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# DEFINING E-GOVERNANCE<sup>1</sup>

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## ABSTRACT

*This article sets out to establish a definition of the term ‘e-governance’ and suggests that not only is e-governance distinct from e-government, but that this distinction is important to scholarship and practice and that important differences exist between e-governance and traditional concepts of public governance. In order to establish a definition of e-governance, a conceptualization of public sector governance which differentiates between structural and normative governance is proposed. The influence of ICT on each of these forms of governance is then examined using a number of examples. It is argued that while ICT has little effect on some aspects of governance, it has a considerable impact on others.*

**KEYWORDS:** e-governance, governance, e-government, e-democracy

## A QUESTION OF MEANING

*“When I use a word,” Humpty Dumpty said, in rather a scornful tone, it means just what I choose it to mean - neither more nor less” (Lewis Carroll – Alice Through the Looking Glass).*

The expression “*paving the cow path*” or one of its equivalents is familiar to most people who have ever worked in systems analysis or development. The usual meaning of this phrase is computerizing a process in a way that does not change or improve the process itself. The past two decades have seen the emergence of a widespread practice of placing that the letter ‘e’ in front of words such as government, democracy, commerce, business, politics, warfare and so on. An important question when prefixing any field with ‘e-’ is whether the impact of information and communications technology (ICT) is such as to

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1. This is a modified and extended version of a paper first presented at the Hawaii International Conference on Systems Sciences, Kauai, January 2010.

change and/or improve the field in some fundamental way or is it just another case of cow path paving?

‘e-Governance’ is one such expression. This term has been in circulation for over a decade, but it has gained traction in recent years where, like digital and transformative government, it is often used as a substitute or replacement for the term ‘e-government’. The term is commonly used in India where has long served as a synonym for e-government (Marsh and McNiven, 2003), but this usage is by no means restricted to that country. Dawes (2008, p. S36), for example, defines e-governance thus: “E-governance comprises the use of information and communication technologies (ICTs) to support public services, government administration, democratic processes, and relationships among citizens, civil society, the private sector, and the state.”

This conceptualization of e-governance is unfortunate because there are real differences between e-government and e-governance and these differences are not just questions of academic nuance. And there are other forces that add to the confusion between these two concepts. The ICT industry has a long tradition of re-labeling technologies (Bannister, 2009) and politicians all too often display a cavalier attitude to terminology. The result of all of this is a considerable elasticity in the use of language which handicaps discussion and can be a significant source of confusion.

This blurring of e-governance and e-government is particularly unfortunate because, as will be argued in this article, e-governance needs to be a distinct field of study. To justify the claim that e-governance is a separate field worthy of study in its own right it is necessary to establish three clear differentiations. The first, and most important, of these is between e-government and e-governance and to do this, it is necessary first to be clear on the difference between government and governance. Secondly it is necessary to differentiate between governance and e-governance. For e-governance to be a meaningful field of research and scholarship this latter difference must be categorical; e-governance cannot simply be governance with an electronic patina. Thirdly it is necessary to differentiate between e-governance and e-democracy as these are sometimes discussed as if they were more or less the same thing (see below). The focus of this article is on the first two of these differences. While the third will be considered briefly, a detailed discussion of this question is beyond the scope of this article. Specifically the question that this paper seeks to address is this: is it possible to define a separate field called e-governance and if so what makes it distinct from the other three fields depicted in figure 1?

The structure of the remainder of this article is as follows. First the problem of defining governance and the absence of an agreed definition of governance will be discussed. Next the relationship between governance and government will be considered. The problem of defining e-governance will then be examined and a proposed approach to the definition of governance and thus e-governance will be proposed. Using this framework, the impact of technology on public governance will be explored using a

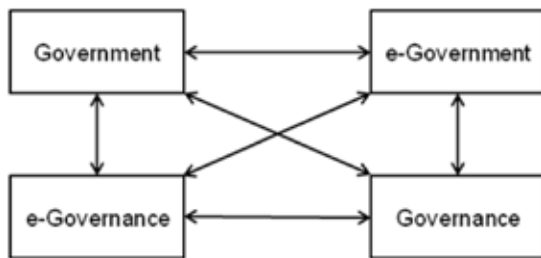


Figure 1: Four fields of study

number of examples. Finally some possible future developments in e-governance are discussed.

## DEFINING GOVERNANCE

The first step in defining e-governance is to define governance. ‘Governance’ is a problematic term; it is hardly an exaggeration to describe the use of the word as close to anarchical, the literature suggesting that definitions of governance, if not actually incompatible, are often a long way apart. Rhodes (1997, p. 15), for example, observes that: “[governance] has too many meanings to be useful”, whilst Peterson (2004, p. 8) notes that the rich vocabulary emerging from the literature on governance “... is like a terminological jungle in which any newcomer plants a seed”. Jordan et al (2005, p. 1) comment that “... there is no universally accepted definition of governance”. They cite several lists of definitions including five by Hirst (2000), six by Rhodes (1996) and nine by van Kersbergen and van Waarden (2004) although in the latter case it would be more accurate to describe these as approaches rather than definitions.

