

# The fourth power: ICT and the role of the administrative state in protecting democracy

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**Abstract.** Western liberal capitalist democracy is in trouble. In many democratic countries, for the first time since the second world war, nationalism, populism and the strong leader who can sort out the problems have re-emerged in force. Some democracies seem to be reverting to forms of autocracy which many thought they had left behind.

ICT is a contributory factor to this trend. Contrary to the techno-optimism of the 1990s and early 2000s which forecast the emergence of more and stronger democracy underpinned by technological developments, technology increasingly appears as more of a threat to, rather than a support of, democracy. Technology-enabled problems include fake news, hacking of e-mail servers, hate sites, Twitter storms and filter bubbles into which different political groups retreat to reinforce their prejudices.

This paper proposes a rethink of how technology can be deployed in defence of democracy and democratic values. We argue that it has long been recognised that the administrative state and its deep bureaucratic structures provide a degree of democratic resilience and that this resilience can be enhanced by appropriate use of ICT. We propose that prioritising ICT interoperability rather than ICT integration in public administration can enhance the separation of powers in the modern state and strengthen the ability of a polity to resist authoritarianism. This is not proposed as a solution to all of the problems facing contemporary democracy, but it can nonetheless contribute towards countering the increasingly negative impact of technology on politics.

We argue that there is an urgent need to move beyond what has often been wishful thinking about e-government and e-democracy as transformative tools and consider how technology might be used for conserving and protecting the best of what we have already have.

Keywords: Democracy, e-democracy, the administrative state, bureaucracy, interoperability, integration

## 1. Introduction

### 1.1. Time for a re-think?

This paper presents an argument that runs contrary to much thinking about e-government and e-democracy over recent decades. We argue that liberal democracy is in danger and that this danger has been and continues to be amplified, rather than moderated, by the ways in which information and communications technology (ICT) is exploited in the political sphere. Nonetheless, we argue that ICT can also be used in ways which enhance the robustness of the democratic state, but that this requires a re-evaluation of certain key aspects of the approach to its use in public administration. The structure of this argument is in three steps as follows.

First, we argue that the impact of ICT on democracy in the past two decades has, if anything, been negative. e-Democracy, despite much hyperbole, has failed to deliver. The concepts underlying e-democracy

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are admirable, but the reality has been disappointing. Instead of cyberspace providing an electronic agora for widespread informed discussion and deliberation, it has evolved, *inter alia*, into an archipelago of political safe spaces which serve to satisfy confirmation bias and it has allowed many extreme, even vile, forms of political participation and comment, hitherto at the margins of politics, to have much greater impact than their degree of public support warrants. We discuss both of these phenomena, and other problems for democracy caused by ICT, in sections two and three.

Secondly, in section four, we argue that a strong, politically neutral, administrative system in which power is widely distributed provides what might be called a ‘fourth power’ in addition to parliament, the judiciary and the media. Bureaucracies can place barriers in the way of would be authoritarian leaders. A better term for this would be the ‘deep state’, but unfortunately this term has political overtones of subversion of the state and is so often associated with conspiracy theories (e.g. Grandin, 2017; Jenkins, 2018) that its use is not helpful. We will therefore confine ourselves to the terms (deep) administrative state and bureaucracy.

Thirdly, in section five, we present an alternative approach to the use of ICT in public administration, one that favours interoperability over integration and the deliberate use, and in some cases even reintroduction, of silos. To do this, we need first to draw a clear distinction between interoperability and integration. We will do this by drawing on examples from practice and discussing how such an approach might be made to work on a local/national scale in the same way that it is currently deployed intra polity.

We conclude with a summary of the rationale for this approach and a call for a change of mind-set about key aspects of how ICT is used in public administration.

We start with a brief background and motivation for this proposal.

## 1.2. Background: Interesting times

Just prior to the fall of the Berlin wall in 1989, Francis Fukuyama wrote an essay in the current affairs journal *The National Interest* entitled “*The End of History*” (Fukuyama, 1989). Three years later, after the wall had fallen, he expanded this into a book entitled “*The End of History and the Last Man*” (Fukuyama, 1992). Fukuyama was not implying that history was about to come to a halt. His argument was teleological. Liberal, capitalist democracy was an end or outcome towards which history has been moving and represented the ultimate development in human social, economic and political evolution.

Two decades later Fukuyama’s vision was looking somewhat premature. Between them, the two neos – conservatism and liberalism – had shown that the trend towards liberal, capitalist democracy was not a one-way street. By 2008 capitalism was in trouble with its deregulated, debt fuelled markets crashing (Reavis, 2012). Globalisation, while reducing international levels of inequality, was fuelling levels of domestic inequality not seen since the gilded age in the late 19<sup>th</sup> century (Bartels, 2016). By 2016, western liberal democracy too was perceived by many to be in difficulties. Nationalism, populism and the strong leader who can sort out all of the problems<sup>1</sup> emerged in several democratic countries including a number within the European Union (EU). Optimism turned to angst.

