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Open government and the use of ICT to reduce corruption risks

Luís de Sousa

INTRODUCTION

Over the past three decades, advanced industrial countries have witnessed a decline of citizens' confidence in the core public (Miller 1974; Niemi et al. 1989; Dalton 1999; Nye 1997; Norris 1999; Newton 1999; Newton 2006) and a wide range of private institutions (Lipset and Schneider 1983; Dogan 1994; Listhaug and Wiberg 1995; Dalton 1996). This erosion of confidence in the major institutions of society has been explained as a result of both contextual government ineffectiveness and poor macroeconomic outcomes (Lewis-Beck 1988; Norpoth 1996; Newton 2006; Polavieja 2013; Magalhães 2014, 2016; Quaranta and Martini 2017; Teixeira et al. 2014) and as a consequence of deterioration in the quality of government performance (Aarts and Thomassen 2008; Holmberg and Rothstein 2012; Rothstein 2009, 2011; Rothstein and Teorell 2008; Wagner et al. 2009).

The successive waves of corruption scandals and fraudulent practices affecting both State and market spheres that have taken place in those countries have led people to believe that the public good was being subverted and (ab)used for the benefit of a few. This not only had a negative impact on public support for democratic government (Anderson and Tverdova 2003; Bailey and Paras 2006; Canache and Allison 2005; Fackler and Lin 1995; Morris and Klesner 2010; Seligson 2002), it also hindered policy-making efficiency (Aarts and Thomassen 2008; Rothstein and Teorell 2008; Wagner et al. 2009; Rothstein 2009, 2011; Holmberg and Rothstein 2012; Dahlberg et al. 2015) and economic development (Rose-Ackerman 1978; Mauro 1995, 1997; Cartier-Bresson 1995; Sandholtz and Koetzle 2000; Treisman 2000).

Against this daunting background, governments are under increasing pressure to fight corruption and improve the quality of governance, by opening up the decision-making to public scrutiny and making it more accessible to the people who elected them and more responsive to their problems, needs, and demands. Through the interplay of a series of governmental and non-governmental actors, corruption has moved from being a parochial problem, circumscribed to a particular set of countries or regions, to a global development concern through the adoption of the UN Convention against Corruption in 2005 (also known as "*Mérida Convention*") by the General Assembly on 31 October 2003 (Res. 58/4) and open for signature by all member States from 9 December 2003 until 9 December 2005, in accordance with article 67 (1)

of the Convention (De Sousa et al. 2009). Although there had been other previous regional attempts at setting and harmonizing legal standards and instruments to fight corruption,¹ the Mérida Convention offered, by far, the most comprehensive approach and inclusive platform, due to the mandatory character of many of its provisions and because it was framed and negotiated under the auspices of the UN General Assembly.

Notwithstanding all these multilateral efforts, corruption was surprisingly not included in the eight areas of intervention covered by the 2000 Millennium Development Goals (MDGs) agreed by more than 180 world leaders. Although the MDGs had dealt with a bundle of global concerns that countries ought to mitigate (e. g. from poverty to diseases) and planetary must-haves that they ought to promote (e. g. from climate stability to universal primary education), the (quality of) institutional actors and policy-processes to achieve those goals had not been given sufficient attention as potential determinants. That said, the relevance of using and making available the benefits of new information and communications technologies (ICTs)² was mentioned, for the first time, as a lever of sustainable development under the Global Partnership for Development (MDG8). Accordingly, ICT can play a key role in integrating and accelerating the three core pillars of sustainable development – economic growth (by bringing cost-efficiency to business, allowing organizations to work more efficiently and to maximize productivity); social inclusion (by bringing welfare services such as healthcare and education closer to those who need them, including in the most remote areas, reduce

1 The UNCAC was preceded by a series of multilateral criminal law conventions of a regional scope, such as: the 1995 EU Convention on the Protection of the European Communities' Financial Interests; the 1997 the Convention on the fight against corruption involving officials of the European Communities or officials of Member States of the European Union; the 1997 Inter-American Convention Against Corruption (IACAC); the 1999 Convention on Combating Bribery of Foreign Public Officials in International Business Transactions; 1998 Council of Europe Convention for the Criminalisation of Corruption, the 2003 African Union Convention on Preventing and Combating Corruption, the 1996 Inter-American Convention against Corruption (IACAC); the 2002 Council of Europe's Criminal law Convention on Corruption; the 2003 Council of Europe's Civil law Convention on Corruption; and the 2003 African Union Convention on Preventing and Combating Corruption, to mention the most important.