In order to illustrate the variety of definitions in use, a number of public sources which might be expected to offer a good definition of governance were first examined. These included The World Bank, the United Nations Educational Scientific and Cultural Organization (UNESCO), the United Nations Public Administration Network (UNPAN), the International Institute for Administrative Sciences (IIAS) and several national government sites. Secondly, using Google Scholar, approximately 20 papers containing definitions of governance were identified and examined. This process was continued until a sufficient variety of definitions was obtained to demonstrate the absence of clarity and consensus. The following is a selection of some of the definitions of governance found:

- “The exercise of political authority and the use of institutional resources to manage society’s problems and affairs.” (The World Bank, 1991);
- “The system and manner of providing authority and control” (Integrated Justice Information Systems Glossary, 2009);
- “The traditions and institutions by which authority in a country is exercised” (The World Bank, 2007);

- “[Governance is] the exercise of economic, political and administrative authority to manage a country’s affairs at all levels. It comprises the mechanisms, processes and institutions through which citizens and groups articulate their interests, exercise their legal rights, meet their obligations and mediate their differences” (UNPAN, 2011);
- “Governance is about how local public bodies and partnerships ensure that they are doing the right things, in the right way, for the right people in a timely inclusive, open, honest and accountable manner. It comprises the systems and processes for the direction and control of local authorities through which they account to, engage with and lead their communities” (Cadbury Committee, 1992);
- “. . . the procedures associated with the decision making, performance and control of organisations, with providing structures to give overall direction to the organisation and to satisfy expectations of accountability to those outside it” (Hodges et al., 1996);
- “The ways in which desired forms of behaviour are motivated and incentivized” (Peppard 2009);
- [Extract] “The processes by which governments are chosen, monitored, and changed.” (Asian Development Bank Institute, 2011);
- The International Institute of Administrative Sciences (IIAS) (1996) proposes a lengthy definition which includes:
  - “Governance refers to the process whereby elements in society wield power and authority, and influence and enact policies and decisions concerning public life, and economic and social development.
  - Governance is a broader notion than government, whose principal elements include the constitution, legislature, executive and judiciary. Governance involves interaction between these formal institutions and those of civil society.
  - Governance has no automatic normative connotation. However, typical criteria for assessing governance in a particular context might include the degree of legitimacy, representativeness, popular accountability and efficiency with which public affairs are conducted.”

The above definitions (and others not cited) differ considerably. In attempt to address this problem of definitional heterogeneity, Bovaird and Löffler (2002) put forward the suggestion that amongst definitions of governance there are some common elements. These include:

- An acceptance that in modern public governance there are many stakeholders other than governments;
- That governance deals both with the rules, formal and informal, that govern society and with the processes of negotiation whereby these rules are interpreted and modified;

- That there are different forms of governance from markets to hierarchies and that different mechanisms are appropriate in different circumstances.

As a consequence, in order to avoid conceptual confusion, any book, article or paper on governance - and there is a large number of these - should start by stating clearly the definition of governance it proposes to use. The shape of the subsequent discussion or argument will be in large part determined by this choice (or in some cases its absence). This article is no exception.

### **GOVERNANCE: A WORKING DEFINITION**

One of the problems with definitions of governance, reflected in the examples cited above, is that they sometimes confound the concepts of governance and good governance. Definitions may be normative (e.g. the definition used by the Welsh National Assembly (2011)), structural (as in the cited definition in the Integrated Justice Information Systems Glossary) or both (as in the cited definition from the Cadbury Commission).

To provide a foundation on which to build a definition of e-governance, a definition of governance is proposed which separates governance into structural and normative components. This approach is somewhat similar to the division between empirical governance and normative governance discussed by Jordan (2008) and has some parallels with the distinction between definitions of governance and definitions of 'good' governance discussed by Löffler (2003). The IIAS definition of governance states that governance has no automatic normative connotation though it implies that most definitions are normative anyway. Governance is often seen as being about things such as accountability and transparency which are normative by definition as both imply the need for scrutiny and scrutiny is only necessary where there are desired forms of behavior that need to be policed. The approach proposed here is to separate out the structural and normative components of governance. *Structural governance* is defined to be the 'how' of government. It encompasses things such as processes, structures, lines of authority, laws, regulations, stakeholders, forms of communication and responsibilities – the mechanisms by which power is exercised, decisions made, policy is created or changed and its implementation achieved. *Normative governance* is the set of value-related features of structural governance including transparency, accountability, integrity, honesty, impartiality, efficiency and so on that governance is desired to enable, to possess or to deliver. Structural governance may be designed to support or achieve normative aims, but in itself it is about how something is done, not about whether or not the way it is done is efficient (or honest or fair). In summary, normative governance qualifies structural governance and structural governance may be, but does not have to be, designed to deliver or support norms.