It is important, in setting this scene, to steer a course between the Scylla and Charybdis of alarmism and complacency about global developments since the turn of the century. There is an ample supply of both attitudes in contemporary discourse. For the alarmist, recent events provide plenty of evidence that democracy is in decline. American democracy has long had serious problems including extreme

<sup>1</sup>Exemplified in Donald Trump’s various claims during his election campaign that only he could resolve problems such as US healthcare.

partisanship, political gridlock, voter suppression, widespread (though possibly legal) gerrymandering,<sup>2</sup> a politicised Supreme Court and an electoral college system that can result in a candidate who loses the popular vote by a substantial margin still being elected president. All of this on top of a highly unrepresentative Senate which gives two members to all states irrespective of population. UK democracy has long been distorted by its first past the post voting system (of which some British commentators seem to be irrationally proud), but the ill-conceived Brexit referendum, the widespread dishonesty of the Leave campaign in particular, the ‘confidence and supply’ arrangements that followed the 2017 election and the aftermath of all of these has raised troubling questions and a degree of national soul-searching, as well as confusion, about the quality and nature of democracy in that state.<sup>3</sup>

Bad as these are, there are more worrying developments elsewhere. There are, at the time of writing, several democratic states which are sliding towards autocracy with suppression of the free press, interference in, or politicisation of, the courts, in some cases large scale arbitrary arrests, dismissal of public servants and academics and the creation of a cult around the leader. Ghosts from the past, including anti-Semitism, have re-emerged. Amongst the more disturbing contemporary examples are Hungary and Turkey, but other states where democracy is currently in retreat or has been in retreat for some time include Poland, the Philippines, Venezuela and Russia. How developments in these countries play out remains to be seen. In a few cases, like Greece, and in the 2017 UK election, there has been a revival of left wing politics, but mostly the surge in support has been for the right. Democracies have collapsed in the past in countries like Italy, Germany, Spain, Portugal and Chile.

It is equally important not to overstate the case. Democracy is never perfect, but there remains a large number of robust democracies around the world including most of the countries in the EU (EIU, 2017). Many of the problems in the USA are far from recent developments and some go back to the framing of the constitution in the 18<sup>th</sup> century. In a number of other countries, including the Netherlands, Austria, France and Finland, what seemed to be a surge in right wing nationalism has receded (at least for now). Recent setbacks for the right in the Netherlands and France (and arguably Austria, though the direction of developments in that country are less clear) and the mellowing of parties like the True Finns (being in government has a sobering effect on many extreme parties) has led to a revival of optimism that the EU has turned a corner and that Brexit, like hanging, has concentrated the minds of the remaining states wonderfully. Like the pessimism that preceded it, this optimism is almost certainly overdone. In both cases, Tetlock’s (2005) findings about the accuracy of expert political judgement should always be borne mind.

## 2. The disappointments of e-democracy

New technologies are usually accompanied by much excitement and hyperbole about their practical use. In the 1950s, during the initial flush of enthusiasm about nuclear power, there was talk of ‘atomic’ aircraft, ‘atomic’ briefcases, ‘atomic’ vacuum cleaners, ‘atomic cars’<sup>4</sup> and even ‘atomic’ pens. Since the 1960s, each major advance in information and communications technology (ICT) has been accompanied by a similar overheating of the collective imagination. Few technologies have been greeted with as much

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<sup>2</sup>This question is, at the time of writing, scheduled for consideration by the US Supreme Court (De Vogue and Diaz, 2017).

<sup>3</sup>Illustrated by the statement by the BBC commentator John Humphreys that a second Brexit referendum in the UK would be “a subversion of the democratic process” (Boscotti, 2018).

<sup>4</sup>See, for example, <https://www.damninteresting.com/the-atomic-automobile/>.

hyperbole as the Internet and Social Networking. One manifestation of this has been in the field of e-democracy.

e-Democracy is an excellent example of techno-optimism. The potential of ICT to enhance and enrich or even enable democracy has been taken as a given by a large number of scholars and commentators. One of the first people to foresee the possibilities of a form of electronic democracy was Buckminster Fuller who, in 1940, long before the Internet age, first discussed the potential of telephony as a means of distributed voting. In 1962 Fuller envisaged the possibility of a two-way television system which would allow government to interact with citizens (Bastick, 2017). He coined the phrase “*electrified voting*” and forecast that such a system of distributed voting and decision making would make it difficult for an authoritarian government to seize control of the state (Fuller, 1963).

Fuller’s enthusiasm was a harbinger of things to come – much enthusiasm and optimism followed by not much by way of real, and certainly not radical, change. Throughout the 1960s, 1970s and 1980s the use of technology in politics expanded. Starting from the late 1950s in the USA, television played an increasingly important role, but in this era it was strictly a one-way form of electronic democracy (more recent types of media are discussed in the next section). Following the explosion in the availability of the Internet and the emergence into the public sphere of the Web in the 1990s, a new wave of hyperbole ensued. Technology was going to open the floodgates to a new democratic Nirvana. Concepts widely discussed over the next two decades included e-participation (Macintosh, 2004; Tambouris et al., 2007), e-consultation (Palvia and Sharma, 2007), e-voting (Kersting and Baldersheim, 2004), deliberative democracy (Buchstein, 1997), enablement of direct democracy (Becker, 2001), e-transparency (Bannister and Connolly, 2011) and e-empowerment (Tambouris, Liotas and Tarabanis, 2007). Several of the so-called e-government maturity models postulated a final ‘e-democratic’ stage (e.g., Moon, 2002; Siau and Long, 2005; Lee, 2010). Case studies of successful applications of ICT to democracy were published and cities and countries vied with each other to polish up their e-democratic credentials. Organisations such as *e-democracy.org* and *We the People (online)* were founded. Each new technology added a further layer of possibilities. At the height of the so-called Arab Spring many commentators and even some scholars saw social networking, mobile telephones and tablets as tools that could be used to counter autocracy and create a democratic revolution (Khondker, 2011; Aday et al., 2012; Howard and Hussain, 2013).