2 By Information and communications technologies (ICTs), it is meant "a wide range of services (telephony, fax, internet), applications (such as distance education and management information systems), and technologies (anything from 'old technologies' such as television to 'new technologies' such as cellular phones), using various types of equipment and software, often running over telecoms networks" (Martínez-Frías 2003, 10).

their operational costs, and enable people to choose how, when, where, and at what rate to access those services); and environmental sustainability (by optimizing societal activities to make them less resource intense and thus more environmentally friendly, and making people more conscious about the environmental impact of their lifestyle and the alternatives available to steer their conduct and actions toward a more environmentally-friendly direction). ICT is not a panacea. If the right conditions are not met, it can have a reverse effect on sustainable development, for example, by increasing long-term unskilled unemployment, reinforcing social exclusion of individuals with poor digital skills, and adding to environmental problems, such as the disposal of old technology.

Under the MDG framework the focus was to reduce and bridge the digital divide between developed and developing countries and to place ICTs at the service of development for all, through a global multi-stakeholder partnership between governments, businesses, multilateral institutions, academia, and civil organizations, as stated in the mandate of the UN Information and Communication Technologies Task Force, established in 2001 by the UN Secretary-General in response to the request voiced by the United Nations Economic and Social Council (Martínez-Frías 2003). Little had been said about how ICT could improve institutional capacity and governance sustainability.

In 2013 a High Level Panel of Eminent Persons was convened by the United Nations to recommend new goals and targets after 2015, when the original MDGs were set to expire. Sustainable development was no longer regarded solely in terms of economic growth, social inclusion, and environmental sustainability. Wider questions of institutional capacity, equity, governance, and social justice, were brought into play, even if, at times, articulated in a loose and fuzzy manner. Political rhetoric was now refocusing the attention on government capacity, rule of law, accountability mechanisms, and in particular anti-corruption as a precondition for sustainable development. According to this new paradigm, none of the core issues of sustainable development, such as life sustainability, sustainable food security, sustainable water security, universal clean energy, and healthy and productive ecosystems, could be achieved without sound governance and institutions at all levels (Griggs 2013, 306). In this line, a stand-alone goal on good governance and effective institutions, including two targets related to the fight against corruption, were introduced in the final

report³: on the prevention-side, the need to “guarantee the public’s right to information and access to government data”, and on the suppression-side the obligation “to reduce bribery and corruption and ensure officials can be held accountable”.

This strategic document served as a basis for the United Nations General Assembly Resolution adopted on 25 September 2015 (A/RES/70/1) entitled “Transforming our world: the 2030 Agenda for Sustainable Development”. The Resolution came into force on January 1, 2016 and established a set of targets to be adopted by the signatory parties. More specifically, under the *Sustainable Development Goal 16. Promoting Peaceful and Inclusive Societies for Sustainable Development, Provide Access to Justice for All and Build Effective, Accountable and Inclusive Institutions at All Levels* (hereinafter, SDG16), the signatory states have committed themselves to adopt measures aimed at reducing corruption and bribery in all its forms, and to promote public access to information and the development of more participatory, inclusive, representative, and accountable decision-making processes.

Countries have claimed different reasons for fulfilling SDG16 and have opted for different strategies and solutions. ICT regained significance in this new sustainable development paradigm in two interrelated ways: by making the functioning of public (as well as private) organizations more transparent and efficient, (1) it improves citizens’ and other stakeholders’ confidence in development processes and systems and (2) it leads to a more effective use of financial resources, thus resulting in monetary savings that could be redirected to other priorities. Since then a series of ICT solutions to improve government transparency and reduce opportunity structures for rent-seeking behaviour and embezzlement of resources have been put in place with greater or lesser success. As the former UN Secretary-General Kofi Annan mentioned during the formal launch of the Task Force on Information and Communications Technology, the use of ICT can improve the quality of governance in a variety of ways, but it is not a magic bullet (Martínez-Frías 2003, 10). Technology offers, at best, a partial solution to the multifaceted problem of corruption.

