

THE REALIZATION OF E-DEMOCRACY IN THE 21ST CENTURY*

A CONCRETIZAÇÃO DA E-DEMOCRACIA NO SÉCULO XXI

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ABSTRACT

This article aims to study the relationship between e-governance, e-government and e-democracy, placing the main focus on the possibilities of (de)democratization of the society for which the adoption of such systems is intended. Methodologically, its procedure method is hypothetical-deductive, with qualitative approach, and literature review research technique. Its hypothesis puts that although e-government could make Public Administration more effective, there are cultural, economic, technological and political facts that must be weighed in a complex and transdisciplinary way, when elaborating the regulation of the use of new technologies in electronic government. As its results, it should be indicated that: i) E-governance is the modernization responsive to the development of ICTs, corresponding to the attempt to reconstruct more individualized and less bureaucratic government procedures based on citizen data collected by ubiquitous techniques; ii) E-government is the use of e-governance to make government more efficient — although it appears to be focused on the well-being of citizens, it also comprises companies and agencies. However, several contextual issues must be observed to evaluate its implementation, as it is not just a matter of computerizing the Administration: it is a real transformation in the conception of government and its relations in cultural, economic and technologically favorable contexts; iii) E-democracy is more than the creation of popular electronic decision-making instruments, as a democracy needs a

RESUMO

Este artigo objetiva estudar as relações entre e-governança, e-governo e e-democracia, focando-se principalmente nas possibilidades de (des)democratização da sociedade para a qual a adoção de tais sistemas se destina. Metodologicamente, seu procedimento é hipotético-dedutivo, sua abordagem qualitativa, e técnica de pesquisa bibliográfica. Sua hipótese coloca que embora o governo eletrônico possa tornar a Administração Pública mais eficaz, existem fatos culturais, econômicos, tecnológicos e políticos que devem ser ponderados de forma complexa e transdisciplinar, na elaboração da regulamentação do uso de novas tecnologias no governo eletrônico. Como resultados, deve-se indicar que: i) E-governança é a modernização responsiva ao desenvolvimento das TICs, correspondendo à tentativa de reconstruir procedimentos de governo mais individualizados e menos burocráticos a partir dos dados dos cidadãos coletados por técnicas ubíquas; ii) E-governo é o uso da e-governança para dar mais eficiência ao governo — e, embora pareça estar focado no bem-estar dos cidadãos, também compreende empresas e agências governamentais. Mas várias questões contextuais devem ser observadas para avaliar sua implementação, pois não se trata apenas de informatizar a Administração: é uma verdadeira transformação na concepção de governo e suas relações em contextos cultural, econômica e tecnologicamente favoráveis. iii) E-democracia é mais do que a criação de instrumentos eletrônicos decisórios populares, pois uma democracia precisa de uma sociedade civil fortalecida, de meios par-

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strengthened civil society, direct participatory means, legal instruments for expansion, knowledge-based socialization and a new viable agreement on sustainability.

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ticipativos diretos, de instrumentos jurídicos de expansão, de uma socialização baseada no conhecimento e de um novo acordo viável de sustentabilidade.

PALAVRAS-CHAVE: E-governança. E-governo. E-democracia.

INTRODUCTION

Information and communication technologies (ICTs), which are already present in economic activities (information, purchase and sale of products and services), educational, etc., overflow the private limits and start to be inserted in the public context, pragmatically and hypothetically. In practice, there are already several public information services, conflict resolution means (electronic process), provision of documents and schedules, among many others, that government entities and bodies in several countries have been offering, under the promise of greater effectiveness and transparency, correlated to less bureaucracy. Hypothetically, scholars from the most varied areas have explored possibilities for the application of ICTs in voting, decisions and proposition of norms by citizens, so that, perhaps, one day there will be a direct democracy, with the safe use of social networks and electronic tools.

This is a very significant social and political issue. Nowadays, a complex is formed, on the one hand, by State political tendencies by reducing its size, by increasing the effectiveness of public services, and by the increasing presence of ICTs in daily life; and, on the other, for new forms of communication between governments and citizens (through social networks) and for the generalized crisis of confidence in politics (characterized, among other factors, by citizens' complaints due to the lack of confidence in representative democracy and in the organization of State). Therefore, studying the interfaces between technology and government, keeping the focus on the potential for (de)democratization, is not only academically, but also pragmatically relevant. And as for legal studies, studying new democratic interactions is significant, first, to understand the possibility of configuring a new positive Law, in which direct will, through technologies, has the potential for elaborating new legislation. Second, because these new means of providing public services need (a) different regulation (because they are fast and potentially harmful to rights in the event of failures).

In this sense, the research problem that guided this work was: what are the main risks and opportunities that e-government systems can bring to democratization, and which are important parameters for its regulation? The presented hypothesis for that is that although such forms of government could make Public Administration more effective, there are cultural (i.e. technological knowledge of citizens using e-government), economic (i.e. the costs of transition

from one type of traditional service organization to another, with less personal presence), technological (i.e. degree of maturity of the systems, so that threats to their security do not offend users' fundamental rights) and political (i.e. evaluation of the ownership of political sovereignty, if fully popular, or if private companies that develop the systems have decision-making powers) facts that must be weighed in a complex and transdisciplinary way, when elaborating the regulation of the use of new technologies in electronic government.

