severe organizational politics problems will typically recur in empowering each new generation to counteract government bureaucracies’ wish to standardize on just one fixed, long-life template for handling digital change.

9.2 IMPROVING ORGANIZATIONAL LEARNING IN GOVERNMENT

The ability of government organizations to detect failings in current approaches, and to work out how to do things better, is always the fundamental driver for improved productivity within government, not least in the face of rapid digital changes. The capacity for users to shift their custom between suppliers is inherently much less in the public sector, despite the initiatives and perennial optimism about ‘quasi-markets’ reviewed in section 10.2, page 315. So the most pervasive key to creating sustainable productivity growth in government sectors is to foster more and faster ‘organizational learning’.

A learning organization is one that is ‘skilled at creating, acquiring and transferring knowledge, and at modifying its behaviour to reflect new knowledge and insights’ (Garvin, 1993, p.110). This process involves:

‘systematic problem solving; experimentation and the testing of new knowledge; learning from experience; learning from others; and shared knowledge and knowledge-spreading mechanisms’. There has been a long academic debate about how far ‘organizational learning’ differs from the simple aggregate of the individual learning undertaken by people within the organization (especially its leaders). Yet:

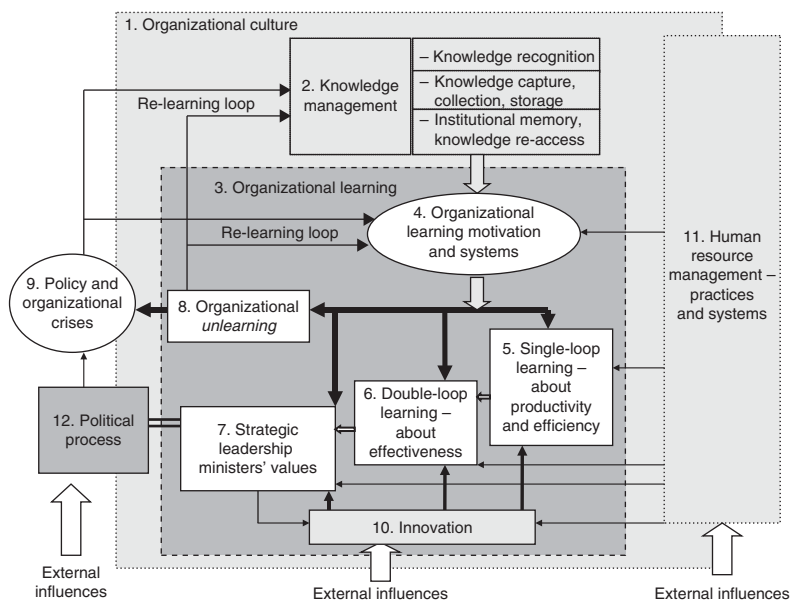
although organizational learning occurs through individuals, it would be a mistake to conclude that organizational learning is nothing but the cumulative result of their members’ learning. Members come and go, and leadership changes, but organizations’ memories preserve certain behaviors, mental maps norms and values over time. (Hedberg, 1981, p. 6)

There is agreement also that a learning organization is one that is inherently agile: ‘one that is quick to identify, digest and apply the lessons learned in its interactions with its environments. For public sector organizations, this involves developing innovative solutions to the constantly changing legal, political, economic and social environment’ (McNabb, 2007, pp.126–7). Many commentators have stressed the barriers to change in the public sector, including the reduced strength of competition processes and the difficulties of developing strong reward systems within restrictive government pay practices (Burgess et al., 2004; Moynihan and Landuyt, 2009). These observations certainly have force. But against them we need to recognize that government bodies are characteristically larger organizations, with elaborate internal capacities to search for and assimilate new knowledge, and often with strongly professionalized staff who embed individual and organizational learning into the whole definition of their occupational communities. At the least, there is no clear imbalance of these factors sufficient to suggest that government agencies are worse (or better) than the vast bulk of private sector businesses.

Figure 9.4 shows something of the complexity of the processes involved in determining how much organizational learning occurs in government departments and agencies, which have been exhaustively considered elsewhere (Gilson et al., 2008). Here we briefly work through the influences set out in the sequence numbered in the Figure, commenting on how they link to the problems of improving innovation and public sector productivity.