This chapter is organized in four parts. First, it begins by addressing the relationship between transparency, and the idea of “open government” more

3 *A New Global Partnership: Eradicate Poverty and Transform Economies through Sustainable Development – The Report of the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda*, New York: UN publications. Available online: https://www.un.org/sg/sites/www.un.org.sg/files/files/HLP_P2015_Report.pdf (accessed 23-2-2018).

broadly, as a necessary condition for the concept of good governance. Second, it discusses how government openness can be implemented through the use of ICT. Then, it looks specifically at the role that ICT can play in preventing and combating corruption in view of the fulfilment of SDG16, through an overview of the type of governmental initiatives that have been implemented in recent years. Finally, it makes some general comments on whether or not the use of ICT can actually make a difference in mitigating corruption risks.

TRANSPARENCY AND GOOD GOVERNANCE

There is an overall normative understanding that transparency and good governance are mutually reinforcing. In the words of the former United Nations Secretary-General, Kofi Annan (1999):

In practice good governance involves promoting the rule of law, tolerance of minority and opposition groups, transparent political processes, an independent judiciary, an impartial police force, a military that is strictly subject to civilian control. A free press and vibrant civil society institutions, as well as meaningful elections. Above all, good governance means respect for human rights.

In the same line, the UN Commission on Human Rights, in its resolution 2000/64, “recognizes that transparent, responsible, accountable and participatory government, responsive to the needs and aspirations of the people, is the foundation on which good governance rests”.⁴ Although it is possible to imagine a government performing unsatisfactorily in spite of transparent institutions, it is hard to conceptualize good governance without including the value of transparency. This normative quagmire raises several problems from the viewpoint of empirical research, which this chapter will not be able to address. We are conscious that a deeper reflection is needed as to what these ethical standards, such as transparency, accountability, impartiality, and legality actually mean to people, how individuals value transparency in relation to other standards, what kind of value trade-offs do they make between competing moral concerns (Dungan et al. 2014), and to

4 <http://www.ohchr.org/EN/Issues/Development/GoodGovernance/Pages/GoodGovernanceIndex.aspx> (accessed on 23-11-2017).

what extent and in what ways such standards are perceived as essential to good governance.

For the time being, let us be content with the overall aphorism that transparency matters to governance. Transparency has been enshrined in several national constitutions and international conventions as a general principle of good governance or, more specifically, as a fundamental freedom: the right to freely seek and access information held by public bodies (Cross 1953). References to the duty to publicize administrative decisions or the right to access administrative documents or even the need to secure transparency over the assets of elective officials or the financing of political parties and electoral campaigns have found their way into constitutional texts.

By transparency it is meant the capacity of the political-administrative system to provide full, timely, easily accessible, and relevant information on the government's actors (and their interests), structure, process, and decisions, so that the process of decision making can be open to (public) scrutiny and decision-makers are held accountable for their decisions (Davis 1998; Wong and Welch 2004; Curtin and Meijer 2006; Piotrowski and Ryzin 2007; Ball 2009; Grimmelikhuijsen 2010; Borry 2012; da Cruz et al. 2016).

This is also the understanding of international governmental and non-governmental organizations. The United Nations (2004) defines transparency, in accordance to Article 19 of the Universal Declaration of Human Rights – i. e. the universal right of all “to seek, receive and impart information” – as the free access to up-to-date and reliable information on the decision-making, management and execution of public policies. The European Union associates transparency with the right of access to information and participation. The Treaty of Lisbon, in force since December 2009, establishes that “[d]ecisions shall be taken as openly and as closely as possible to the citizen” (art 10.3); that both citizens and representatives should be given opportunities to “make known and publicly exchange their views in all areas of Union action” (art. 11.1); and “institutions shall maintain an open, transparent and regular dialogue with representative associations and civil society” (art. 11.2). Citizens have both the right to know how decisions are formulated, adopted and implemented and by whom, and to express their views on all cases and decisions either directly or through their representative bodies. Transparency International (2003) defines transparency as the process of making citizens aware of why, how, what, and by whom political decisions and administrative conditions affecting their lives were made.