The main objective of this work is to study the relations between e-governance, e-government and e-democracy, placing the main focus on the possibilities of (de)democratization of the society for which the adoption of such systems is intended. For this, it was divided into four parts. In the first one, e-governance is characterized, being studied its main theoretical elements, models of adoption, evolution, possibilities of use, future trends and risks. The second section deals with e-government, outlining its characterization, its possibilities of use, typology, objectives and risks. The third part, in its turn, studies the main normative pillars of the regulation of the use of ICTs for e-government, aiming at such pillars, in addition to respect for fundamental rights and the maintenance and qualification the democratic character of the society where its adoption occurs. Finally, the fourth part presents cases of adoption of e-government and e-democracy, first in other countries, and secondly, at the federal and municipal levels in Brazil.

Methodologically, it is an exploratory research, with a hypothetical-deductive method of procedure, qualitative and transdisciplinary approach, and bibliographic-documentary research technique.

1. THE CHARACTERIZATION OF E-GOVERNANCE

E-governance stems from government “modernizations” in response to the perception of citizen disengagement — a disengagement that varies, but which is reflected in the decreasing number of voters and the perceived low quality of public services — resulting in exclusion by wealthier, in favor of the private provision of services (including education and health), with the consequent erosion of the social consensus on the provision of these services.¹ This “modernization” is closely linked to what is sometimes called “holistic” government, which would bring benefits in at least two aspects.

The first aspect correspond to attempts to reconstruct the government in the interest of citizens, moving away from the logic of “departments” towards “personalization” and “life events”. And the second aspect is related to many social problems, including poor education and increasing crime, which generally result from multiple interactions, and the only effective way to deal

1 RONCHI, 2019a, p. 9.

with them is to better understand them — which means to interpret together institutional information about them to develop preventive and prescriptive actions, that is, to develop a kind of social “knowledge management”, which was impossible before the advent of generalized ICTs (such as the use of sensors and the internet of things). E-governance is also affected by the belief that the widespread adoption of digital technologies is vital for national competitiveness in the future. Despite little evidence of this, governments are concerned about the threat to living standards if they fail to achieve effective and skillful use of new technologies by citizens).

E-governance is characterized as having three main elements:²i) electronic administration (promoting transparency and accountability in institutions, making them more efficient); ii) provision of electronic services (promoting the generalized provision of public services); iii) electronic participation (promoting the interaction between public institutions and citizens, improving public policies, services and operations). This latter has three levels: provision of information to citizens, consultation with citizens and dialogue between government and citizens (generally linked to accountability, strengthening civil society and parliamentary development). Evidently, the expression/effectiveness of e-governance varies contextually and culturally, as well as at each level (local, regional, national, global, etc.). But it is possible to point out that at least three models of electronic governance already operate:³

I. New economy (USA, New Zealand and United Kingdom): it emphasizes the similarities between government and e-commerce, focuses on providing high quality public services and moving towards a more “individualized” citizenship, which could gradually decrease the size of the state. E-governance is the answer given to the demands of companies and citizens accustomed to dealing with electronic business, emphasizing convenience, 24-hour access, etc. Furthermore, it is seen as a regional and local tool for economic development. The development of e-governance would be attractive to high-tech companies. In this model, the development of infrastructure tends to accompany the market, with a consequent “digital exclusion”.

II. e-Community (Netherlands and Scandinavia): it is related to countries with well valued society and freedom of information, high levels of education and technology, and relatively uniform distribution of wealth. Here, civic networks and public access are very important elements and, where digital divisions exist, there is usually public intervention at the local level to mitigate the worst aspects. It emphasizes potential social innovations resulting from broad access and the role of citizens as co-producers of services.

III. Planned economy (Singapore and Malaysia): it occurs in countries that use public sector’s interventionist tools to boost and shape private sector activity and investment. Similar to what occurs in the “new economy” model,

2 RONCHI, 2019a, p. 10.

3 RONCHI, 2019a, p. 11.

it is determined by economic development, but the government is considered the responsible for developing the infrastructure and the skills to use it, with heavy public subsidies for building networks.

It is interesting to analyze the evolution of e-governance from the bibliometric analysis of Bindu, Sankar and Kumar,⁴ which point to four phases in the development of the theme. Its first phase lasted until 2005, and had as its main focus the information systems and their implementation models. It was characterized by the transformation of manual into digital systems by the introduction of personal computers, printers, and e-mail and SMS technology to support electronic governance. Several maturity models for implementing e-governance have evolved during this period.