1 Organizational culture This is the broadest framework within which organizational learning takes place. In cultural theory terms most public sector agencies are resolutely ‘hierarchist’ organizations, marked by a high level of ‘grid’ pressures (formal rules that determine individual behaviour) and by a high level of ‘group’ pressures (strong surveillance of individual behaviours and inter-personal requirements to conform to group norms),

Figure 9.4 *Situating organizational learning in government sector organizations within external influences*



especially in machine bureaucracies and technocratic and regulatory agencies (Hood and Dunleavy, 1994; Hood, 1998).

Professional bureaucracies push this model towards a far more ‘egalitarian’ pattern where group pressures are strong but grid influences are reduced, especially in agencies dealing face to face with clients (as hospitals do with patients, and schools with pupils). Inherently greater levels of work autonomy for professional staff here also foster more small-scale, individual innovation in the treatment of clients. And when solutions are proven to work, professional bureaucracies are often adept in ensuring that micro-innovations are quickly absorbed and accumulated into a persuasive (often binding) concept of ‘professional good practice’.

At another extreme, hierarchist practices in bureaucracies can degenerate into a ‘fatalist’ culture where grid (rule-bound) pressures are very strong, but where group cohesion is absent and organizational members distrust each other. With a deficit of collective resolve to sustain innovation, it is not surprising that the people involved in a fatalist organization become mentally defeated by the problems they face – so that the agency focuses simply on ‘coping’, implementing existing practices with little strategic direction or hope for improvement. Bastow (2012) presents an

in-depth analysis of this phenomenon, focusing on the UK prison service's record of maintaining (but still managing) continuously over-crowded jails for more than three decades.

Despite the efforts of new public management (NPM) reformers, and the introduction of many practices and concepts transferred across from private business in the last four decades of public management reforms, few public agencies have the kind of 'individualist' culture characteristic of many small and medium-size private sector firms. Such businesses mostly have low (or at least lower) 'grid' (rule-bound) constraints, plus weaker 'group' inhibitors stopping individuals making innovations.

2 Knowledge management (KM) KM is the most relevant aspect of the ways that organizational culture shapes organizational learning capacity. KM involves the complex of processes by which knowledge is first recognized as being of lasting value and relevance by members or units of the organization, rather than the information involved being classed as 'noise', or seen as only ephemerally relevant or as unreliable (Haynes, 2005). Once categorized, knowledge must then be captured. Yet at any given time the vast bulk of the 'knowledge' inside an organization will necessarily be 'informal', locked in the minds and practices of members of the workforce (Nonaka and Takeuchi, 1995).

Recognizing, formalizing and storing knowledge is only going to be effective if it is linked to a capacity to recall that this stored knowledge exists and could be relevant to a newly (or apparently newly) occurring problem. As the French essayist, Montaigne argued: 'Memory is essential to all the operations of reason' (quoted in Sertillanges, 1978, p. 186). If an organizational or institutional memory is missing then access to stored knowledge will not occur and learning cannot be effective. Indeed, without some memory capacity problematic phenomena will not be recognized and appropriately categorized, so that a learning process cannot get started. To look ahead a little, one basic chain of activities needed for learning is likely to be:

Memory → Problem recognition → Motivation to act → Capacity to act
→ Review

3 Organizational learning systems These are formed within (and depend partly on) first general organizational culture influences, which largely determine what the organization seeks to achieve (Nevis et al., 1995). A second formative element is given by more specific knowledge management capacities – which fix how (and how effectively) the agency undertakes search behaviour when problems are encountered and recognized. Systems are most developed in organizations whose missions are dependent upon

constantly changing their activities and outputs to respond to a rapidly changing environment, such as firms operating in highly dynamic industrial sectors. In concrete terms Finger and Brand (1999) suggest that the degree of commitment to organizational learning can be measured in terms of the resources devoted to, and the extent of, four main learning activities:

- educational and training activities;
- the active self-use of learning sources inside the organization by staff or units;
- the active use of learning sources outside the organization;
- the creation of an environment conducive to learning.