The concept of transparency is closely linked to the notion of access to information as a precondition for public scrutiny, participation, and accountability (Piotrowski and Ryzin 2007). In principle, e-government solutions are likely to narrow the information gap between rulers and ruled by granting access to information and services, thereby enabling citizens to become more acquainted with the policy process (Altman 2002). In practice, however, the right of access to information has a purely formal value if the citizen is not able to critically interpret the contents in order to produce knowledge about a particular fact and thus to be sufficiently able to participate and intervene in the public arena (Access → Information → Knowledge → Empowerment → Participation → Accountability). Only by combining proactive information and education policies will citizens be able to develop the cognitive skills needed to understand the functioning of government and participate in public decision-making (Marshall 1950; Sóos 2001, 15). This being said, once the information is out there and citizens have the tools and skills to interpret it, will they seek such information and, more importantly, will it affect the way they interpret politics and vote? Some studies suggest that greater openness of government processes through digital platforms encourages citizen participation (Kenski and Stroud 2006). Others are more cautious in relation to the positive repercussions that increased access to information via e-government might have on specific and diffuse levels of support for democracy (Altman 2002).

Transparency is subsidiary to the broader policy agenda of “open government”. Before proceeding any further, it is useful to clarify what is meant by “open government”. In very simple terms, it means:

- *Transparent government*, all government decisions and actions should be made open to public scrutiny. Making government information available to the public is a requirement for an informed citizenry and an accountable government. Restrictions to information should be made only when the wider public interest clearly demands. Citizens should not have to test their right to access information; it is the State that must justify the need to restrict information;
- *Accessible government* to anyone, anytime, anywhere. A government of the people, by the people, and for the people requires policies that provide maximum information accessibility and maximum inclusion in decision-making processes. Democracy is based upon the principle of

equal opportunities for participation and collaborative problem solving whenever possible; this is at the core of democratic governance.

- *Responsive government*, decision-makers must respond to people's problems, needs, demands, and ideas.
- *Accountable government*, all government decisions and actions must be reported, justified, and explained to the public and decision-makers must be answerable for consequences.

Open government policies are not just a set of measures to increase reporting procedures in the public administration or citizens' access to information, but also a complex and ambitious policy agenda that requires a fundamental change in the way governance is structured and operates, as well as a shift in organizational cultures and leadership.

According to the OECD (2005, 1):

Open government is one where businesses, civil society organisations (csos) and citizens can “know things” – obtain relevant and understandable information; “get things” – obtain services from and undertake transactions with the government; and “create things” – take part in decision-making processes.

Open government enables effective government by improving service provision and a better management of public resources. It also helps to increase economic development in two ways: by promoting smart and innovative public spending and by reducing privileged access to information, thus enabling free and fair market competition.

Aside from helping government efficiency and effectiveness, open government also improves the levels of transparency, participation, and accountability - essential ingredients of good governance. It does so in two ways:

- By enabling access to information, open government policies empower citizens to participate in the decision-making process not merely as recipients but as owners of those decisions, thus improving the legitimacy and accountability of policy-making;
- By serving as a bulwark against the undue accumulation of power and wealth. More recently, the open government agenda has addressed the need to put in place robust anti-corruption policies, mechanisms, and practices, ensuring transparency in the management of public finances

and government procurement, and strengthening the rule of law. Some of these measures rely on the use of ICT.

Two multilateral developments have been central to the definition and dissemination of this policy agenda:

- the establishment of the Open Government Partnership in September 2011, a multilateral initiative that brings together a variety of stakeholders in endorsing and securing concrete commitments to promote transparency, empower citizens, fight corruption, and harness new technologies to strengthen governance; and
- four years later (in September 2015), the adoption of the 2030 Agenda for Sustainable Development by the Heads of State and Governments, under the auspices of the UN General Assembly finally establishing a link between institutional capacity and sustainable development, though in a loose manner. A series of ambitious long-term targets were set forth ranging from the strengthening of the rule of law (16.3), the recovery and return of stolen assets (16.4), the reduction of corruption and bribery in all their forms (16.5), the development of effective, accountable and transparent institutions at all levels (16.6), the safeguarding of responsive, inclusive, participatory, and representative decision-making at all levels (16.7), and public access to information (16.10).

Both initiatives stress the fact that government openness is of the utmost importance in a context where the system of collective decision-making has become increasingly complex and diffuse, characterized by a dense system of policy networks, involving public and private stakeholders interacting and seeking to pursue common objectives without a hierarchical/command structure (Börzel 1997). Decisions and activities affecting people's lives are increasingly carried out by a range of actors with common goals, without a clear structure of authority with vertically enforced legal and formally prescribed responsibilities for each player, in which governmental authorities are sometimes left with a moderating/oversight function. In such a complex and diffuse system of governance, transparency plays a legitimizing role. Not surprisingly, the implementation of the open government agenda is primarily concerned with making information available for public scrutiny to reduce information asymmetries between rulers and ruled and open up the possibility

for dialogue, informed decision-making, and a more frequent and effective monitoring of public management. In doing so, government openness may create better conditions for more effective corruption control and help to improve citizens' trust in public institutions (Cullier and Piotrowski 2009; Grimmelikhuijsen 2010; Bertot et al. 2010; Borry 2012).