This definition of structural is neutral in the sense that it is neither restricted to public administration nor to democracies. Nor does the 'how' of any process necessarily embed a norm. A process for (say) deciding on a where to locate a new incinerator could

be inefficient, unaccountable and opaque, but it is still a form of structural governance. Fear of arbitrary arrest may not be an attractive form of governance, but it too is still a form of structural governance. The concept of value-related or normative governance reflects the principles of the underlying political system and its public values and the latter may differ from polity to polity. Almost invariably structures will be decided with norms in mind, but the critical point is that they do not have to meet a normative concept of 'good' governance.

## **GOVERNMENT AND GOVERNANCE**

The second necessary step in the process of defining e-governance is to draw a distinction between government and governance. If they are considered to be the same thing it follows that there will be little difference between their electronic equivalents. While making such a distinction is not helped by the variety of definitions of governance, the question "*What is the difference?*" can be asked in the abstract. A good answer to this question is provided by Löffler (2003) who cites Pierre and Peters (2002) as asking "*Does government still matter?*" and responds that this question is misguided because it misses the point. Instead, she suggests, the question should be "*When does government matter?*" Löffler points out that in the modern networked state, public governance can take many forms which may or may not involve the government itself. Governance might come from within the community or be provided by the market. Kim et al., (2005) make a similar point saying that the understanding of governance as the act of governing has been replaced with a model of government as an actor in the process of governance. As far back as 1978 Scharpf argued that in certain contexts, governments are not even necessarily the central players in governance. In this context, the comment by Held et al., (1999, p. 447) that in modern societies "... effective power is shared, bartered and struggled over by diverse forces and agencies at national, regional and global levels" reflects the reality that governance is not even a matter internal to the state, but is affected by a range of external stakeholders and forces (the international bond markets is a good example of the latter). Another way of viewing the relationship between government and governance is to consider that, in many western countries at least, public administration has steadily migrated from the former to the latter under the influence of a number of policies including new public management, outsourcing, decentralization and agentification.

If, as this suggests, government is a subset or a component of governance within a given polity, this has implications for the impact of technology. If governance without the 'e-' comprises many stakeholders, the addition of ICT to the mix is likely to change further the group dynamics, the possibilities for interaction, the nature of communication, the balance of power between and possibly the number of stakeholders.

If, therefore, government is a player within a web of interrelationships and mechanisms that comprise governance, it follows that e-government is likely to be quite distinct from e-governance. With this idea in mind, the definition of e-governance will now be discussed.

## **DEFINING E-GOVERNANCE**

Just as there are many definitions of governance, there are many definitions of e-governance. Dawes' definition was cited in the opening section. This section considers several others. The fact that definitions of e-government do not always run parallel to the definitions of governance without the 'e-' adds to the conceptual confusion.

A similar approach to that used in searching for the definition of governance was used to search for definitions of e-governance. A Google search for 'e-governance' and 'definition' yielded a large number of results: 10.8 million for the web and nearly 5,000 on Google scholar. A specific search for 'definition of e-governance' yielded just under 11,000 hits on the general Web and just 50 hits on Google Scholar. Table 1 contains a selection of some of the definitions of e-governance in the literature drawn from this search. In Table 1, while a couple of definitions from public bodies (UNESCO and UNPAN) are included, the focus is on the range of definitions to be found in the academic literature.

As is the case with governance, it is clear that there is a wide variety of barely compatible definitions on offer. In the above table, e-governance is variously defined as:

- The use of ICT to support (inter alia) public services, democracy, the private sector, etc .;
- Technology mediated services;
- Something that includes e-government;
- A model of government;
- A commitment to technology;
- Functions that empower citizens;
- Internally focused use of ICT by government;
- About networks and relationships;
- Use of ICT to improve the quality services and governance;
- Something that enhances e-democracy;
- A technology-mediated relationship between citizen and state.

There are some shared threads here and, as in the approach proposed by Bovaird and Löffler, it is possible to draw out a number of points on which there is consensus, for example that e-governance involves technology. But from the point of view of scholarship and any attempt to create a clearly defined field of research, this profusion of definitions is untidy and unhelpful. Such a variety of interpretations does not provide the basis for a coherent field of scholarship.