The second phase, which was in vogue from 2005 to 2009, had as its main focus the evaluation models of e-governance. Phase three, which lasted from 2009 to 2012, had as its main focus social networks and multichannel communication. It was driven by the widespread adoption of the Internet, Web 2.0 technology and facilities for online cash transactions. The researchers focused on service evaluation, including adoption, user satisfaction, service quality and efficiency, and so on.

And finally, the main focus of the fourth phase of e-governance, which started in 2012 and is still in vogue, is the electronic democracy, open data and electronic participation. Electronic services were widely provided through websites and the use of e-mail and SMS increased considerably. The reduction in the cost of electronic accessories associated with electronic governance and the use of the Internet accelerated the developments in the third stage, which characterized the multichannel delivery of electronic services. The introduction of smartphones and Web 2.0+ technology promoted the adoption by and electronic participation of the user in the fourth phase. This phase represents the level of direct interaction with customers.

E-democracy, participatory governance and open data are the future trends listed by the authors. The extensive use of social media is also projected for citizen interaction and training. Voting and electronic electoral campaigns, emergency management with electronic support, participatory governance and open data, in fact, are already real in several countries.

The electronic feature of governance — the decision-making process that defines government guidelines (which is, at the same time, the infrastructure for interaction with citizens and the implementation of decisions and guidelines) — thus encompasses e-democracy, the name given to the use of ICTs to support decision-making, and for improving democratic institutions and processes.⁵ E-democracy encompasses several online/electronic activities,

4 BINDU; SANKAR; KUMAR, 2019, p. 395.

5 RONCHI, 2019a, p. 7.

such as governance, government, parliament, initiative, voting, campaigning, participation, etc. E-democracy, however, should not be seen as a substitute for representative forms, but rather as a complement to it, adding elements of direct democracy and citizen empowerment. In other words, it is not new thing, but simply the use of ICTs to make democracy more efficient.

E-democracy theorists vary in positioning, but most believe that some traditional limits of citizenship in contemporary democratic policies (scalability, time scarcity, community decline and lack of opportunities for political deliberation) can be overcome by ICTs. The idea of citizens acting in associations freely formed in civil society before the government level resembles the old Athenian democracy, but e-democracy updates this, focusing on how political discourse is mediated. The internet appears as an adequate means for the creation of arenas of relatively spontaneous, flexible and self-governing public debates.⁶ And seven are the trends of electronic democracy being developed hitherto:⁷

1. Promotion of electoral campaigns on the internet by candidates for elective positions;
2. Promotion of positions by politicians elected via the internet and communication with their constituents;
3. E-government (i.e. electronic forms for taxation, popular opinion tools, etc.);
4. Use of ICTs to exercise external influence over governments — with a view for attempting to maintain control over governments and their accountability;
5. Sites promoting alternative types of politics or political ideology:
 - a) disseminating the type of information that they believe to be suppressed by governments or discarded and distorted by the mainstream media;
 - b) belonging to defense groups and political organizations for recruiting and organizing citizens;
 - c) interested in fighting traditional politics, and not working within its limits;
 - d) promoting and pursuing special interests in matters of single policy.
6. Sites that influence the voting and decision-making patterns of elected politicians, under pressure from public opinion;
7. Electronic voting, expressed in two parallels: a) online voting; b) electronic ballot boxes.

6 CHADWICK, 2007a, p. 256-257.

7 BEHROUZI, 2006, p. 100-102.

There are also some great positive results and challenges imposed by the new times on Public Administration — and e-government and e-governance seem to be the answers for everyone.⁸ The first of them is the improvement of efficiency, as globalization intensified competition between various actors, and privatizations introduced new demands for public efficiency, being that both globalization and privatizations challenged the efficiency of the provision of public services, causing the tendency to use ICTs.

The second result verses about transparency and accountability. Public agents and officers realize that their information can be viewed online by everyone, resulting in the need to be accountable to the public. And transparency and accountability can be considered the main elements for democratic governments, which can be strengthened by e-governance. And e-governance, defended due to openness and transparency, is also celebrated for the possibility of reducing corruption in public procedures because of the reduction in the level of personal contact. It can also bring the opportunity to eliminate bribery and other types of corruption by eliminating bureaucracy.

Participation and electronic democracy are also great results. Participation is an essential prerequisite for democracy, and in the context of public policies, e-governance is a wide field of opportunities due to the popularization of ICTs, as it provides instruments for involvement and expression in public affairs (e.g. online debates and voting). But despite these tools, genuine participation poses a challenge.

Another great result of e-democracy is the space-time flexibility, for e-governance provides convenience to users and flexibility to the work of administrators and employees — which can be remotely done. It reduces the need for office space, which has associated costs, such as air conditioning and lighting, transportation costs, and there is an improvement in the well-being of employees. However, this flexibility challenges public administration with more complexity, mainly in the execution of tasks that need coordination between different agencies.

The reduction in the use of material resource is another great result. The reduction in the use of materials reduces environmental wear, and improves the use of time and space necessary to carry out public tasks. But public agents are overwhelmed by the requests of customers for their services, as it becomes easier for citizens to use. This increased pressure on public administrators, as citizens do not see the tasks that administrators must perform. Thus, these new processes do not necessarily cause a drastic reduction in the number of employees, for example.