THE USE OF ICT AS A WAY OF IMPLEMENTING GOVERNMENT OPENNESS

Some countries have gone to great lengths to implement government openness through the introduction of information and communication technologies (ICT) (UN, 2004). These tools have been praised and widely recommended for their ability to strengthen participatory democracy and open policy processes to citizens' scrutiny. The introduction of ICT has, to a large extent, revolutionized the way public authorities communicate and interact with citizens (Armstrong 2011; Musso et al. 2000; Tolbert and Mossberger 2006; West 2004; Curtin and Meijer 2006; Margetts 2009; Grimmelikhuijsen 2010).

However, there are advantages and disadvantages associated with this. On the one hand, the use of ICT has helped to reduce the information gap between governmental authorities and non-governmental stakeholders and to foster the dialogue between policy-makers and citizens (Bertot et al. 2010; Shim and Eom 2008, 2009; Welch et al. 2005). On the other hand, it has put more pressure on bureaucracies to respond to citizens' needs and demands (Pina et al. 2010).

Governments can enjoy high levels of transparency not necessarily resulting from the introduction of ICT. Likewise, making public information available online is not in itself an act of transparency if the information provided is not of easy-access, reliable, intelligible, and of interest to those who seek it. The fact that such information is available online, free of charge, does not mean that citizens will construct their understanding of the functioning of institutions and the policy processes based on those elements. Moreover, as already said, there are no guarantees that once people are better informed of how decisions are taken on their behalf and how their taxes are spent, they will reward or punish the incumbent accordingly. That said, the introduction of technological and communication solutions has been developed and sought as a means to enhance government transparency, in light of a more

intense and complex interaction between citizens/businesses and their public administration; to improve the quality of public services; and to foster public integrity.

This concern for a more transparent, accessible, and accountable public administration through the use of ICT has been a constant feature of democratic governments, with varying degrees of consistency and achievement over the past two decades. Countries have established innovation and development units and ICT agencies responsible for developing national strategies and action plans on how to establish a unified policy for all ICT issues at all government levels, and implement solutions targeting specific sectors, from industry and product development, through commerce to the management and provision of public services (Schware 2003). In a few words, these governmental agencies have been responsible for developing, implementing, promoting, monitoring, and evaluating the concept of digital government in all its facets. Almost everywhere, new financing programmes have been launched for the development of technological infrastructures, such as the dematerialization of documents; the computerization of public services; the introduction of online service platforms; the implementation and expansion of fibre-optic networks; the adoption of unified standards, protocols, and best practices to address all information operations across the public administration (including the construction of internet portals); the introduction of performance evaluation systems; etc. All of this has had repercussions, although not always positive, on the levels of transparency and government efficiency.

Some studies suggest that the introduction of ICT can have positive repercussions on governance performance at four levels:

- At the input level, by raising public expectations and demands with regard to policy making and public service delivery (Musso et al. 2000; Welch et al. 2005; Curtin and Meijer 2006; Tolbert and Mossberger 2006; Grimmelikhuijsen 2010; Armstrong 2011). On the one hand, ICT generates information flows and a permanent interaction between users/clients (service/policy recipient), agents (responsible for service/policy management and delivery) and the principal (responsible for policy/service decision-making); on the other hand, it allows citizens and businesses to seek information autonomously, according to their own preferences and needs and independently of public service performance (West 2004).

- At the level of political accountability, by enabling citizens to participate, in a more informed and empowered way, in the public management process, ICT solutions can increase the levels of responsiveness of elective officials and, *ultima ratio*, strengthen democratic representation (Kim et al. 2005; Borry 2012).
- At the level of government efficiency and effectiveness by improving the capacity of public services to respond to users' demands (Tolbert and Mossberger 2006);
- At the level of political leadership by demonstrating the principal's commitment toward the idea of open government, thus strengthening public support for democratic governance (Armstrong 2011).

Although there is a worldwide consensus that government openness constitutes, in a Kantian perspective, an ethical imperative of good governance, the relevance of ICT to the pursuit of this goal depends, to a large extent, on the results obtained with the implementation of concrete public policies in this domain.