And six important learning capacities:

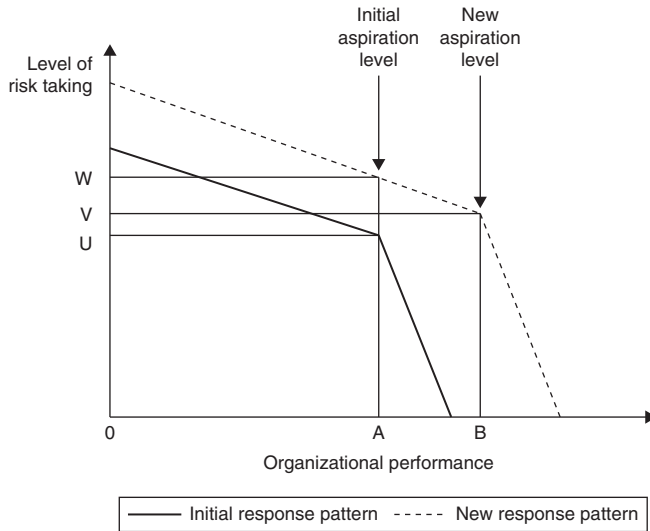
- individual learning capacities amongst staff members;
- collective learning capacities by units and levels;
- structural (triple loop) learning capacities (see below);
- cultural learning capacities;
- capacities resulting from the organization of work;
- the capacity of the organizational leadership to learn and promote learning.

On some of these dimensions, such as recruiting people with professional or graduate education and an emphasis on training, there are good reasons to believe that public agencies perform well – especially in professional bureaucracies like public healthcare and education systems where professional staff need to be continuously recertified. Modern public management human resources (HR) systems also assign a far higher priority to formalized professional development than many businesses, not least because public managers and skilled staff tend to stay in the government sector for long periods.

By contrast, Olsen and Peters (1996) argue that there are likely to be substantial barriers to organizational learning in public organizations, especially:

- an often common resistance to change amongst long-lived and rule-bound departments and agencies;
- a modest capacity to alter behaviour and organizational structures because of strong ‘group’ norm constraints, staff resistance and typically strong unionization; and
- a loss of learning continuities that occurs because of election cycles and party alternations in government.

Figure 9.5 Greve's model of how an organization's performance set against its 'aspiration level' triggers risk-taking activity



In addition, most organizational learning is done in 'ambiguous' conditions (March and Olsen, 1975) and by trial and error (Harford, 2011). And yet government departments are often held harshly to account over 'errors' or expenditures on things that do not work out (see below). Trials are acceptable, but not errors. Especially in the modern (24-hour news) period, governments feel they must be seen by the public as continuously successful. This often skews official stances towards proclaiming success despite the actual results, and to quickly brushing 'lessons learned' under the carpet, rather than analysing them carefully.

4 Motivations for organizational learning Organizational learning motivations have been linked in many different theoretical approaches to factors such as the pace of change in the organization's environment, and more controversially to organizational cultures and leadership. However, the nexus of issues here is complex, and little evidenced. Accordingly we follow one of the simplest yet most empirically grounded behavioural models of organizational learning within large firms developed by Heinrich Greve in his book *Organizational Learning from Performance Feedback* (2003). Figure 9.5 shows the basic framework, with the level of organizational performance graphed on the horizontal dimension, and the extent to which the organization undertakes risky

search behaviours for innovations or new solutions graphed on the vertical dimension.

Greve argues the following:

- Organizations set a level of performance that they aspire to achieve – for instance, initially at A on the horizontal axis measuring performance here. Firms can choose different aspiration levels – for instance to be an industry leader, or to be a medium player, or to stick to a small niche within the market. Analogously, agencies can set aspiration levels that vary from being outstanding, through routine performance, to a fatalist coping-only strategy. A wide range of organizational structure and culture influences will combine to determine the aspiration level actually chosen.
- When an organization is achieving its aspiration level it will have an equilibrium level of risk-taking activity, given here by U. If the organization is not achieving its aspiration level A then it will undertake more risky activities designed to boost its performance, shown by the thick solid line right of point A here. Organizations generally economize on risk-bearing activities whenever they can, and always need to be pushed if they are to do more than they have historically undertaken. The key thing to notice is that this response line rises to the left quite gently, so that under-performance triggers only a moderate willingness to incur extra risk-taking. On the other hand, if the organization is already performing above its aspiration level A the organization will tend to cut back quite sharply on its risky activities and research on innovative solutions, as shown by the thick solid line to the right of point A. This creates the kinked response curve focused at A shown in Figure 9.5.
- Figure 9.5 also shows what happens if the organization is forced to increase its aspiration level, in this case to the new level B on the horizontal axis. In industrial contexts this can occur when another firm makes an invention or adds to the quality of its product, or when a new technology comes along, rivalling the firm's existing approach. The key analogy in government is the election of a new political party to power, where the new set of ministers or government executives demand that a government agency 'raise its game' and do better in delivering its core mission or a new mission. In the very short run, almost any organization will not be able to respond effectively to such disruptive developments – and so it will now have a deficit in the performance level it needs to aspire to, of B minus A. As a result, it is forced to trigger an exceptional level of risk-taking activity, shown as W on the vertical axis, in order to try and close this gap.