Unfortunately, e-democracy has so far been something of a let-down. Telephone voting never happened (except for things like the Eurovision song contest) and, apart from e-voting and localized e-consultation and e-engagement applications (of which there are many (see, for example, Coleman and Gotze, 2001; Dahlberg, 2001; Coleman and Norris, 2005)), the great transformation foreseen by many scholars and commentators has, to date, failed to materialise. Even e-voting, one of the most obvious applications of ICT, has been plagued with problems – both technical and political (Bishop and Wagner 2007; Bannister and Connolly, 2007; Lauer, 2004) and some countries, having introduced e-voting subsequently abandoned it (Oostveen, 2010). On-line voting, the subject of much discussion, has yet to take off with to date only one country (Estonia) using it in national elections on any scale and then only for part of the electorate (Alvarez et al., 2009), although it has been used at local level and for other types of remote voting, for example in Geneva (Chevallier et al., 2006). The Arab Spring proved short lived and soon fizzled out in most countries leaving only Tunisia<sup>5</sup> with anything positive to show from all of the disruption. People soon discovered that being armed with tablets and mobile phones was not much

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<sup>5</sup>For an interesting comment on this impact see: <http://macmillan.yale.edu/news/arab-world-better-five-years-after-arab-spring>.

of a defence against tanks and tear gas and it is arguable that countries like Egypt and Libya are now in far worse places than they were before.

The problem with e-democracy is that, similar to real world democracy, it requires motivation, time, commitment and persistence and in any society the Pareto principle applies: only a small part of the population have all of these things and only a subset of these will go on to be the activists who are willing to make the personal sacrifices necessary to engage fully in political life. There is also the brute fact that no amount of citizen-generated electronic noise will have quite the same political impact as a series of mass demonstrations held outside the prime minister's office or the parliament building or even on *Fox News*. Nor can the reach of the Internet substitute for large numbers of committed activists with, so to speak, boots on the ground or large contributions to campaign funds. In the 2004 American Democratic primaries, there was considerable enthusiasm about the use of the Internet and the Web by then Vermont Governor Howard Dean. Some hailed this as a new form of politics, but in the end, he withdrew and old fashioned methods of getting elected re-asserted themselves (Hindman, 2005).

Localised and focused e-democracy can be effective, but even here the results are mixed. A major problem is the fourth of the four qualities listed above – persistence. People have to be willing to stay in the game for long enough, years if necessary, to get results. In the early part of this century, Coleman (2004) carried out two pilot exercises in electronically supported deliberative democracy. One of these concerned policies related to domestic violence and included women with experience of domestic violence, public servants and politicians. One of the findings from this pilot was that it did not take long for the politicians to lose interest – they did not have the time for this level of detailed interaction. The civil servants hung in there a bit longer, but soon they too more or less disengaged leaving the women to discuss the issues amongst themselves. While the quality of the engagement was good and the process helped foster a sense of community amongst the women, the latter felt that the politicians were never truly committed. There is a simple logistical problem at the heart of this type of democracy: while technology facilitates communication and engagement, it cannot change the capacity of humans to engage with more than a modest number of people at the one time<sup>6</sup> and, the attention span of politicians tends to be short. In e-democracy, small may be beautiful (Bannister and Walsh, 2002), but big looks decidedly unwieldy, even unworkable. While ICT has delivered many enhancements to democracy such as on-line petitions, greater transparency (perhaps the most important impact), more effective public consultation and better communications generally, none of these amount to genuinely transformative changes. The basic modes and affordances of representative democracy still apply. Technology alone will not convert a representative democracy into a Swiss style direct democracy or an authoritarian state into a paragon of democratic freedom.

The problem with e-democracy is not with the concept, but with the grandiloquence of many of its proponents and the practicalities of real politics. Fuller's vision, like many of those that have followed him, turned out to be wrong. This has not put off the evangelists. Even now, some of those who recognise the problems still see a future, but one which is 'radically' different from the political world we live in at the moment. A good example is the 'beyond bureaucracy' movement (Paulin, 2013; 2014) which proposes ideas like self-service government, liquid democracy and other idealised (and sometimes vague) conceptualisations of a future ideal-world. With all due respect to these ideas and their authors, words are easy; implementation in the real world is an entirely different matter.

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<sup>6</sup>Dunbar's number (Dunbar, 2010) suggest that we can manage at most about 150 stable relationships.

### 3. Technology and politics: The dark side

If the failure of e-democracy to live up to the hype were the only problem, there would probably be not much about which to be concerned when it came to the consequences of developments in ICT for democracy. People might be disappointed, but life would go on and locally effective use of technology for e-democracy would continue. Unfortunately, contrary to Panglossian expectations of an ever greater and stronger democracy underpinned by developments in technology, technology increasingly appears to be more of a threat to, than a facilitator of, democracy. This is most visible in the media and in the alleged emergence of what has been called a 'post-truth' society.

The print media – going back to 17<sup>th</sup> century pamphleteers – has always been partisan. The same, however, has not always been true of electronic media, in part because space on the airwaves was for several decades both limited and controlled by government. Television has been used by politicians for over fifty years and the attack ad has become a staple of political campaigns in some countries. Nonetheless, in the days when there was a limited number of radio and in particular of television stations, coverage of news and politics by the stations themselves tended to be balanced. In some cases, this was a legal requirement, but it was also motivated by the need not to offend or drive away a large part of one's potential audience. Politically independent, licence funded mass media can still be found in some countries (e.g. in the UK and Ireland) and the three and a half hour long debates in the French national elections are (usually) good examples of genuine and passionate democratic engagement (not to mention being entertaining). But in other countries, in particular in the USA, fragmentation has led to an extraordinary degree of partisanship in the media with television and radio stations catering to specific groups (usually political, but it can also be to religious and other interest groups). Balance is, of course, in the eye of the beholder; even 'balanced' stations like *National Public Radio* and the *Public Broadcasting System* are seen by many as not being objective and neutral (Smith, 1981; Bercovivi, 2011).