There are, of course, benefits and costs regarding the introduction of ICT in the framework of open government policies that need to be weighed. Government openness is neither an absolute value, nor desirable at all costs. As David Brin (1999) alerted us in his famous work, *The Transparent Society – Will Technology Force us to Choose between Privacy and Freedom*, the implementation of government openness via technological solutions may lead to the very opacities it claims to obviate at the expense of other values such as trust and privacy ingrained in the nature of the liberal-constitutional nature of our democratic regimes.

USING ICT TO FIGHT CORRUPTION

Does the use of ICT make any difference in the fight against corruption?

Countries have claimed different reasons for pursuing the targets set under SDG16, in particular the adoption of measures aiming to reduce corruption and bribery in all its forms, and have opted for different solutions. Many of these have embraced the use of ICT as a means to increase government transparency and to reduce opportunity structures for corruption (Bertot et al. 2010): from the implementation of online tax declaration forms to online registers of

interests and asset declarations for elective and senior public officials; from e-procurement and geo-referenced land record systems to electronic voting, petitions, and participatory budget platforms; Internet-based innovative techniques have been used to reduce corruption risks.

There are four major functions that ICT can have in helping to reduce corruption risks:

- *Awareness raising function.* First, ICTs have a remarkable value-diffusion capacity and are therefore key to raising awareness about specific governance problems, such as corruption in all its forms. “Web-based technologies and services which include blogs, wikis, social bookmarking, media-sharing services, collaborative editing tools, and social networking services” (Bertot et al. 2010), have been widely used to promote openness in cases in which the government is resistant to transparency or in which the levels of probity of office holders have deteriorated. ICT can also dramatically speed up public awareness of the successes and shortcomings of anti-corruption campaigns and new services and technologies, and as a result the demand and readiness for these, thereby putting pressure on national authorities to scale-up their efforts. The drawback of this function is that it often generates a wide, nontechnical, and sometimes media-inflated debate on corruption control conducive to populism and fig-leaf solutions to complex problems.
- *Reporting function.* Introducing ICT to help mitigating corruption risks is not just about creating public spaces for debate and awareness-raising campaigns; it is also about operating platforms in which corruption, abuse of office, and malpractice can be reported without the fear of censorship, reprisals, or institutional bullying. This is the case of Wikileaks (www.wikileaks.org), a website supported by a transnational not-for-profit community, with the goal of providing a safe online complaints system that protects the identity of individual or collective whistleblowers so that they may anonymously disclose sensitive information that has been censored or deleted from public knowledge and that may substantiate unlawful (or objectionable) practices and conduct by governments, public figures, international organizations, or companies. The public disclosure of these documents with political, economic, and historical relevance makes WikiLeaks a potentially powerful technological tool

in the fight against corruption and related social evils, such as human rights violations, environmental degradation, tax fraud, food insecurity, etc., exposing targeted entities to public condemnation on the global stage. This can work as a powerful tool of accountability (Bertot et al. 2010), but it is also open to arbitrariness, by redaction and selective withholding of information; inefficiency, by releasing to the public documents that may encroach upon on-going undercover investigations; and lack of accountability, by making it difficult, due to the anonymity of whistleblowers, to verify the authenticity of leaked records, thereby increasing the risk of misinformation (Kwoka 2015).

- *Compliance function.* ICT platforms can also be used to enforce ethical standards within an organization. These tools have been primarily developed in the private sector as a means for businesses to monitor, signal, and manage conduct or practices by employees and senior managers that could hinder the organization from reliably achieving its objectives and harm its reputation. More recently, countries have introduced similar “sunlight” digital solutions to increase the overall levels of transparency in public life: online asset declarations and registers of interests applicable to elective and public officials; centralized online platforms to monitor campaign donations and party financial statements; online lobby registers; online governmental platforms to monitor public spending by collecting and displaying spending data, ensuring data reliability, and broadening the deployment of cutting-edge technologies that can identify and prevent the fraudulent use of public funds.
- *Risk-management function.* ICT can markedly reduce corruption risks by providing low-cost online platforms to monitor and promote more inclusive, transparent, and accountable decision-making, thus reducing the cost of collecting, distributing, and accessing government information (Bertot et al. 2010, 52). In other words, by reducing the human-factor in the principal-agent-client equation and the direct contact and familiarity between agents and clients, these technological solutions can help to mitigate rent-seeking behaviour. However, in order for these tools to produce the desired effects, other than improving public access to administrative documents, they must also ensure that the rules and procedures are transparent and easily understood by citizens/businesses and that they are effectively able to track the decisions and