Table 1: Selected Sample of Definitions of e-Governance

| Source/Author(s)  | Definition/Description   |
|---|--|
| Oakley (2010)   | A technology mediated service that facilitates a transformation in the relationship between government and citizen   |
| Pina <i>et al</i> (2006)  | Suggests that e-governance includes e-government (c.f. UNESCO 2011)  |
| Saxena (2005) following Bedi et al. (2001), Holmes (2001) and Newman (2004) | An information age model of governance.  |
| Riley (2001) cited by Saxena (2005)   | The commitment to utilize appropriate technology for a variety of ends including greater democracy and fair and efficient services.  |
| Palvia and Sharma (2007)  | Propose a framework for differentiating between e-government and e-governance. In their model, e-governance is concerned with internally focused use of ICT to manage organizational resources and administer policies and procedures; e-government is outward and citizen directed. |
| Sheridan and Riley (2010)   | <i>“ . . . deals with the whole spectrum of the relationship and networks within government regarding the usage and application of ICTs.”</i>  |
| Chen and Hsish (2009)   | The use of ICT to improve the quality of services and governance (c.f. UNESCO)   |
| Kolsaker and Lee-Kelley (2008), drawing on Heeks (2001) and Lenihan (2002)  | As an aspect of, if not actually synonymous with, e-democracy (see below).   |
| Marche and McNiven (2003, p75):   | <i>“ . . . a technology-mediated relationship between citizens and their governments from the perspective of potential electronic deliberation over civic communication, over policy evolution and in democratic expressions of citizen will.”</i>                                   |
| Prabhu (2004)   | A form of e-business in governance comprising of process and structures involved in deliverance of electronic service to the public, viz. citizens.  |
| Kettl (2002)  | The impact [from e-government interactions] on government, public service and citizens throughout the political process, policy development, program design and service delivery.  |
| UNPAN (2011)  | E-governance can be defined as the application of ICT tools in (1) the interaction between government and citizens and businesses, and (2) in internal government operations to simplify and improve democratic governance.  |
| UNESCO (2011)   | The public sector's use of Information and Communication Technologies with the aim of improving information and service delivery, encouraging citizen participation in the decision-making process and making government more accountable, transparent and effective.                |

The potential for semantic confusion between e-governance and e-democracy, mentioned in the opening section, can be seen in Marche and McNiven's (2003) definition, stated above. Marche and McNiven define e-governance as a relationship – a very different conceptualization from several of the other definitions listed. A number of the above definitions, notably that of Kolsaker and Lee, are closer to definitions of e-democracy than of e-governance. Nonetheless, Marche and McNiven's definition focuses attention on the fact that one view of e-governance is that it is essentially about e-democracy, particularly in terms of public consultation and its mechanisms. This unfortunately only serves to exacerbate the confusion that characterizes an already difficult definitional landscape. One possible solution to this problem is to start from the position that e-governance has the same relationship to e-democracy as governance has to democracy, i.e. it is in part, but not exclusively, about how e-democracy or democracy works. As noted above, a discussion of this question is beyond the scope of this article.

To avoid the problems in the above set of definitions, we propose a different definition of e-governance. e-Governance is the use of information and communication technologies (ICTs) in government in ways that either:

- (1) alter governance structures or processes in ways that are not feasible without ICT and/or
- (2) create new governance structures or processes that were heretofore not possible without ICT and/or
- (3) reify heretofore theoretical ideas or issues in normative governance.

The first two of these relate to structural governance; the third relates to normative governance. Some implications of this definition will now be briefly considered using examples.

### **STRUCTURAL E-GOVERNANCE**

One of the business fashions of the late 1980s and early to mid-1990s was business process re-engineering (BPR). Popularized by authors such as Hammer, Champy and Stanton (1993, 1995) as well as Davenport and Short (1990, 1993), BPR theory suggested, *inter alia*, that technology could eliminate and/or simplify processes, de-layer organizations and eliminate much of the intermediate processing typically done by middle and junior managers. BPR enjoyed a period of popularity in the public sector (MacIntosh, 2003; Scholl, 2005). Core to de-layering was the ability of technology to process and analyse information. Technology was in part the driver and in part the enabler of this change (Osborne and Gaebler, 1993). In parallel with this came new ideas about structures. Three of these, outsourcing, loosely coupled networks and supply chain management, were part of this same technology-enabled pattern of new organizational forms.

In parallel with BPR, ideas in business governance evolved with the concepts of hierarchical, market and intermediate governance (Barney, 1999). All of these ideas had public sector parallels. The ideas of de-layering and downsizing were features of new public management (Hood, 1991) and the idea of government as networks has been a common theme in the public administration literature for several years (Goldsmith and Eggers, 2004; Rhodes, 1997; Salimen, 2003). However the process of what Rhodes calls the ‘hollowing out’ of government was well underway long before the Internet came into widespread use. Modern governments encompass a vast array of institutions from the central ministries of state through regional and local government and agencies (over 800 of the latter in Ireland (Department of Finance, 2011) and a claim of over 5,500 in the UK by the early 1990s (Weir and Hall, 1994)). While technology has certainly facilitated some of these changes, there is no evidence that any changes in structure were technology-driven or that until relatively recently at least, technology *per se* enabled structures to be created that would not otherwise have been possible.

In parallel, new forms of e-democratic and consultative governance have emerged, particularly in local and municipal government as new structures and processes have been set up to take advantage of the possibilities for electronically-mediated consultation. Torres et al. (2008) discuss such developments in a number of European cities; there are numerous other examples around the world. It is not clear to what extent these changes will spread or even survive once the first flush of enthusiasm has passed. The jury is still out on this first phase of e-democracy (MacIntosh and Whyte, 2008).