- However, in the long run the previous pattern of response lines will reform, but focused on the new aspiration level B, as shown here by the dashed line in Figure 9.5. Assuming that the organization can close up the performance gap via its initial, extraordinary level of risk-taking activity, then its R&D or other efforts will tend to decline back towards a new sustainable level V. This is higher than the original pattern at U, but it will be lower than the exceptional level (of W) achieved shortly after the new aspiration demands came into effect.

Thus in Greve's model the key things that will influence organizational learning and other expensive risk-taking activity (such as spending more on R&D, shifting business models, adopting new organizational structures, uprating training efforts and energetically seeking product innovations) will be the dialectic of the organization's aspiration level and its performance.

Various kinds of adaptive responses may tend to offset organizational learning – in particular a situation where an organization continuously adjusts its aspiration level downwards in response to its poor performance, rather than incurring the costs and risks of looking for new ways of carrying out its role. Pressures on firms from simple organizational survival may make them choose to adaptively reduce their aspiration levels as a response to radically new environmental pressures, rather than trying to raise their game (Greve, 2003). 'Permanently failing organizations' can live on for long periods in the private sector in protected niches (Meyer and Scott, 1992). This potential is even greater in the government sector for the reasons discussed above (see pp. 27–8).

Firms and agencies may well have previously rigorously eliminated all internal slack, under pressure to realize 'shareholder value' in the private sector, or because of NPM imperatives in government. Such organizations can run into particular barriers to being able to respond creatively to performance deficits that occur later on:

Organizations practising lean management techniques may have so few resources that can be redirected to search activities that their capability of generating solutions is severely limited. Instead, they can imitate solutions available in the environment, but in a solution-poor environment, even this is difficult. (Greve, 2003, pp. 169–70)

5 Single-loop learning Single-loop learning is an incremental improvement effort, orientated to improving efficiency. Here staff or units ask: 'How can we improve the activities that we are already doing? Or more cheaply produce the outputs that we already produce?' Such search is

often focused on error tracking and process monitoring. Organizations tend to hunt for solutions to problems (so-called 'problemistic' search) in the immediate neighbourhood of the problem itself. Alternatively they may look back to previous similar problems, seeking for either exact solutions, or for analogies and parallels that might apply to the current problem (Greve, 2003). By contrast, the 'garbage can' approach to organizational learning also emphasizes that often within an organization there may already be people who are advocates or enthusiasts for particular solutions; they are actively looking for ways of applying their preferred approach to new problems (Cohen et al., 1972). For instance, IT or web staff may be keen to promote new information systems or internet forms of working as ways of tackling problems to which they have not yet been applied. Some authors assert that public organizations in liberal democracies are often biased towards extant organizational practices, existing tasks and processes. Consequently they get stuck in incremental, single-loop learning, because only such issues unambiguously fall within the 'non-political' remit of the bureaucracy. But even here 'garbage can' processes can produce limited innovation.

6 Double-loop learning Double-loop learning is more ambitious, asking: 'Are we doing the right things? Should we be undertaking different activities or producing different outputs?' Organizational leaders look more widely and inventively for permanent solutions to sources of error or under-performance, by varying their activities or outputs more fundamentally. In practice, the most knowledge about how processes are working is likely to be tacit and to be concentrated at the grassroots of the organization (Nonaka and Takeuchi, 1995). Yet often these staff are also shut out from asking broader-range questions about effectiveness by hierarchical structures. In government, double-loop learning may be especially restricted in those 'machine bureaucracies' where officials are most constrained to fit in with the political guidance on values from the governing party's ministers or executives (Ranson and Stewart, 1994; Romme and van Witteloostuijn, 1999). However, in professional bureaucracies the distinction between single- and double-loop learning is more extensively blurred. Here professional staff may be able to undertake so-called 'slack search' – where they can reflect more on what they are doing, experiment with different modes of achieving given objectives and come up with alternatives.