The emergence of multi-channel cable, social networking and Web 2.0 technology made possible what came to be called 'narrowcasting' and allowed anybody with basic knowledge and minimal resources to publish anything they wanted on-line to a potential audience of millions. Technology enabled threats to democracy and the quality of public discourse include, but are by no means limited to, fake news, hacking of e-mail servers, trolling, flaming, hate sites, Twitter storms, filter bubbles, political firewalls, psychological manipulation and Wikileaks. Similarly, technology is being used by technology platform providers to track all searches and monitor email communications made via that platform (Macri, 2014). At the time of writing, major social networking companies such as Facebook and Google are struggling to cope with the ever-growing problem of false news and abusive behaviour (and other related) problems. In March 2018, the value of Facebook on the NASDAQ dropped by \$13 billion following revelation by the UK television station Channel 4 that Cambridge Analytica had used Facebook users' data without their consent.<sup>7</sup>

Perhaps the most high-profile problem as of 2018 is Twitter, which exemplifies much of what is wrong with contemporary e-democracy. Twitter is an electronic soap box that, at one level, seems eminently democratic in that it allows anybody with Internet access to express their views, but that at the same time debases democracy in two important ways. First, its 280-character (formerly 140) limit means that messages and debate are reduced to the level of the sound bite. Other media are forced to copy in order to compete for the attention of citizens with ever decreasing attention spans. Nuanced and insightful debate of complex social or economic issues is lost. Secondly it is unmoderated. Although extreme

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<sup>7</sup><http://www.trustedreviews.com/news/facebook-share-price-3431913>.

posts can be taken down, once they have been re-tweeted they are more or less impossible to eliminate from cyberspace.

Deliberately fake news (as opposed to inaccurate or sloppy reporting) is another problem. While politicians (notably current US president Donald Trump) like to attack so-called mainstream media outlets such as the *New York Times* or *CNN*, a far more serious problem is the ability of extreme groups and even countries to spread their views and false information rapidly and to a wide audience – occasionally even fooling higher quality publications into re-publishing false information. There are examples of this being done by groups and individuals purely for profit (Ohlheiser, 2016). Even where news is not actually false, it is increasingly highly selective (e.g. Ross, 2016). Fact checking organisations like *Politico* scramble to keep track of lies and false information. Unfortunately, once incorrect information gets into the public domain it can be extremely difficult if not impossible to counteract with factually correct information. A sobering example is the false link claimed by Andrew Wakefield between autism and the MMR vaccine (Eggerson, 2010; Poland, 2011) One consequence of this is that children die.<sup>8</sup> Yet, despite widespread educational campaigns, surveys show that a large number of people still believe that such a link exists (Frizell, 2015). A more recent example is a YouGov poll published in December 2017 which showed that 57% of US Republicans still believe that Barack Obama was born in Kenya.<sup>9</sup>

The substitution of opinion for news and the willingness of media outlets in some cases to broadcast what they know to be untrue has resulted in what Eli Pariser termed filter bubbles into which different political groups retreat to reinforce their prejudices and which feed self-reinforcement, cognitive dissonance, confirmation and other cognitive biases (Pariser, 2011). People have always turned to books, newspapers, television stations and commentators that express views that are similar to their own. If you are a Brexiteer you read the *Daily Mail* or the *Daily Telegraph*; if you are a Remainer you read the *Guardian* or the *Financial Times*. But technology has brought a whole new dimension to this phenomenon because the algorithms used by social media and other sites are designed to give us more of what we have looked at or asked for before. Look for a hotel in Milan on Trip Advisor or Trivago and you will be bombarded with adverts for hotels in Milan on Google or Facebook for weeks afterwards. When we are being offered a choice (as say on Amazon where, having bought a book, you get ‘*Readers who bought this book also bought...*’ type selling), we are at least aware that we are being offered more of the same. In their eagerness to sell us more, SNSs and even news sites start to send us more stories with the same slant and readers may not even be conscious of the bias or selectivity in the information with which they are being presented.

Three other ICT related problems for democracy have contributed to the problem. The first is the integration of ICT systems in public administration, something that can create risks for democracy. Information is power and centralised access to, and control over, data puts a powerful tool in the hands of a would be authoritarian (be they elected or not). The dangers are obvious (Gandy, 1989; Moore, 1997; Göbel, 2013). A sobering example, one which pre-dates the computer age, is the argument that the one of the reasons for the relatively low survival rates of Dutch Jews during the Holocaust was the efficiency of the Dutch citizen registration system (Blom, 1989 as cited in Croes, 2006 and Moore, 2003).<sup>10</sup> After 9/11 the Bush administration in the USA launched a so-called “*Total Information Awareness*”

<sup>8</sup>Over 89,000 children died of measles in 2016 according to the World Health Organisation. <http://www.who.int/mediacentre/factsheets/fs286/en/>.

<sup>9</sup><http://www.newsweek.com/trump-birther-obama-poll-republicans-kenya-744195>.