8 KHAN, 2018, p. 137-152.

Perhaps security is a main challenge of e-governance, however. This is because any information leaked by invaders can have serious consequences for States and users. Although this promotes technological development, hackers will try to create other ways to trespass limits. Information privacy of users' information is also a great challenge. This is the responsibility of governments, but it may conflict with the needs of crime prevention.

Reduction of bureaucracy may be also presented as a main result of the implementation of e-governance, as by reducing the size of government, e-governance can reduce unnecessary regulations. But it challenges the assurance of proper service procedures — and violations of due process can increase public complaints. Thus, governments, when implementing e-governance regulation, must simplify bureaucracy without abandoning fundamental principles such as equality, impartiality and universalism in the provision of services.

Furthermore, the increase in the use of ICTs can cause a decrease in the human connection between administrators and citizens, and personal relationships can be abolished. Even though technology enables human connections at a distance, it does not replace traditional face-to-face interactions at all. E-government can thus create a robotic culture, decreasing empathy. Traditional interaction can establish an understanding of the complexities of a person's situation, background and motivation. Thus, governments must offer opportunities for traditional contact, preferred by many people.

E-governance must be focused on the citizen. Being generally oriented towards educated young people and computer experts, one of the main challenges of e-governance is to turn it towards citizenship, also reaching the digitally excluded ones (the poor, the elderly, and the less educated ones). Furthermore, poor countries lag behind the developed world in terms of their ability to use the Internet.

There are also some fundamental challenges posed by local governments. Although they generally lack the resources to develop the technology, local governments play a crucial role in the provision of services. Generally risk averse and lacking in leadership with knowledge, without a qualified team and with poor communication skills, local governments challenge the boldness of e-governance. In addition, they are often inexperienced in dealing with complex problems — which involving privacy, security, ensuring equitable access, technical knowledge of computers, changing relationships with the public, etc. It could be added to that the fact that e-governance requires constant training and learning by employees. To ensure its smooth operation, public administrators must ensure that they have updated technology and adequate personnel. This challenges public leaders, who must create motivations for employees to continuously train and learn.

Finally, e-government provides online participation to citizens dissatisfied with the representative government. Reducing bureaucracy (and unnecessary hierarchies) reduces corruption, and can promote public confidence by rebuilding the relationship with the government. E-governance provides an ongoing process for the participation of people — which, having more opportunities for expression, can rely even more on governments. But they must also create/maintain a free expression environment, otherwise efforts to build trust will be fruitless.

2. E-GOVERNMENT: POSSIBILITIES AND CHALLENGES

Governments are introducing innovations in their organizations, practices, capabilities and in the ways through which they mobilize, deploy and use human capital, information and technological/financial resources to provide services. In this context, the appropriate use of ICTs is crucial in advancing public sector objectives and contributing to an environment conducive to socioeconomic growth. In this process, support for ICTs emerges an “electronic government” (e-government), which means: provision of comprehensive services in Public Administration combined with organizational changes, to significantly improve democratic services and processes and strengthen support for public policies; promoting the quality and efficiency of information exchange; and empowering citizens and public service customers.⁹

E-government can help to transform government into something leaner. It can facilitate communication and improve the coordination of authorities at different levels of government, their bodies and organizations. It can increase the efficiency of operations, simplifying processes, reducing costs, improving research capabilities and documentation and record keeping. In this sense, governments rethink their information flows and processes. Thus, this revolution involves the entire governmental structure, from organizational to personal aspects.

In a far-reaching perspective, e-government aims to use technologies to open up the State to citizen involvement.¹⁰ The ubiquity of ICTs can increase political participation and make the State open and interactive, as an alternative to traditional, hierarchical and bureaucratic organizations, and to the latest forms of providing services similar to the market, based on contracting outside public activity. The government thus becomes a learning organization, responding to the needs of citizens, who in turn influence the Administration with efficient feedback mechanisms.

9 RONCHI, 2019a, p. 94.

10 CHADWICK, 2007b, p. 261-262.

A second, less radical school of thought suggests that e-government does not require greater public involvement in defining service delivery, but indirectly benefits citizens through efficiency and economy gains from reduced internal organizational friction, mainly via automation of routines.¹¹ Networks are also at the center of this perspective, but they are essentially concerned with the potential of the Internet and intranets (internal organizational computer networks) to unite and coordinate the activities of previously disparate government departments and services. In this view, citizens are perceived as consumers of public services (i.e. information about health care, benefit payments, passport applications, tax returns, etc.). This has been the dominant model in pioneer countries.