7 Triple-loop (or strategic) learning Triple-loop learning is the most difficult and probably rarest form of response. The concept argues that organizations can only radically reframe how they look at their activities

and roles by querying to some degree their underlying assumptions, principles and fundamental objectives. Yet critiquing the ‘conventional wisdom’ often calls into question strongly developed organizational beliefs and values. This stage is also one where an organization may self-consciously choose its aspiration level for performance anew, rather than simply operating with one that has been historically or conventionally accepted. Some authors argue that public sector organizations operating on their own can only be single-loop learners, because the double and triple loops considered here are seen as the reserved domain of political leaders (Common, 2004).

We turn next to a series of extra elements that seem to be very important for public sector agencies’ organizational learning, but that have not been so extensively discussed in the relevant literature.

8 Organizational unlearning Organizational *unlearning* denotes a particular sub-dimension of performance in which there is conscious maladaptation to environmental stimuli, and in which unwanted outcomes are allowed to accumulate without countervailing actions being taken by management (Hedberg, 1981). Although some commentators (such as Easterby-Smith et al., 2000) are sceptical about the distinctiveness or value of ‘unlearning’, looking at how organizations lose or discard knowledge has considerable significance in contemporary government. Serious, inadvertent lapses of organizational memory have occurred in government across many major nation states. A good example was when the UK Department for Work and Pensions (DWP) forgot about a forthcoming change in pensions contributions that was legislated in 1986 but did not actually come into force until people began retiring in 2000. For many years in this period DWP misadvised people planning their retirements after April 2000 about their forthcoming pension entitlements – misadvice that resulted in the eventual accumulation of a £5 billion liability by the time that the mistake was discovered (National Audit Office, 2000a). A similar, more foreseeable but equally long-run instance of unlearning occurred following the phased decisions by UK ministers in the period 1994 to 1999 to remove exit controls from UK airports and ports. This meant that the Home Office (responsible for immigration matters) progressively lost all its ability to understand who was in the country from overseas. When a senior official finally confessed this to a Parliamentary committee, the roof fell in on the previous cost-saving policy. Exit controls were reintroduced, but will not be implemented until 2015 (National Audit Office, 2011c, p. 32).

Unlearning can also occur through departments or agencies failing to keep contextual information and planning assumptions up to date.

For instance, a 2001 outbreak of an agricultural animal disease (foot and mouth) in Britain was initially tackled by the department involved (Department for Environment, Food and Rural Affairs – Defra) using a fully prepared and thorough ‘playbook’ or manual –written up in 1968, when the last UK outbreak had occurred. Thirty three years late the same measures proved completely ineffective in halting the outbreak, chiefly because the Defra playbook assumed that farmers only moved their animals to local markets. In fact, because of better transport and more efficient markets since the late 1960s farmers had shifted over to moving animals much more extensively around the country, to wherever they could get the best prices. So the playbook’s main remedies (local movement bans and local precautionary killing of animals around farms where outbreaks had occurred) no longer controlled the spread of the infection. Only a late intervention by PM Tony Blair, using independent modelling of the 2001 outbreak by outside scientific experts, finally allowed the problem to be brought under control, by imposing a nationwide animal movement ban and undertaking a mass slaughter of all animals at risk of infection.

9 Policy and organizational crises These crises are the typical consequences of such mistakes. They are occasions where unlearning is especially large scale, intense or sustained. The seriousness of such problems is boosted by large organizational scale, weakly controlled organizational leaders, and a rapidly changing environment – all features that are common in many industrial sectors. In government terms, some factors most commonly magnifying crises include:

- centralized governments operating over large areas, with decisions affecting tens of millions of people at once;
- fast shifts in policy that are rapidly and reliably implemented (so that large-scale mistakes accrue quickly);
- an absence of constitutional checks and balances on the central government, especially in terms of weak legislative oversight;
- strongly nationalized media systems and adversarial party politics, both of which tend to fuel a lot of policy ‘churn’ when party control of government alternates, and there is strong political discounting of inconvenient evidence at other times.