actions of government authorities. This is the case with e-government solutions in risk areas with high economic value or social impact, such as land and soil management, house and business licensing, public procurement, tax filing, passport and driving license issuing, social housing allocation, etc. Chile, Portugal, and the Philippines have been pioneers in this domain through the development of e-procurement platforms that allow citizens and businesses to actively engage in bidding processes, track the progress of their requests/applications, and monitor the awarding of contracts and grants, thus reducing corruption risks.

Does the use of ICT make any difference in the fight against corruption? In general terms, the answer is yes. The emergence of a global era of information, fostered by widespread Internet access, has helped to make citizens, even in remote and developing regions, more aware of the difficulties and inadequacies of traditional political actors, decision-making processes, and representative institutions to deal with their daily needs and problems.

The advantages of ICT solutions for improving the quality of democratic governance (Grönlund et al. 2010; Zinnbauer 2012) have been sufficiently mapped and discussed in the literature. These include:

- Reducing information asymmetries between public agents and citizens and thus improving accountability;
- Increasing overall levels of transparency and thus limiting discretion of public agents;
- Dematerializing procedures and thus reducing red tape and management costs;
- Automating processes and thus cutting out gatekeepers;
- Identifying anomalies, outliers, and underperformance and thus improving efficiency in service delivery;
- Deterring improper conduct by enabling the media and csos to closely monitor public affairs;
- Empowering citizens to report wrongdoing and contest arbitrary treatment;
- Fostering social capital and ethical attitudes through public engagement and online discussions;
- Ensuring accountability and transparency through functionalities such as action/decision-tracking and mechanisms for feedback or complaints.

In terms of reducing corruption risks, however, the achievements are less clear-cut. According to Transparency International, e-government solutions can help to “reduce discretion, thereby curbing some opportunities for arbitrary action. It increases chances of exposure by maintaining detailed data on transactions, making it possible to track and link the corrupt with their wrongful acts. By making rules simpler and more transparent, e-government emboldens citizens and businesses to question unreasonable procedures and their arbitrary application” (GCR 2013). Although these broader claims of the advantages of ICT for implementing government openness are laudable, the academic literature seems inconclusive as to its relevance to corruption control.

A study developed by Mon-Chi Lio et al. (2011) concludes that the effects of Internet adoption on corruption reduction are not too substantial. The authors advance an explanation for this result: “[for a] country to be able to effectively use the new ICT to reform bureaucracy and combat corruption, some important conditions should be met, e.g., minimal democracy, a sense of crisis, a renewed ideology, and the political will”. Along the same line of argument, Heeks (1998) concludes, by examining five case studies regarding the use of ICT to counter public sector corruption, that while ICT often helps detect and remove corruption, it sometimes has no effect, or creates new opportunities for corruption. ICT can lead to an up-skilling of corruption and reduced competition for up-skilled corrupt civil servants.

Other authors (Andersen 2007, 2009; Shim and Eom 2008, 2009; Hopper et al. 2009; Rodriguez et al. 2010; Grönlund et al. 2010; Bertot et al. 2010; Mistry and Jalal 2012) take a more optimistic stance: although the use of ICT is not a panacea in the fight against corruption, it can play an important role when it comes to increasing levels of transparency and accountability and reducing rent-seeking risks. There are effective gains that can be obtained by reducing the human factor in certain bureaucratic/decisional procedures, informatizing certain financial management operations, making administrative procedures more transparent, enabling citizens and business to check and track their requests, etc. ICT has been used with some degree of success as a corruption reporting/mapping tool (e.g. ipaidabribe.com; speakeup.ie); electoral fraud reporting and political financing monitoring tool (e.g. votereportph.org; dineroypolitica.org); conflict of interest/networks of influence mapping (e.g. poderopedia.org); e-procurement tool (e.g. base.gov.pt); service provision monitoring tool (e.g.

de); financial disclosure tool (e.g. openspending.org); and e-mobilization tool (e.g. countable.us).