But the real benefit of e-government lies not only in the use of technology, but in its application for the transformation of the government itself. That is, in addition to the use of new software, it involves complementary changes in administrative practices and processes. Furthermore, the advent of the digital society dramatically widens the gap between developed and developing countries, and even the differences among developed countries themselves — a division positively called “digital inclusion” (empowerment that digital processes offer to citizens) and, negatively, “digital divide” (disparity between those who have access to better services and those who do not). In fact, in relation to developing countries, the big challenge is to discover how to harness the power of ICTs to increase State capacity to govern, to serve their citizens and to improve conditions for human development.¹²

The relationships that can be established with e-government are classifiable into three types:¹³

- *Between government and government (G2G)*: interactions between different government agencies;
- *Between government and business (G2B)*;
- *Between government and citizens (G2C)*: interaction between government agencies and citizen(s).

One of the main goals of e-government is to help citizens (especially those who need special assistance to achieve welfare).¹⁴ So far, the simplification of relations between the target users of the services and the government must be taken into account. The 1990s were characterized by the adoption of e-government. According to the Organization for Economic Cooperation

11 CHADWICK, 2007b, p. 261-262.

12 RONCHI, 2019a, p. 95-96.

13 RONCHI, 2019a, p. 99.

14 RONCHI, 2019b, p. 27.

and Development,¹⁵ e-government can also bring about the modernization of administrations and promote economic policy objectives.

Very important issues to be considered when creating e-government solutions, in relation to fundamental rights, concern to the limits between e-government and privacy services and the long-term preservation of digital files.¹⁶ The increasing use of ICTs makes individuals more traceable: smartphones, sensors, online transactions, instant messages and e-mails, while very useful, reduce privacy — and such issues can influence the (in)success of e-government. As for long-term preservation, digital fragility is one of the main current concerns, and an appropriate assessment of long-term conservation and disaster recovery policies is an additional assessment parameter, playing an important role in the event of turbulent events and disasters — when there is a risk of losing public files.

Obiter, the possibility of (in)success of e-government systems, in addition to legal issues, depends a lot on cultural, organizational, infrastructural, technological, behavioral and user skills issues, and not just on the design of the interaction. In other words, a significant population of citizens must be willing and able to adopt and use online services, as well as to develop the administrative and technical capacity to implement e-government applications to meet citizens' needs.¹⁷

Twizeyimana e Andersson¹⁸ found three broad and overlapping dimensions of e-government public value: improvement of public services, improvement of Administration, and improvement of social value — the first of which (improved dimension of public services) influences both the other dimensions. In other words, when public services are improved, the Administration is (or at least is expected to) also, to some extent, improved — and this occurs because it starts to aim at a better provision of services to the public (that is, citizens in their different roles: politicians, taxpayers, companies etc.). Likewise, when public services are improved, improvement in social well-being is also expected. Therefore, through electronic services, e-government is expected to improve services and, in turn, the administration and well-being of society.

In addition, the public expectations of e-government are shown, for the authors, a lot in the direction of improving relations between citizens and the State (G2C), with implications for the democratic process and for the government structures themselves. Finally, in the authors' view, government policies and actions must be evaluated based on their production of public value — which, in terms of e-government, means the impact it causes on government

15 ORGANIZATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, 2003, p. 2.

16 RONCHI, 2019a, p. 105.

17 RONCHI, 2019a, p. 113.

18 TWIZEYIMANA; ANDERSSON, 2019, p. 173-174.

operations, actions, policies and services to citizens (which, therefore, also reflects on the success of e-government).

It should be noted, however, that despite all the values considered normatively necessary, Sundberg¹⁹ argues that several researchers are concerned with the fact that the impulse of many e-government initiatives was the technology adoption and evolution, not central government values — which may have caused a democratic weakening, in addition to other risks:

- *IT security*: scholars use applied science to predict and prevent technical threats (viruses, intrusions, etc.) to e-government systems.
- *User adoption*: risks are generally addressed scientifically through the application of technology acceptance models combined with statistical analysis, in order to predict and to understand why citizens use government services online or not;
- *Implementation barriers*: case studies make it possible to understand the complexities in the form of benefits, barriers and risks associated to the development and implementation of e-government solutions;
- *Politics and democracy*: this category concerns to risks associated to the increased use of digital technology in the public sector and in society in general. Such risks are not easily captured by traditional forms of risk management due to their ambiguous nature.

It should be noted that apprehending and understanding these risks can be determining factors for the successful adoption of e-government systems — not only with regard to quantitative, numerical factors, but also to other qualitative ones, such as measuring the improvement or worsening of democratic systems with their adoption.

3. THE NORMATIVE REQUIREMENTS OF AN E-DEMOCRACY

The technological revolution that will transform representative democracies through collaborative and communicative Internet resources is yet to come, according to Shapiro.²⁰ In this sense, the author derives, based on values from the Declaration of the Rights of Man and of the Citizen of 1789 (DRMC/1789), foundations of the e-democracy of the future. The first of these is popular sovereignty (art. III of DRMC/1789). In this sense, we have that the internet communities today are dictatorial (being omnipotent their administrators). Within them, rules are enacted (often in secret) by owners (their masters), who judge members for violating them and carry out the punishment.