These are all prominent features of the broader context of policy-making in the UK (Dunleavy, 1995).

Major crises often reveal the potential for large-scale ‘policy disasters’ or ‘policy fiascos’, where foreseeable or well-signposted mistakes

nonetheless accrue on a massive scale. Such crises are then important triggers for major restructuring of the organizations involved. In the private sector, affected firms typically undergo bankruptcies, divestments and major restructuring, or hostile acquisitions. In the public sector the responses to crises often imply top leadership changes at the official level (and sometimes amongst politicians too), mergers or recombinations of agencies. Sometimes more fundamental changes of governance architectures occur (Rochet, 2007). A key US example was the establishment of the Department of Homeland Security, which brought together 28 previously separate US federal agencies, following the failure to prevent the 9/11 attacks in 2001.

10 Innovation Innovation is the final key component of productivity change, and has been much studied in the private sector (as discussed in Chapter 1). No comparable degree of research has been carried out on innovation within government, although ‘diffusion of innovation’ in some analogous service organizations has been covered (Greenhalgh et al., 2004) and in decentralized agencies, along with cross-national convergence in how EU member states operate (van Stolk and Wegrich, 2008). However, the 2006 NAO report *Achieving Innovation in Central Government* focused especially on organizational-level innovations (Dunleavy et al., 2006b). It found that innovations were most often triggered either by an expenditure cutback or another need for savings (at that period in the UK mostly linked to the Gershon Review); or by a political intervention by a minister (and less often by top administrators). In the absence of such stimuli, government departments and agencies tended only to register possible innovations, but then to store them up unimplemented until such times as they were needed because of external demands for savings or similar pressures. Government organizations were also poorly set up to behave as serial innovators, which they seldom reported doing. Instead they tended to move erratically from one single-shot innovation to another. Every ten to 15 years they would also tend towards some form of ‘big bang’ policy change or reorganization, cumulating lots of unimplemented changes into a large, unwieldy transformation, often linked to an IT ‘refresh’ or re-contracting. Most depressingly of all, the overall scale of innovations identified to the study by major UK central departments and agencies was often low, with median values under £1 million (in 2006, a boom year for public spending).

The final two elements of Figure 9.4 may seem to have chiefly background implications for organizational learning. But both have been heavily emphasized in the conventional public administration literature,

and often also in the rhetoric of day-to-day debates about governance improvements within liberal democracies.

11 Human resources practices and systems How agencies manage personnel can have a strong influence on organizational cultures, the extent and character of organizational learning, and on the rates and types of innovation undertaken by staff. In the public sector the imprint of exceptionally long-lived civil service characteristics is hard to underplay in explaining between-country variations in the character of national bureaucracies. Bernard Silberman (1983) showed how the modern Weberian model of bureaucracy was no sooner adumbrated in the late nineteenth century than it began to be differentiated into radically different forms. 'Professional' (or 'light touch') civil service systems emerged in the USA and UK, that relied on university education to socialize recruits before admission into public interest values, with thereafter only loosely coordinated public service systems. (The UK also fostered regular transfers of 'generalist' staff across central departments, whereas the USA developed separate, departmentalized HR systems, even for top staff.) By contrast, in France and Japan much more organization-centric, or heavy-duty versions of Weberian bureaucracy developed. Civil servants were extensively socialized into very strong departmental cultures in powerful and distinct ministries. These differences between countries remain remarkably enduring to this day. Recently, NPM changes have variegated the more hierarchical French and Japanese systems. And in the UK, recruitment to the senior civil service has broadened to include people from other parts of the public sector, plus some private sector late-entry staff. But these four countries' civil service cultures continue to show nationally distinctive features. In Whitehall a 'generalist' bureaucratic culture has remained strong and largely intact.