<sup>10</sup>This is a complex phenomenon for which several reasons, including the one cited, have been advanced. A good summary of these theories can be found in Croes.

programme whose objective was that the state should be able to track the behaviour of every individual down to the books that he or she borrowed from their local library (Whitaker, 2006; Cohen, 2010). Secondly, there is the problem of delayering within public administrations driven by ideas such as new public management (NPM) and entrepreneurial government. In any organisation, delayering must, by definition, result in greater concentrations of power. ICT enables a greater span of control. Finally, a more recent development, the increasing use of algorithms for taking humans out of the decision chain (O'Neil, 2017; Eubanks, 2018), is a two-edged sword: on the one hand it places technical obstacles in the way of anybody who wants to exercise control; on the other it removes humans who might resist inappropriate political behaviour.

Finally, there is the question of job security for public servants, a key plank in Weber's conception of bureaucracy (see below). The push for professionalization in the public sector is a relatively recent phenomenon with a benign motivation. A structured approach towards recruitment and promotion is necessary for development of a competent and efficient administrative service and to ensure that senior civil servants have the necessary capabilities and skills. One attempt to provide this structured approach involves the development of competency frameworks for professionalization of senior management. These frameworks typically encompass several competency requirements, such as evaluation of knowledge, skills and attitude. However, can be and have been misused and their introduction has been described as an "accessory" of political attempts to modify the public service (Hood and Lodge, 2004).

In summary, while the impact of technology on democracy is a mixed one it by no means evident that the long-term net impact of ICT on democracy will be benign. Not to put it too strongly, we cannot rely on conventional expectations of e-democracy to protect or strengthen democracy. Abstract theorising about a utopian future of a participative state and concepts like liquid democracy might make good material for academic seminars, but are not the stuff of real politics or real power. Instead, we need to look at for alternative approaches to the way we use ICT. To protect our democracy, we need something more practical and more aligned with what the German politician Willi Brandt called *Realpolitik*. We need to build democratic robustness into systems in ways that go with the grain of human behaviour rather than assume that human nature is about to undergo a global and sudden evolutionary change for the better. We need to get away from the end of history and to do that we need to use technology in a different way. Fortunately, there is another line of defence and that resides in another locus of power, the deep administrative state and it is to this that we now turn.

#### **4. The bureaucratic state and the protection of democracy**

The idea that the administrative state/bureaucracy provides a degree of protection against political overreach is not new. Probably the most influential articulation of this role is that provided by Weber in his famous essay on bureaucracy (Weber, 1946, original 1922). Bureaucracy has been the subject of criticism, not to say attack, for many years and is seen by many as made up of unelected and unaccountable public servants who wield considerable power, power that is often hidden and exercised far from the public gaze (e.g. Johnson and Libecap, 1994). The deep administrative state typically takes the form of multiple bureaucracies each striving to realise its own agenda and achieve its own objectives – often in competition with other agencies in what might be charitably described as a lack of goal-directed co-ordination. While historically, many have seen this as a problem, perceiving it as being anti-democratic, inefficient and as getting in the way of good government (see, for example, Osborne and Gaebler, 1992;



Suleiman 2013; Andrews, 2015), the administrative state can also play a critical role in protecting citizens from the abuse of power by political parties and powerful individuals and external organisations (Bannister 2005).

To justify this statement, we go back to Weber's classic account of bureaucracy. Weber saw bureaucracy as an ideal-type. He never claimed that bureaucracy was the most efficient form of government, only that it was a 'scientific' one. A full discussion of Weber's ideas is beyond the scope of this paper, but certain of his precepts are critical to its argument. The first is the starting point, namely that a professional bureaucracy is a way of protecting the citizens from the misuse and from arbitrary and/or abusive use of political power. A bureaucracy provides a professionally trained, permanently employed and empowered interface between the political class and the citizen. A bureaucracy should not only be politically neutral, its members should not even have any other form of employment or anything that might give rise to a conflict of interest. Bureaucracies operate by rule, hierarchy and the deliberate separation or siloisation of functions.

Another characteristic (and one less often cited) of Weber's model is the principle that a decision properly taken at one level of the hierarchy cannot be overridden by somebody at a higher level. Weber envisaged that at each level in the organisation certain decisions or classes of decision and certain powers would be vested. If, for example (using the terminology of the Irish civil service) a Higher Executive Officer is the person who decides whether or not somebody is given a house improvement grant, then nobody above her, be they minister or more senior civil servant, is permitted to override that decision provided that the decision was properly made, i.e. the officer concerned applied the rules for awarding a grant correctly and impartially. Paradoxically, in a democratic context, this may be the most important characteristic of all.

As noted above, there are many complaints and charges laid against bureaucracy. A common charge laid against the process described above is one of them, namely that it tends to lead to a system of decision making that is rigid, rule-bound and inflexible (for an interesting take on this see Andrews, 2015). Both principle and critique are important and we will return to both below. This principle can also be applied to levels within governance structures in a state. Most polities have several levels of government: national, state, regional, municipal, local and so on. National government should not be able to interfere in a decision which is within the competence of, say, municipal government (again provided the decision is properly made and is not *ultra vires*). The principle can also be applied horizontally. A decision made by one department or ministry or agency that is within its competence, legal and follows due process, cannot be arbitrarily overridden or modified by another agency.<sup>11</sup> This tends to happen anyway as most agencies vigorously defend their turf, but politicians and agencies sometimes usurp the responsibilities of sub-agencies and even government departments do this from time to time.<sup>12</sup>

Contrary to popular belief, most administrative power is not unaccountable, although the process for bringing it to account can be tedious. Whilst accountability and appeal mechanisms are necessary, they should be outside of the decision making organisation itself or its political masters. In contemporary terms this usually means independent regulators, commissioners or ombudsmen though it can also involve the courts. In some countries, specific structures have been developed to implement this vertical

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<sup>11</sup> Another important feature is that layers of government should have their own sources of funds and not be dependent on the central government for money, but that is a separate issue.