19 SUNDBERG, 2019.

20 SHAPIRO, 2018.

Like servants, members work for the financial benefit of the master, without possessing (intellectual) property, civil or voting rights. They have no ownership or vote on their remuneration (tax), rules of conduct or application of the community, or on the election of the leadership.

In the context of an e-democracy, sovereignty requires ownership. Advances in blockchain technology provide the first example of how members of an e-democracy can be sovereign, as they allow the replacement of the administrator by a smart contract, that is, an autonomous, incorruptible, transparent and persistent software agent, programmed to obey democratic decisions (through votes, not electronic coins). But technical reasons still require the evolution of tools related to blockchain, so miners do not have the possibility to control and subvert the system by joining forces. In other words, it is necessary to develop a technology for decentralization and independence of owners.

The second requirement, on the other hand, is equal voting rights (DRMC/1789, arts. I, III, IV, VI, XII-XIV). E-Democracy consists of digital identities, not people. Requiring that a digital identity equals a vote is not enough, as most existing systems allow an individual to create as many digital identities as they want.

A new notion of digital identity must be conceived, one that is true, unique, persistent and owned by the individual it represents. Otherwise, the owner will be able to vote on behalf of a non-existent person, to give several votes, to terminate and eliminate a mandatory identity and to acquire a new one, which is free of obligations (evading liability), or to grant the owner of several identities extra votes. Although veracity is already a common requirement, exclusivity and persistence are not (it is possible, in electronic systems, for a person to obtain several credit cards, cell phones, e-mail accounts, etc.). Numbers of State registries, complemented with biometrics and incorporated into digital cards can give exclusivity and persistence to digital identity, but in international and globalized scenarios (where e-democracy could also operate), this could become impossible, since there is still no single “global citizenship” system.

Freedom (arts. I, V, X and XI, DRMC / 1789) must be analyzed in its various features. Expression must be granted within the limits of the law — therefore, it requires a Constitution that determines these limits and a Judiciary that imposes them. The meeting can be carried out using a software architecture that allows the unimpeded formation of an e-democracy within another. To defend the subsidiary principle, each subsidiary democracy must be able to make decisions that belong to it, within the law.

As for transparency (arts. II, XIV and XV, DRMC / 1789), the structure of an e-democracy, its rules of conduct, its underlying technology, the code of its software, the decisions of its communities, the actions of its delegates and

their finances must be transparent to all — and, in an extreme scenario, resisting an oppressive regime may require transparency that, in such an environment, would be compromised.

Respect for property and privacy (arts. II and XVII, DRMC / 1789) demands the protection of the ownership of private data, and that its disclosure to third parties occurs only when necessary. Ensuring voters' privacy and preventing their coercion requires advanced cryptographic techniques. In practice, the need for data privacy is confirmed, for example, with the study by Perez et al.,²¹ which revealed that participants in discussion groups on identified political issues (without anonymity) found it more difficult to express themselves in a discussion than participants in anonymous groups — that is, the lack of anonymity can inhibit users.

With regard to justice and responsibility (arts. I, IV-XIII, XVI, DRMC / 1789), a democratic mechanism is needed to establish fair law and order.²² Its components must be a Constitution (subject to democratic amendments) and a democratically elected Judiciary that governs under that Constitution. E-democracies will be criminally attacked for impersonation and identity theft, voter coercion, misinformation, hate crimes and other offenses — all of which can be remedied by the Judiciary through public notification or condemnation, temporary gagging and pecuniary penalties. The suspension/expulsion would violate the fundamental right to vote, which could be considered too extreme. In a future where an individual integrates several e-democracies, which will have a joint judicial system, the temporary limitation of participation in all these democracies simultaneously, analogous to prison time in the real world, can be really serious. But, in order for such punishment to be effective, responsibility must be guaranteed: only the veracity of the offensive digital identity is insufficient, and it must also be unique and persistent, so that the aggressor evades the punishment, abandoning an identification in favor of another.

Finally, Shapiro²³ places a requirement external to those of 1789 — hysteresis (the system's ability to preserve its properties even in the absence of the stimulus that generated them). This is because, at that date, the ancestors of democracy did not foresee the immediacy with which the general will can be verified on the Internet. Eventually, the general will must prevail so that we do not violate sovereignty. But it must go through reasonable checks and balances until it happens, so that the dynamics of the crowd do not prevail. While an electoral cycle gives natural hysteresis to today's democracies, electronic democracies require that hysteresis be designed, so that changes in people's

21 PEREZ et al., 2018, p. 295.

22 SHAPIRO, 2018.

23 SHAPIRO, 2018.

opinions may not immediately result in decisions (i.e. minimum periods for drafting and deliberating proposals; minimum endorsements for proposals to be considered; minimum quorum for a decision to be binding; and special majority required for certain actions).