For organizational learning the key human resources management aspects are the extent to which officials normally work in flexible teams on projects (normally better for innovation), or instead manage separate 'desks' (which creates strong risk-averse incentives to 'keep your head down'). In many public agencies 'blame' cultures embedded in HR practices also inhibit innovation by penalizing those who try new approaches (of which a certain quota must fail). They lead to the marginalizing of people pushing entrepreneurial solutions. Most public sector contexts are a long way from the 'no blame' reporting of mistakes in safety bureaucracies (like airlines), or the rational approach to managing portfolios of projects (where some will fail) found in the most innovative private businesses, such as venture capital firms. Instead the government context tends to require proof in advance that projects will succeed; to be intolerant of any level of failure (and hence to lack any realistic notion of managing

portfolios of projects); and to be slow to acknowledge that mistakes have been made or that policies have not worked – unless political changes intervene (when over-adjustments may occur).

12 Political and public discourse influences These influences on organizational learning cannot function as the sources of detailed innovation that liberal democratic theory or the older public administration literature have conventionally assigned to them. Taken on their own, the stimuli from electoral politics, the interest group process and media scrutiny can easily hinder as much as they encourage effective organizational learning. Indeed, in especially partisan climates they may easily be counterproductive, although crises may also spur changes (Coopey and Burgoyne, 2000; Dekker and Hansen, 2004; Ferdinand, 2004; Rochet, 2007). Where a ‘blame culture’ is fuelled by opportunist politicians it typically encourages senior officials and public managers to adopt passive, highly risk-averse stances, that also often let steady productivity growth slide through organizational conservatism.

Yet, at the same time, it remains true that democratic politics and the deliberative processes in public discourse, construed more broadly to include a ‘polyarchic’ (‘rule by the many’) process, can create myriad triggers for learning by public agencies. This is usually stated more definitely than is merited: ‘If the barriers to organizational learning in the public domain are to be overcome, it will be achieved through strengthening and widening access to the arena of public discourse and the political processes that relate to it’ (Ranson and Stewart, 1994, p. 178).

Table 9.1 provides a full listing of the multiple sources of organizational learning (discussed in more detail in Gilson et al., 2008). The higher transparency of public agencies (relative to internal decision-making in private firms) is one key stimulus, an approach summed up by its most enthusiastic exponent, Robert Behn (2000), as ‘360 degree accountability’. In a well-functioning liberal democracy, political responsiveness and openness can provide a strong impetus towards continuous organizational learning, innovation and productivity – so long as these values are explicitly recognized by politicians and allocated some resources of attention, funding and support, and some space for trial and error processes to work out.

Political impulses are most distinctively involved in organizational learning after crises become manifest, or in cases of organizational unlearning emerging. In both cases political interventions usually focus wider external lesson-drawing on fostering relearning, and on a reorganization of knowledge management processes in the agency (the two ‘political’ flows shown in Figure 9.4). Yet Table 9.1 also shows that there are strong and specific mechanisms to back up, aggregate and condense,

Table 9.1 Six key sources of organizational learning for government organizations

Source of Learning	Key Component Influences	Time Period in Which Factor Operates
A Internal resources, experience, history	Organization's 'institutional memory', stored experience	Long term
	Staff expertise and 'ordinary knowledge' – staff renewal and culture change	Long and short term, all stages of projects
	Innovation record – e.g., transitioning to a serial innovations approach	Long term
B Citizens, customers, users	Citizen/consumer/user research and feedback	Short run only
	Learning from 'citizen redress' processes (complaints, administrative appeals, regulatory cases, legal actions by citizens or customers)	Long and short term
	Development of citizen/consumer choices and behaviours	
	Analysis of transactional activities and contact data	Mainly short term Mainly short term
C Partners, rivals, close comparators	Experimentation, piloting	Short term
	Main service contractors	Long term
	Major uses of consultants (and evaluations by consultants)	Short term
	Consultancy strategy	Medium term
	Other service partners (e.g., non-governmental or local bodies)	Long term
	Staff secondments, culture-sharing with other organizations	Long term
	Rivals or near-neighbour organizations	Long and short term
Close comparators in home government or private sector	Short term	
D Top-down controls	Close comparators overseas	Short term
	Scrutiny and interactions	
	Advice, intelligence and direction from 'core executive' departments (e.g., Cabinet Office, Treasury, PM's Office in the UK; Executive Office of the President or the Office of Management and Budget (OMB) in the USA)	Short term, post hoc Long term
	Prime ministerial or presidential directives on how to implement trans-governmental change programmes	Long term Short term and post hoc