In summary, while ICT enables or facilitates certain forms of structural change, to call this e-governance is often misleading as there is nothing fundamental about most of these changes that is technology dependent. There are forms of structural change, such as social networks, on-line communities, Web 2.0 initiatives and virtual worlds where genuinely new forms of governance that could legitimately be called e-governance are emerging and some of these are discussed below. But much e-government is not e-governance because it does not change the underlying model of governance.

To return to the opening paragraph, one way which may help to differentiate e-government from e-governance is to ask about e-processes in what essential manner are these new or at least different from their manual predecessors? The answer, in most cases, is that they are not. For example, Ireland now has a well-designed, easy to use on-line vehicle taxation system. Underneath, this is quite a complex system which integrates several hitherto unintegrated subsystems. But from a citizen and a governance perspective the essence of the process remains unchanged. The same documents are required, only now the state can obtain these electronically without the citizen having to provide them in physical form. The same processes take place. No new services are offered nor are any new flexibilities or features provided. The law has not been changed. The stakeholders remain the same. Whilst some might claim that this is a form of e-governance, it is

conceptually no different from the old non-electronic version; the cow path has been paved, and very effectively, but nothing fundamental in the process *per se* has been altered. This system may, therefore, accurately be described as e-government, but to describe it as e-governance is to imply that something in governance has altered which is not the case.

The problem of e-governance and process can be further illustrated by considering in some detail a common example of a process: applying for planning permission. This will be done using three scenarios based on the Irish planning system: as it was twenty years ago, as it is today and as it might be in (say) twenty years from now. The following description does not cover every aspect of this process, but encompasses all of the principal steps.

**As it was.** In Ireland, twenty years ago, a citizen who wished to put up a building or modify an existing one applied to his or her local authority for permission to do so. To do this, she had to obtain a form, complete it and submit it along with required supporting documentation (such as architect's drawings and statements of regulatory compliance) and the application fee to the local authority's planning department. She was also legally required to put a notice of the application in a national newspaper and arrange for the display of a publicly visible copy of the application notice at the property.

There followed a five-week period during which other citizens (or organizations including the state) could make observations about, or lodge objections to, the application. Thus, any citizen could go to the planning department of the local authority, ask to see the file of all current planning applications and inspect all of the documentation provided with any application. Objections had to be delivered by hand to the planning office and a paper receipt was issued. At the end of the five weeks, the professional planners would review the application and comments/objections (if any) in the light of current regulations and planning guidelines. Based on any submissions they received, the council's planning officers would make a decision and either reject the application or forward it (possibly with some amendments or conditions) to the Council, i.e. the politicians, for approval. The planners were required to state the reasons for their decisions. Approval was normally automatic, but the Council had the right to alter or overrule the planners' decision or advice. Objectors and applicants could, and frequently did, lobby councilors directly to get them to reject or deviate from the planners' recommendations – a practice which often gave rise to accusations of corruption and/or favoritism. Once a decision was ratified, it was communicated to both the applicant and objectors (if any). If either the applicant or any objector disagreed with the decision, they could make an appeal to the Planning Board. At this point, interested parties could make certain additional submissions, but they were not allowed to change either the basis of the application or the nature of the objection(s). The planning board is an unelected, but independent, government appointed body and has its own planning advisors. The board would, in due course, issue

a final decision. While this decision could in theory be appealed to the courts, in practice this was the end of the process.

Structurally, from a government perspective, there are three/four state organizations/groups involved:

- The local authority;
- The planning department;
- The Council;
- The Appeals Board.
- There are then several citizen stakeholders involved including:
  - The applicant;
  - The objectors;
  - The builder;
  - The architects;
  - The staff in the planning department;
  - The councilors and
  - The wider citizenry.

There is a clear process for which it is worth setting out the key steps:

1. The applicant must prepare and complete the necessary documentation;
2. The applicant must inform the planners and the community about his application;
3. The planners must make all relevant information available to all interested citizens;
4. Interested parties can express their views to the planners and object if they wish;
5. The planners are required to take account of all views submitted as well as the law and planning guidelines;
6. The planning professionals make a decision and recommendation and must make public the rationale for their decision;
7. The Council approves, modifies or rejects this recommendation;
8. There is an appeal process to an independent authority;
9. Only those previously engaged with this application can participate in the appeals process;
10. The appeals body makes a binding decision.

The above is a good example of what is meant by structural governance, i.e. the structures and processes by which a procedure is carried out. Note that the above processes are designed to embed norms of transparency and fairness.

**As it is now.** The introduction of ICT to this process has brought a number of changes to this process, but all of them fairly minor. Information about regulations is now available on-line and forms can be downloaded. Certain limited classes of planning application can now be made on-line. More importantly, all current applications can be viewed and searched on-line. For some large public buildings, simulated pictures and videos of

proposed structures are available on-line. The question is: is this e-governance? Using the definition proposed in this article, the answer to this question is 'no' for the simple reason that nothing in the above analysis of stakeholders or process has been altered by putting parts of the process on-line. No new stakeholders have been introduced; no existing stakeholder removed from the structure. No new processes have been introduced nor have any processes been eliminated. What, then, would it take to change the nature of governance in the planning process?