The risks resulting from an e-democracy are prevalent and poorly controllable, because even with the latest technology there is no total protection against risks in the virtual world. It is necessary to rethink the classic form of a democracy, and the concepts for an e-democracy must be reformed — and it is therefore highly recommended to modernize the existing democratic systems, which can be summarized as follows: i) strengthening of civil society by increasing whether representative participation (i.e. more possibilities of direct democracy in representative democracies); ii) development of fundamental rights; iii) increase of social security for the population (e.g. with the guarantee of a basic lifetime income); iv) establishment of a socialization based on knowledge; v) building a sustainable society through a new national, supranational and global ecological agreement.

An e-democracy should, even with the best technology hitherto available, be seen only as an additional useful tool for the transmission, sharing and collection of information. An e-democracy that supports and executes direct decisions and procedures cannot be recommended nowadays, mainly because any activity carried out virtually while participating in democratic processes and with a great impact on the citizen's life is in danger of being attacked, supervised or manipulated decisively by interested parts. Recent cases of cyber attacks, invasion of privacy and surveillance against population support these arguments. That is, an e-democracy is currently unable to meet the two minimum democratic guidelines and standards for decision-making in a democracy — *to be free* and *to preserve privacy and secrecy*. This difficulty, in particular, can have a far-reaching impact on the political system of democracy, weakening common welfare and, in the long run, undermining the quality of life of a democracy founded on freedom and equality.

But Shapiro seems to adopt a certain technological fetishism (as he seems to reduce democracy to a computing problem).²⁴ And such a fetishism conveys the idea that, some day, e-democracy will be “reached”. But it is useful to remember that democracy is and will always be a work in progress, not an end — therefore, it is definitely imperfect, as it is a set of rules and procedures animated by humans, necessarily open and closed, restricted and free. And it includes unsanctioned activities (e.g. civil disobedience and protests) as well.

Despite this criticism, he sees the need for democratic experimentation with new technological forms for evolution to occur. And such experimentation

24 SCHULER, 2018, p. 35-36.

is not just a technological improvement, but the need for it to be provoked by its interaction with real people — who, in their most varied daily tasks, must assume important roles in e-democracy. Thus, computer professionals who develop the tools should have as goals, in addition to technical improvement, the fundamentals of social and cultural strengthening, access to information, deliberative dialogue and the inclusion of the excluded in the debate (which presupposes efforts to guarantee the mixture of people, policies, institutions, processes, education towards technology). Technological systems of information, opinion formation and deliberation are needed to help people to be more engaged, informed and skilled in public problem solving (that is, “civic intelligence”).

Furthermore, basing e-democracy only on the democracy as understood in the 1789 Declaration is a departure from the scenario, as the institutional environment of that time hardly resembles today’s ubiquitous monopoly digital empires with global reach, massive data mining and influence on opinion (mainly through the work of digital mercenaries).

Theoretically, e-democracy is based on models of participatory and deliberative democracy — but the far-reaching and enthusiastic expectations of a fundamental transformation of modern democracy through the use of online tools for political participation and public discourse are disappearing after two decades of experiences with e-democracy, making room for more conceptual and analytically robust, and less technodeterministic positions.²⁵ However, e-democracy will add new ways of communicating between citizens, and between representatives and their constituents — changes that increase online political processes and affect the modes and conditions of offline political processes in various ways. These new forms of communication depend on the wide variety of applied e-democracy tools, the nature of the political process in which they operate and the skills, demands and expectations of those involved in their application.

Social media play an increasingly important role in civic life, given that such communication opportunities are seized by social movements, governments and groups sponsored by them. However generally the transformative power associated with social media is still a potential possibility, not a reality, especially regarding the established patterns of political participation. Thus, social media have ambivalent effects for democratic politics, allowing for more inclusive involvement and the articulation of unrepresented perspectives, while offering powerful opportunities for threats, distortions and disinformation.

The understanding of e-democracy must go beyond technical tools and their evolution: it must go through the *supposedly growing role of personal*

25 LINDNER; AICHHOLZER, 2020, p. 38-39.

and emotional perspectives in politics and design ways in which democratic institutions respond to the transformation of democracy due to emotional communication. And phenomena such as solipsist closure, echo chambers, deliberate misinformation and computational propaganda — sometimes causes, sometimes effects of this emotional communication — threaten the functioning of the public sphere in democratic contexts, increasing the need for effective educational, regulatory and technological responses.

4. EXPERIENCIES IN E-GOVERN AND E-DEMOCRACY

In this last item, a study is made about practical experiences in e-government and e-democracy. Initially cases will be analyzed in very varied contexts in other countries (Eastern Europe, Middle East and Ibero-American countries, mainly). Soon after, the scope is concentrated in the Brazilian context, in similar experiences developed in the Brazilian Federal Government and in several municipal contexts. It should be noted that, far from intending to exhaust the possible spheres of analysis of e-governance and e-democracy, the study that is to be described has the scope of illustrating with experiences the theoretical notions developed hitherto, in order that abstractions find, in practice, interesting achievements that contribute to the study.