Table 9.1 (continued)

Source of Learning	Key Component Influences	Time Period in Which Factor Operates
	(For agencies or other quasi-governmental bodies) overview by central government department/minister	Long term
	Centrally set rules for propriety, human resources policies and organizational management	Short term
	Centrally set crisis management or risk management rules	(but also longer-run learning)
E Critiques, advice, media scrutiny	Legislative oversight, especially departmental committees and general audit committee	Post hoc, mostly short term
	Main stakeholder consultations and critiques	Post hoc, short term
	Other interest or pressure groups, advocacy coalitions	Short term
	Media scrutiny and commentary	Short term
	External think-tanks	Medium term
	Academic research and criticisms	Medium to long term
	Other researchers' or consultants' commentaries	Medium to long term
F Testing interactions, crises, external review processes	Systematic learning from mistakes	Long term
	Departmental crisis management and response	Medium term
	Internal audit and review	Short term only
	Periodic reviews of department or agency strategy and leadership capabilities	Post hoc, medium term
	External audit and review (NAO and main sector review bodies, such as the Healthcare Commission)	Post hoc, often lagging a year or more behind implementation

and make effective the routine or 'normal' political and public inputs. Especially significant here are:

- the supervision of central or federal departments by 'core executive' agencies (responding to prime ministerial or presidential influences);
- the supervision of lower-tier (regional or local) agencies by national departments;

- the operations of external ‘Supreme Audit Institutions’ (such as the Government Accountability Office in the USA, the National Audit Office in the UK or the French Cour des Comptes); and
- the multiple institutionalizations of lesson-drawing embodied in internal control or internal audit rules (and sometimes in regular ‘capability review’ processes) within the government sector.

So, if these political influences can be tuned with internal controls and arranged correctly the combined effects of political and public discourse influences on organizational learning in government can be substantial forces for good. They are responsive to crises especially, but they can also provide a detailed discipline that is well-informed, specific and backed up by mechanisms to regularly and systematically capture and focus criticisms. The trick, of course, is to reach a point where effective institutional arrangements are in place, and chime effectively with an internal organizational culture receptive to learning and innovation.

Conclusions

There is nothing immutable about where productivity advances occur in advanced industrial societies. The long swing of change over three decades since 1980 has already seen rapid improvements in the actual and potential productivity of large-scale government bureaucracies. Productivity gains have followed especially from a series of often-ignored foundational changes – including the initial automation of office processes, improvements in measuring costs in outputs accounting, and the development of multiple key performance indicators. Taken together, these advances facilitated a shift to risk-based systems of administration that have significantly cut the staff needed to handle standard tasks (even as the complexity of tasks that governments are asked to do has *perhaps* expanded). In this process some long-lived and apparently static machine bureaucracies of the classic Weberian type, such as immigration agencies and tax agencies, have moved from IT laggards to operating large and relatively high-tech IT systems. In large countries like the UK, or even more the USA, these IT set ups are more complex and developed than those run by almost all businesses, except some of the world’s giant corporations. Nor is there any reason to suppose that this potential for changes is played out or reduced. The current waves of IT and web changes offer manifold opportunities for redesigning public service delivery around ‘essentially digital’ processes.

Yet there is no simple technological determinism at work here, nor do shifts in technology on their own achieve the kinds of organizational re-envisioning and re-purposing on which the greatest advances in

productivity may depend. Like many large firms, public sector organizations may well initially pick up innovations in conservative and non-forward-looking ways, making strategic mis-steps in their responses, especially to disruptive technological change. They will tend to bend new technologies and processes to serve their existing organizational culture, rather than use them to critically reevaluate what they do. The 'politics versus administration' dichotomy often strengthens such tendencies, with politicians being risk averse and short-termist.

Systematically prioritizing and boosting organizational learning at *all* of the 12 stages set out in section 9.2 offers strong prospects for converting government services from productivity laggards into zones of continuous advances in delivering services. Yet some confidence that the organization will go on operating in a given functional space, along with an explicit and consistent focus on productivity growth, are both needed if government departments and agencies are to make the steady investments needed to get better at organizational learning. And it is here that in the recent past many problems of implementing productivity improvements have arisen, to which we now turn in our final chapter.