<sup>12</sup> A famous example of this occurred in Ireland in 1966 when the then Minister for Education, Donogh O'Malley, announced the introduction of (partially) free second level education from 1969 onwards without clearing the cost of this in advance with the Department of Finance.

independence at political level by dividing government departments into policy making and policy execution with the politicians being constrained to interact only with the former (Svara, 1998).<sup>13</sup> This was done in Ireland in an attempt (not entirely successful) to prevent government ministers interfering in policy execution. The ability of, say, a single minister or even a prime minister to overrule decisions legitimately made by civil servants is therefore limited in a variety of explicit and implicit ways both legally and culturally (what Dunsire (1995) calls the “*taken-for-granted*s” of public administration). What are sometimes seen as downsides of this process can, in democratic terms, be virtues. Politicians sometimes complain about being frustrated by public servants obstructing the popular will (Neuhold et al., 2013) or, as it is all too often put, ‘the will of the people’. However, from another perspective this frustration may be a price worth paying.

Notwithstanding the best efforts of reformers: privatisation, outsourcing, layering, new public management, networked governance, new public governance et al., all modern states retain multiple bureaucracies. The nature of these varies by polity and over time, but generally it includes similar or comparable institutions (a finance ministry, a defence ministry, a justice ministry and so on). Each agency has its own client group and its own stakeholder group. An agriculture ministry, for example, is typically responsible for managing and where appropriate protecting and promulgating the interests of farmers, food processors, veterinarians and so on. It may also be responsible for the quality of food supplied to citizens as well as food imported or exported. The defence ministry will be responsible for armed services. Beyond the major politically controlled ministries or departments there are dozens or even hundreds of other agencies each of which provides a wide variety of specialised services or functions ranging from environmental protection to registering patents. Policy is forged in interdepartmental committees and via interdepartmental battles with each agency defending its own turf (Bannister, 2005). While this can result in slow and inefficient decision making, it also tends to confer a degree of robustness to that decision making and assists in the decentralisation and diffusion of power. This diffusion of authority and power makes it difficult for one person or group to seize all of the reins of power.

So where does technology enter this picture? Before considering this it is necessary to consider briefly the critique of siloed bureaucracy. There is a price to be paid for silos. Each agency in a bureaucracy is a small (or in some cases not so small) centre of power whose mission is often perceived as being solely to look after its own stakeholder group(s) or even to ensure its own survival. Inevitably, individual citizens belong to multiple stakeholder groups. A citizen may be a farmer with school-going children who drives a car, owns a licensed gun and suffers from a chronic medical condition. Unfortunately, bureaucracy sees the citizen in what O’Higgins (1984) called “social slices”. This *modus operandi* causes all too predictable problems when it comes to integrated or seamless services. The social welfare/social security department may see somebody as currently unemployed, unmarried and living in subsidised housing, but may not be aware that the same person has a criminal record or a large tax liability. Thus, the very siloisation that makes power harder to seize or abuse also makes government less efficient. Fragmentation and siloisation lead to duplication, lack of data integrity, delays, inefficiencies and a litany of other problems and inconveniences.

Since the 1970s, the favoured technological solution to these problems has been integration and the use of ICT in driving this integration has been a major theme of e-government theory and practice. Integration appears under different guises (the one-stop-shop, seamless government, transformative government, integrated government, whole-of-government, etc.). The principles always include, *inter alia*,

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<sup>13</sup>Such a structure was implemented in Ireland in the early 1970s following a report (Devlin, 1970) by a special group set up to make recommendations on Irish public service organization.

rationalisation, standardisation and some degree of centralisation. Many commentators and scholars (including one of the authors of this paper) have discussed this and proposed different ways to reduce or eliminate the problems of bureaucratic fragmentation and silos (Bannister, 2001). Unfortunately, or perhaps fortunately in retrospect, integration has turned out to be a far more challenging exercise than many anticipated. In fact, the history of integration and standardisation using ICT in the public sector is not a happy one. It is littered with disasters going back to the 1970s (for example the famous or notorious Operational Strategy (Margretts and Willcocks, 1993)) and while there have been some successes, including in Ireland, progress has been slow (Anthopoulos et al., 2016). This may turn out to be not entirely a bad thing; it gives polities an opportunity to try an alternative path.

## 5. Using ICT to protect democracy

How might ICT enhance the form of robustness discussed in the preceding section? We first propose a principle from which a number of consequences follow and secondly a number of other possible ways in which ICT could be deployed or implemented so as to enhance democratic robustness. The principle is that ICT architectures should be designed in such a way as to support the separation of administrative systems in any state by being based on interoperability rather than integration. To understand the implications of this, it is necessary to differentiate between interoperability and integration.

While interoperability and integration are portmanteau terms, interoperability has a more narrowly defined meaning. Integration is a word used in a much wider variety of contexts including definitions which incorporate (or are even used as a synonym for) interoperability. An interoperable environment is one in which *independent* systems interact and transact. In such an environment there are typically multiple centres of authority and/or local control. An interoperable ecosystem operates using a form of networked governance. An integrated system is one in which there is either a single authority and/or a single locus of control and where, in ICT terms, there is a single overall architecture which may include a single database<sup>14</sup> for example or even a single piece of software (a parallel is sometimes drawn with the role of Enterprise Resources Planning systems in business). In public sector terms, one core difference is that interoperable systems are built on the acceptance of silos; integrated systems are built on the principle of trying to eliminate silos. A second core difference relates to the question of ownership of data. In an integrated system data storage is centralised and shared data is accessed by direct connection to the central data store(s); in an interoperable system, ownership of data is compartmentalised.