**As it might be.** To see how this might happen, suppose that central government were to decide that the local planning system is too erratic and/or corrupt. Decisions are not consistent, councilors are being bribed and planners subjected to political pressures. The government therefore decides that the system will be completely rule driven. Such a process can then be automated and a computer system is developed to decide on all planning matters. This is a change of governance. Planners and councilors have now been removed from the process (applicants and objectors remain). In this instance, the term e-governance would be appropriate as a large part of the process of governance is now automated and decision making has been taken out of the hands of the humans and encoded. This is a material change in governance and this can therefore be said to be a form of e-governance. A number of stakeholders has been eliminated and the ability to bend or adjust the rules (except by hacking the computer system) has been lost. In a sense, the computer has become an integral part of the structure and process rather than just a tool which makes the process more convenient.

One cannot, of course, generalize from a single case or even two cases, but the above discussion provides an illustration of the distinction between government and governance. Government is about 'doing' and ICT can often simplify and improve this. Governance is about the abstract structure of what is happening and changing this is quite a different matter. There have been, and continue to be enormous changes in processes brought about by deployment of ICT that are *e-governmental* in nature. As with structure, there is only limited evidence so far of changes that (to coin a phrase) are *e-gubernatorial* in nature. This is not to say that there are not many possibilities, only that most polities are in the early stages of exploring these.

## **NORMATIVE E-GOVERNANCE**

The IIAS definition of e-government suggests that while the concept of governance does not necessarily have to have a normative connotation, it generally does so in practice and that this was not unreasonable. The idea of 'good' government is a powerful one (Grindle, 2010). The history of government and public administration contains numerous examples of failures of public governance (Bovens et al., 2001; Stoker, 1998). In recent years, major financial crises in the US and in a number of countries in the European Union (including Ireland) are in large part failures of governance. A common form of

failure of public governance is a failure to comply with or meet a norm, which in turn is generally, though not necessarily, a failure of structural governance. As with structural governance, the question arises as to whether ICT changes the nature of normative governance in any fundamental way?

Pemberton (1998) suggests that ICT *per se* does not introduce any new ethical questions in government. In a similar vein it is not obvious that ICT introduces any new norms into public governance. However ICT does affect existing norms in a number of ways. One aspect of normative governance is potentially affected is by the emergence of a digital divide. Norms that might be thus affected include that governance should be fair or deliver equality of access. A second group comprises norms that are enabled by technology, but in ways that do not change their essential nature. Examples of such norms are accountability and efficiency. The third potential impact is to reify some hitherto theoretical questions and in so doing change the norm itself. Examples of this include transparency and seamless service. The problems of the digital divide have been widely discussed (International Telecommunications Union, 2009). To illustrate the other two phenomena, a couple of examples will be considered, namely accountability and transparency.

Accountability is a cornerstone of good governance. Leaving aside for the present problems with the concept of accountability itself (for an interesting perspective on accountability, see Romzek and Dubnick (1998) and Dubnick and Romzek (1993), the evolution of networked governance has created major problems for accountability. In a hierarchy it is relatively straightforward (in theory at least) to establish accountability. In a network, accountability can become elusive as there may be no one place with overall or ultimate responsibility for what is happening (Newman, 2004). But while ICT can facilitate accountability in a variety of ways the ICT can change the nature of accountability is not obvious. To illustrate why consider the following hypothetical case.

In Ireland, there is a current policy debate about whether young Muslim women should be allowed to wear headscarves in second level (high) schools. At the time of writing, the Irish Ministry of Education and Skills has no policy on this matter; the decision is left to individual schools. There is growing pressure from school principals to have a single, national policy. Let us suppose that the minister asks a civil servant to make a policy recommendation on this matter. The civil servant does some research into the historical and religious background and into practice elsewhere. He considers the social consequences of various options, meets with representatives of the Islamic community, schools, teachers' unions, parents bodies and other interested parties. He then compiles a report in which he recommends a policy of secularization, i.e. that no religious symbols of any sort should be worn in schools. This policy, he argues, is neutral and does not discriminate against any religion. It is also simple and unambiguous. The minister accepts this advice and proposes legislation to the parliament where it leads to a heated debate, not least because many Irish schools are controlled by Christian denominations and this

would mean banning the wearing of crucifixes. A subcommittee of parliament is established to consider the proposed legislation in depth. Should the civil servant be required to come before this committee and justify his recommendation?

Consider now the factors involved in this question of whether the civil servant should face the committee (the accountability rights and wrongs of this are not relevant to this discussion). In approximate order of importance these are:

- The law;
- Due process;
- Politics;
- Power;
- Individual psychology;
- Organisational psychology;
- Mechanics.