To conclude, the use of ICT offers a partial solution to the complex and multifaceted problem of corruption. In other words, technology is a complement, not a substitute, for institutional reforms aimed at strengthening ethical standards in public life (Bertot et al. 2010). For example, making asset declarations and registers of interests of both elective and senior public officials available online does not necessarily bring more transparency over their personal financial dealings or the networks of influence to which they may be subject. The deterrent effect of transparency is modest, and it can be, in certain contexts, counterproductive. Heavy declaratory obligations under low supervision may lead these agents to not declare their sensitive assets and interests. Unless proper oversight bodies and sanctions regimes are put in place, to enable the verification and validation of the contents of those declarations, there are little gains that can result from their online publication. Using ICT solutions to reduce corruption risks requires an on-going and sustained commitment from government authorities to invest in the necessary infrastructure as well as to educate people in its use. Moreover, there are a series of significant challenges to the use of ICT as anti-corruption tools that need to be taken into account: levels of digital literacy/exclusion in society; tendencies toward panopticism, especially in societies with recurring problems of power abuse and weak respect for privacy and human rights; legal and constitutional constraints (e.g. in managing personal data, using electronic signatures, etc.); structure and functioning of the telecommunications market; fragmentation of cyberspace through the imposition of firewalls, filters, registration requirements, etc.; interventions restricting social network activity, for example by blocking websites and web domains that give access to politically sensitive contents; confidentiality and privacy risks associated with the online availability and treatment of information; implementation and maintenance costs associated with the introduction of ICT solutions; and other operational limitations.

CONCLUSIONS

Daniel Bell (1967) was one of the first authors to identify two major developments in post-industrial societies that would challenge the basic tenets of contemporary democracies: the upcoming of the information society and

the rise of the Internet. The Internet has undoubtedly revolutionized the way societies communicate and interact, and therefore poses new challenges to its governance.

As Bell (1979) simply put it, “The crucial point about a post-industrial society is that knowledge and information become the strategic and transforming resources of the society, just as capital and labor have been the strategic and transforming resources of industrial society”. These resources can and have been mobilized to improve the living conditions of populations, ensure quality of governance, and secure a more open and just world order; but they have also been used for private-interest ends, more often than not, with negative externalities to citizens and businesses.

The scale on which technological change has taken place has affected governance in a variety of ways, but not always in the expected direction. Technology can increase levels of transparency and integrity in public administration by reducing transaction costs and incentives for rent-seeking behaviour. However, the very same technology can also increase opacity and venality by enabling money to flow on a daily basis to and from offshore accounts with a single click, depriving governments of its most sacred policy ingredient: taxes. Therefore, changes in scale require changes in form (Bell 1967). Contemporary societies need to adapt to changes brought by the use of ICT and to capitalize on them; failure to do so often will put them into a disadvantaged position both in market terms and in relation to the way the State administration operates (Fukuyama 2014).

Information is power. And power can be used in a proper or improper way. The abuse of information, whether in the format of censorship, bias, or propaganda, it is not just a *modus operandi* of autocratic regimes and hybrid regimes, it also haunts advanced democracies. As Régis Debray (1986) reminds us, “[t]he capability of storing, managing, distributing, and creating information” is a transforming agent in society. It must therefore be handled with caution.

Although there is widespread consensus regarding the introduction of ICT and the general effects and changes these are expected to bring about for the quality of governance, differences remain with regard to the conditions in which these strategies/programmes are put in place and the results obtained. Context matters when designing and implementing ICT tools to reduce corruption and bribery in all its forms, promote public access to information, and develop more participatory, inclusive, representative, and accountable decision-making

processes (SDG16): the predisposition of national administrations to the introduction of ICT; the degree of resistance of government administrations to reform; the availability of critical mass in government authorities to implement these programmes in a successful and consistent manner; the availability of financial resources; the level of education and digital literacy of populations; etc. Since corruption is rooted in institutional, political, economic and cultural conditions, a more comprehensive approach is needed that takes into account organizational and contextual factors when designing, formatting, and implementing digital tools to help mitigate corruption risks (Bertot et al. 2010; Kim 2014). Neither the wider use of Internet, nor the expansion of ICT solutions is a sufficient condition for government openness and public integrity. The introduction of ICT is a complement, not a substitute, for legal and institutional reforms in this domain.

LUÍS DE SOUSA

Instituto de Ciências Sociais, Universidade de Lisboa

Av. Prof. Aníbal Bettencourt 9 — 1600-036 Lisboa, Portugal

luis.sousa@ics.ulisboa.pt

orcid.org/0000-0002-6668-7138

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