Note that from the user's perspective, the difference between a system based on interoperability and one based on integration need not be perceptible. Van Veenstra gives an example of planning applications in the Netherlands where a planning request can involve obtaining permissions and/or permits from several agencies. In an attempt to save the citizen having to contact several agencies, the government developed a single portal, *Omgevingsvergunning*, where such applications could be made. Behind the scenes, however, many of the individual agencies were still in their silos. The result, was, in the pithy summary of one public servant "*We staple ten decisions together and call them one decision.*" (Van Veenstra, 2006). That is a fair criticism of the system, but from the user's point of view, (s)he has only to deal with one portal. What happens behind that portal is unlikely to be of concern to her (except possibly as a taxpayer footing the bill for the resulting inefficiency). The key point is that *for the end user, the difference between an interoperable systems and an integrated one is generally unimportant.* Integration

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<sup>14</sup>Not necessarily literally; it could use a distributed architecture.

encompasses system design, architecture and control, not just providing a seamless service to the end user. An interoperable system can provide the latter, i.e. provide a robust, distributed decision making system, but present a seemingly seamless interface to the citizen thus dispersing power whilst retaining ease of citizen use.

There are three primary components affected by this principle: systems, in the sense of entire computer systems or subsystems, data and processes which are now discussed briefly.

First, agencies should own or control their own primary ICT systems. In an era of distributed systems, outsourcing and cloud computing this opens up obvious policy questions. There has been increasing discussion of government clouds for example (Macias and Thomas 2011; Tweneboah-Koduah et al., 2016; Lohrmann, 2017) which raises the question of who owns the cloud and how do individual agencies maintain control of their own systems in a cloud? Outsourcing (see below) raises problems with control for several reasons including the loss of technical knowledge and the dependency on private sector expertise. In a robust bureaucracy, agencies should retain the necessary technical and managerial know-how to protect their systems. Today, many do not.

Secondly, and perhaps most critically, government agencies should be responsible for their own data and have a duty to protect such data from unauthorised access or use by other government agencies. This is particularly so for sensitive data such as personal information including race, nationality and religion, health data, financial data and police records. Deliberate dispersal of data has implications for how external agencies request data or access data from other agencies assuming that they have been given authorisation to do so. In an interoperable system, such a request would typically use a messaging architecture. Department A needs data that Department B owns. It sends a request to Department B which checks this against its internal rules and, if appropriate, returns the data requested. In an integrated environment, Department A's system could be given the right of direct access to the data in Department B's systems which means that Department B may know that its data has been accessed until after the event (and maybe not even then). Other implications might include a legal requirement that Department A delete the data acquired once it has been used for purpose. If it needs the data again, it can request it from Department B. Most of this can be automated, but with the option for the system to refer a request to human decision if it does not meet clear criteria. This has implications for encryption and the use of a public-sector key infrastructure; for example, agencies may need their own private key and public keys.

Thirdly there are processes. Processes raise more difficult challenges. Interagency processes need to be owned by one agency, though they might be initiated by a number of the different agencies involved. Each agency would own its own internal processes. Interagency processes would need a single guiding authority, but where possible control of sub-processed would be retained in individual agencies. Both this, and the control of data, would require an appropriate legal framework.

The basis on which this would operate would be similar to that in, say, the European Interoperability Framework (EIF) (European Commission, 2017) which sets out principles and guidelines for interactions between a public administration and other public administrations, businesses and citizens within the European Union. The EIF is necessary because these can be interactions between the administrations of sovereign states as well as business and citizens who are outside of a state. Whilst government agencies are not sovereign states, the principles of the EIF can be adapted for communication between them. The EIF is comprised of a defined area of commonality and a defined system of interfaces between National Interoperability Frameworks (NIFs). It is designed as an ecosystem, i.e. one in which various components interact with each other rather than being centrally controlled. There is no reason why NIFs should not be organised on the same set of principles.

Returning momentarily to Weber, silos are usually thought of in terms of the vertical. However, as noted above, Weber also envisaged layering within organisations whereby certain powers exist at certain

levels and cannot be overridden (they can, of course, be changed by regulation). As noted above, developments in public administration in recent decades have reduced this type of robustness and this has the effect of concentrating power. The more power is concentrated, the easier it is to seize. Most government organisations do, of course, have internal access controls and rules, but where these are absent or have fallen into disuse, they need to be put in place or reactivated. A principle of vertical systems architecture should be to make it difficult to interfere, i.e. for public servants to go beyond their legal authority at any level. This may require a level of security that goes beyond simple password protection.

Finally there are other strategic issues that need to be considered. A number of these relate to situations where the operation of a computer system is not under the full control of the agency that owns it. The fashion for outsourcing of government ICT in some countries (notably the UK) has resulted in major systems that are now *de facto* controlled by private companies (for an insightful example of the problems that this can create this see Cordella and Willcocks's (2012) account of the ASPIRE contract). Agencies need real, not just notional, control of their own data, systems and processes. In some instances this may be achievable by insourcing. In practice, however, such a policy may, in many instances, be too expensive or impractical in which case steps should be taken whereby the control of critical aspects of outsourced systems (such as data access rights) are checked and, if found deficient, then resolved.