The mechanics, or how the civil servant accounts for his actions, may or may not involve ICT. Its primary impact in this instance may, perhaps, be to make the proceedings of the committee more widely available through broadcasting or over the Internet or possibly to make documentation more readily accessible to the committee. However ICT *per se* has virtually no bearing on the fundamental question of whether the civil servant should appear. Accountability is essentially a human phenomenon, people being answerable to other people, be they one's superior, the minister or the electorate. It is hard to see at a conceptual level what role technology might play in accountability other than the ironic one of being something to blame when things go wrong.

However, ICT can change the nature of a norm and when this happens, it makes sense to refer to this as genuine e-governance. A good example of this is the impact of ICT on transparency. In a book they edited a few years ago, Hood and Heald (2006) chose the title: "*Transparency: The key to better governance?*" Perhaps the area where ICT in its broadest sense has had, or is expected to have, the most impact on normative governance is in its impact on transparency. Here it is important to distinguish between the capability of technology and its actual use. One of the earliest forms of technology-enabled transparency was the broadcasting of parliaments and parliamentary committees. This has been available in some countries for over three decades at this stage. More recent innovations include making internal government documents available online at either free or via Freedom of Information act requests.

Today it is feasible for a citizen to follow what is happening in the course of a public administrative process or procedure. Governments and administrative machinery can be complicated, but many scholars and others have suggested that the technology could be used to enable the citizen to see where they are in the system so to speak. Thus the farmer applying for a support grant or a business seeking a license to sell alcohol should be able to track where that application is in the process. One country that has done this is South Korea,



which implemented a system called OPEN in 2003 (Yong Hyo Cho and Choi, 2004). With this system, a citizen can track the progress of an application or a service request through the Korean administrative system. The OPEN system raises several questions that are discussed by Meijer (2009). Amongst these are the ability of the system to show all of the relevant information, the ability of the citizen to understand what is going on (most citizens are not expert in government processes) and the impact of having their every action open to public scrutiny on the behavior of civil servants. The OPEN system is a clear example of meeting the demands of ICT enabling normative e-governance not least because without technology, such a form of transparency is not possible.

Transparency and the provision of information is a significant development in governance in that it creates new possibilities for transferring governance to the community by information rather than by regulation. The problem is that such transparency is not always good and too much transparency could be actively harmful to citizens or the state (Bannister and Connolly, 2011). As O'Neill (2002) points out, transparency is not an unmitigated good. An example of using technology-enabled transparency for a questionable form of e-governance is in the US where information about sex offenders including their photographs and where they live are put on government websites in many states. The purpose of this is notionally to inform parents when sex offenders may be in their area. However it is also an invitation to vigilantes to take the law into their own hands. Technology, in this case, is forcing a re-think of the norm itself. Can we have too much transparency and if so how much is enough? Similar questions arise with efficiency and integration where technology raises doubts about long accepted norms in governance. Thus a further way of identifying something as e-governance is where it changes the meaning, understanding, importance or perception of a norm in governance.

## **NEW FORMS OF GOVERNANCE**

Apart from in a few areas like transparency, could genuinely new forms of governance emerge from technology? Two possibilities relate to forms of virtual government (Bekkers, 2003) and e-Government 2.0. Both of these will be briefly considered.

### **Virtual Government**

One of the most misused terms in information systems is 'virtual organization'. By this is usually meant an organization that does not occupy a physical office or building, but where real people communicate electronically from wherever they are. Such an organization is not virtual in the proper sense of that term. However technology may now, be taking us in the direction of the genuinely virtual organization, i.e. one that exists only in the memory and circuitry of machines or the cloud. It is possible to envisage much government activity being transferred to machines. One example of how this might happen

(planning) has already been outlined. Why use expensive policemen to operate speed traps or check that cars are taxed when cameras and computers can do this automatically? Why not measure school attendance with RFID scanners or eliminate 'signing on' to claim unemployment benefit by using biosecurity technology? Numerous day-to-day tasks of government can be automated. But automated data gathering is only the tip of the iceberg. When people think of artificial intelligence (AI) they often think in terms of popular representations in books or film such as Sonny in *I Robot*, David in Steven Spielberg's film *AI* or HAL in *2001 – A Space Odyssey*. While such thinking robots may still be some distance away, lower forms of AI such as voice and character recognition are spreading rapidly. There are systems in prototype today which can monitor a person's health as they walk around their house (Baker, 2008).

Developments in artificial intelligence could have even more profound long term consequences. At certain low levels, machines are now starting to be deployed for activities that were heretofore done by humans. This technology is already in extensive use in the private sector for such applications as directory enquiries, order entry, help desks and airline booking. With contemporary technology, many low-level government activities which require a verbal exchange and which are currently performed by humans can now be carried out by machines. It is not a large step to a world where such functions include decision-making. The rationale for electronic governance of this type is powerful, especially where the three Es of efficiency, economy and effectiveness are dominant values.