The principle that underlies this proposal has certain parallels with the so-called "Tobin tax" (Tobin, 1995). The Tobin tax (sometimes referred to as the 'Robin Hood' tax) is a levy on currency (or by extension on other) transactions, proposed by the Nobel prize winning economist James Tobin as a way of discouraging socially unproductive financial trading and in particular high speed, high volume currency trading in which arbitrage and large amounts of money or securities are transacted at wafer-thin margins. Tobin argued that by introducing a miniscule level of taxation on such transactions, it would make them unprofitable and open up space for (amongst other things) better interest rate policy. Genuine transactions, ones serving a purpose other than up-market, high speed exploitation of tiny and brief dislocations in the market, would be unaffected as the tax was so small. But deals on fine margins would not be. Tobin himself described it as putting "*sand in the wheels*" of the market. Tobin's proposal attracted a lot of discussion and some criticism, not least from those in the financial services industry who would stand to lose were such a tax introduced. Economists were (and continue to be) split on its wisdom (Raffer, 1998). Tobin accepted that his proposal flew in the face of free market principles and the ideal of a highly liquid financial system, but argued that the social cost of current behaviour was too high and that the tax would nudge people to behave in social more productive ways (Sunstein and Thaler, 2008). The loss of liquidity would be insignificant in real economic terms. It was a small price to pay for greater economic stability.

In an analogous manner, people accept inefficiencies in their day to day lives in the interests of their health and safety. Airline passengers are often frustrated by having to go through security checks at airports. Life would be much easier were they allowed to go straight on board the plane with their hand baggage as was the case in the 1950s. We accept seat belts in cars and vaccinate our children. Our lives are surrounded and governed by regulations which slow us down, hold us up and stop us from doing things the way we might like to do them. We may complain about the delays in the planning process, but such waiting periods are there to protect the community as a whole. Why should protecting our democracy not be worth a similar small price? With skilful use of ICT, that price need not even be in levels of service, though it will be paid for in additional hidden complexity behind the scenes.

## 6. Conclusion

In Ireland's recent history, there is an extraordinary story of a civil servant standing up to a powerful

minister when Peter Berry, Secretary of the Department of Justice, stood up to two senior government ministers who tried to get the department to allow an illegal arms smuggling operation to proceed at Dublin airport.<sup>15</sup> The weapons were not for an internal coup – they were destined for the Northern Irish nationalist community that, at the time, was under attack from loyalist mobs. The fact that a senior civil servant could and did face down two cabinet members illustrates the potential power of the administrative system to block illegal political behaviour even in a time of great tension and political ferment.

Designing and maintaining a strong, deep and democratically committed state – one which can protect democracy, which has public values embedded in it, but which remains flexible and responsive is a non-trivial task. On the positive side, many democratic countries are not starting from scratch and have a tradition of strong, independent administrative sectors. The significance of technology is in its ability to deliver the last of these components – flexibility combined with democratic robustness. This is a challenge that needs to be addressed, but we have to start with a change of mind-set. Neither changing mind-sets nor delivering solutions will be easy and this paper does not claim to provide roadmaps for either – what we make is the argument for the principle. Once that is accepted, details of execution will need to be thought through.

The claim in this paper is not that a well-designed, deep administrative machine can prevent a sufficiently determined and well organized putsch or that it can, of itself, prevent the slow erosion of democracies from within (Levitsky and Ziblatt, 2018). Any group of people who are ruthless enough and who have sufficient backing, in terms of popular support (or the army), can usurp power and destroy a democracy. The separation of powers has always been one of the main protections against this. One such separation, often overlooked, is the division between politicians and administrators and the divisions within administrations themselves. Undermining or subverting such a state takes time and resources and given time the “will of the people” can change. An Irish journalist, the late John Healy, used to refer to the civil service as “*the permanent government*” and there is an element of truth in his words. A well designed and run modern state can survive surprisingly long without a government in power. Belgium was without a government for 589<sup>16</sup> days in 2010–2011 because of a dispute between the Walloon and Flemish parts of the state<sup>17</sup> (and Belgium is one of the most administratively complicated states in the world with multiple layers and a highly decentralised form of governance (Hendricks, 2001)). Without a parliament there can be no new policies or legislation, but provided there is no major crisis, a modern state can manage quite well without any new rules for a surprisingly long time.

We argue that principle of sacrificing efficiency for democratic robustness can be applied to public administration, and that, by prioritising interoperability over integration, modern ICT can reduce any consequent reductions in efficiency to manageable and politically acceptable levels. The idea that one would deliberately choose not to integrate systems and data is contrary to a number of decades of thinking about e-government (including, as noted, one paper by one of the authors of this paper). But, in the words of Paul Samuelson “*Well, when events change, I change my mind. What do you do?*”<sup>18</sup> Circumstances are changing and it behoves us to rethink. We need to consider reinforcing the diffusion of decision making and even our bureaucratic structures.

In making such a proposal, we are conscious that we are flying in the face of what has become conventional wisdom in many quarters over the past few decades. We argue, however, that it is time not only to think outside the box, but perhaps to take a closer look inside it as well.

<sup>15</sup>[www.irishtimes.com/news/arms-trial-ensured-lynch-s-northern-policy-prevailed-1.301495](http://www.irishtimes.com/news/arms-trial-ensured-lynch-s-northern-policy-prevailed-1.301495).

<sup>16</sup>There are different numbers cited for this, but they are all in or around 589.

<sup>17</sup><http://washingtonmonthly.com/2013/10/09/how-belgium-survived-20-months-without-a-government/>.

<sup>18</sup>This statement is often attributed to John Maynard Keynes, but there is no known record of him having said it.

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