The potential impacts of such developments are as yet largely unexplored. In such a world, e-governance would take on a substantive and quite distinct meaning. e-Governance would encompass not only the use of advanced technologies for public and social management and control, but for consultation and participation. The problem with much democracy is being heard. Politicians can either listen to one constituent at a time or read the opinion polls. Technology is currently being used in innovative forms of public consultation, but current tools rapidly run into logistical limitations as the more evangelical advocates of direct democracy have discovered. In the future, there may be options for use of technology to overcome at least some of these limitations, but in so doing, there is a risk of e-democracy degenerating into machines talking to other machines. Over the next few decades and probably well beyond, technology is going to present politics and societies with enormous and unfamiliar challenges of governance. e-Governance will be about how politics address these challenges.

## **e-Government 2.0 and beyond**

e-Government 2.0 envisages new forms of governance that are bottom up. A good account of this vision is provided by Millard (2010) who describes the use of tools such as social networking, blogs, wikis, mashups and so on to create not only new forms of

governance, but new services generated from within communities themselves rather than being provided by the state. This vision has all the usual good words attached: open, participative, engaging, empowering, personalized, etc., and there are practical examples in existence. A well-known example is Fixmystreet.com. Using this, citizens can report problems in the urban landscape to their local authority. They can take a picture of a broken traffic light or cracked pavement and mail these to the council and put it up on a web site, which shows when it was reported and how long it is taking the authorities to repair it. While there are questions as to how effective this, it is a genuine form of e-governance because it uses technology to change the way that this processes occurs in a way that would be impractical with ICT. This is true both in terms of reporting, pressuring the authority to respond, making the authority visibly accountable and engaging potentially all citizens in the maintenance of the fabric of their community. Millard sees use of mobile and mashup technologies to enable citizens to re-design the parks they walk in or report where an accident has occurred. He calls this location-based participation. Such activities, if realized (and there are questions here – people may have different views on park redesign!) would also represent a new form of governance, a genuine form of citizen empowerment not possible before the mobile/Internet age. Such an all-enveloping form of “everyday e-government” can be considered as another form of genuine e-governance.

Finally it can be argued that social networking is creating new forms of governance. It is perhaps a little early to see where this technology will take governance, but the capacity for localized decision making or community action based on these technologies is there. If and when this evolved, this too will constitute a form of e-governance.

## **CONCLUSION**

Clarity in terminology is important and not just to academics. It is important for politicians and others engaged in the development of public policy on the use of ICT in government. Changes in government arising from ICT have different implications from changes in governance arising from ICT. If the term e-governance is to be useful, it is important both to differentiate it from e-government and to distinguish it from both traditional governance and from e-democracy. There has always been a modest part of the e-government literature that has been concerned with the impact of ICT on the ‘how’ of government itself. One path would be to regard e-governance as a synonym for this or for certain aspects of e-democracy. However a more useful approach is to acknowledge that there are aspects of the use of technology in government that really do create new governance forms and alter or raise new questions about norms themselves. The difficulty is the ambivalence (or more accurately multivalence) of the meaning(s) of e-governance. Earlier in this paper Rhodes’ observation that ‘governance’ is so variously defined as to be more or less useless as a word was cited. The problem with e-governance is not quite identical, but the effect is

much the same. Many scholars and commentators do not even bother with a definition and the result is a type of semantic anarchy that only leads to misunderstanding.

This paper offers a different definition of e-governance grounded in a working definition of governance which divides it into structural and normative components. Based on these it is argued that:

- There is little evidence to date that ICT has driven significant structural change;
- There is good evidence that ICT has enabled and/or contributed to various forms of structural change. To what extent these changes would have or have not occurred without ICT remains an interesting, but still open, question;
- There is limited evidence to date that ICT has transformed many existing processes other than in the sense of improving their efficiency and/or ease of use;
- In terms of new forms of governance, some processes have been transformed and some new ICT enabled processes have emerged. How durable some of the latter will prove to be remains to be seen;
- There are areas of normative governance where there is no reason to believe that ICT will have anything other than a marginal or an indirect impact.
- There are other areas of normative e-governance where ICT has had and is likely to have an important impact.

A simple heuristic for determining whether something is e-governance is to ask the question: does the presence of ICT result in any material change in structures, stakeholders, data, processes or norms? If the answer is 'no', then to describe it as e-governance is not meaningful. This article has defined e-governance as the use of ICT in government in ways that lead to genuinely different structures or processes a consequence of which may be the greater effectuation of or changes in norms and public values. Such emerging developments in the use of ICT in government and social control raise genuinely new problems or reify hitherto theoretical problems in governance.

It is the last point in the preceding paragraph that is the most interesting and is likely to provide the greatest challenge to society in the medium term. We are entering the age of ubiquitous and cloud computing and while artificial intelligence is too broad a church to generalize about easily, the automation of tasks requiring mental as opposed to merely physical skill is steadily progressing. In this context, it is important to have a clear understanding of what is meant by e-governance and what new challenges and opportunities it creates. Differentiating e-governance from e-government will help in focusing future research into the different implications of these two developments for citizens and society. Currently there is a lack of such clarity which only serves to distract attention from matters which may be of great importance for future generations and societies. This paper has attempted to highlight some of these issues, much more research and thought is needed.

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