Interesting is the study by Dmytro Khutkyy²⁶ on the implementation of e-government and e-democracy in Eastern Europe, comparing Belarus, Moldova and Ukraine. In Belarus, the public uses electronic resources and petitions, is interested in open data about the state, employs online and social media for communication and political mobilization. But the offline impact of this use is still small, and its results are generally not binding.

The Moldovan government has announced electronic consultations (with small public use and impact). There are resources and electronic petitions (but with few official statistics). Crowdsourcing and crowdfunding are hardly used for political purposes. There is good development of open financial public data, as well as popular online anti-corruption monitoring tools (but it rarely leads to trials and sanctions). The tools available for electronic participation are underutilized by citizens and authorities, who do not respond to public opinion on policies, even if this leads to protests.

In Ukraine, online mobilization has evolved into democratic online participation in governance — with petitions and electronic resources widely used by citizens, who believe that such means implement direct democracy. Electronic consultations are less frequent, with less thorough deliberations and highly uneven effects on policy making. There are cases of binding electronic voting for municipal development projects and binding electronic elections for public

26 KHUTKYY, 2019.

councils and commissions. The participatory budget (with several digital stages) is the most empowering participation tool. Online collaborative platforms permeate the dialogue between citizens and authorities. There is a vast and growing field of open data analysis (mainly in finance and public procurement), and investigations by journalists force corruption schemes to close.

Of the three countries, Ukraine has the largest number of electronic participation instruments, covering the entire policy-making cycle: agenda setting, policy formulation, decision-making, implementation, monitoring and control. It also has high rates of participation and reasonable rates of implementation, higher in non-binding forms and lower in binding forms of electronic democracy.

In an interesting comparative study about e-government in very peculiar locations (Estonia, Singapore and Curaçao) Goede²⁷ concluded that Estonia's e-government provides a rational basis for interaction between citizens and government to give priority to their interests, and this is an antidote against populism. And e-democracy is made there, through a model of direct, participatory democracy, in which the weight of political power is transferred from the government to the citizen. Digital platforms set a high benchmark for transparency and accountability. In Estonia the power-knowledge regime is centralized, a condition for a firm national e-government policy — then, a unique image of Estonian citizens is produced. The Estonian citizen who emerges from e-government is depoliticized and separated from a social context, but strongly politicized and linked to a specific ethnical-national community.

Singapore tells a different story about e-democracy and e-government. The Estonian model is only transferable if the government of the other country is willing to deal with full transparency and accountability, because e-Estonia is a new form of democracy, where power returns to the people. The cases of Estonia and Singapore prove that e-government is possible in small countries, which are in an advantageous position. For e-government, developing leadership and vision are fundamental conditions, in which the government must take the lead and develop a coalition with the private sector. Education must be a priority. A technical and legal infrastructure must be implemented. E-government requires a specific mindset: it is a culture of human relations, trust and transparency in government and others. These conditions are currently absent in Curaçao.

Interesting, because it takes place in a context totally different from the others analyzed here, is the study on the Dubai Economic Department (DED), which explores the use of blockchain technology to provide integrated and perfect services to the public.²⁸ Initially, the researchers considered that e-government

27 GOEDE, 2019, p. 226.

28 KHAN; SHAEL; MAJDALAWIEH, 2019.

evolves on a four-stage escalation: emerging, enhanced, transactional and connected information services. After mapping the DED strategies, the results show that it has matured in this logic. In addition to supporting the Dubai strategy, it uses blockchain technology for the alignment of the commercial registry and for unifying services for the licensing authorities in Dubai.

Blockchain helps DED to provide secure, distributed and transparent infrastructure and services, which will be extended to other government and private data subscribers (banks and other licensing authorities) who sign data from the Unified Business Registry (UCR) registry for their commercial transactions. This transformation will help the DED to create efficient data sharing processes within government and private companies. By testing the unified corporate registry on the blockchain, DED is transforming its business operation models, thus taking a 360 degree view of all licenses in Dubai. This will make it easier for participants to enforce common business rules, as required by law. Investors will benefit from simpler and faster registration with different licensing authorities. Any changes made to investor data will be synchronized between different authorities automatically and instantly.

According to Pinho et al.,²⁹ studies with a political approach, which defend, in addition to efficiency, the potential of e-government for the purpose of deepening democracy in Brazil, rarely explore the concept of e-democracy. Only since 2011 has this notion appeared in Brazilian research, which demonstrates that e-democracy is still under construction. On the other hand, the area has developed analyzes from a political perspective when addressing participatory experiences in various themes of public policies, such as in the areas of health, education, environment, elaboration of Executive budgets (i.e. PPAs and participatory budgets), consultations among others. Or, yet, the area does not shy away from political analyzes, embracing demonstrations in various areas of the public sector.

But the most recent studies on the political side are beginning to point to more structuring transformations in public administration, with regard to aspects of e-democracy. The Digital Participatory Budget (DPD) of Belo Horizonte (with an implementation that required a series of managerial decisions necessary for its realization, but aiming to increase the value of popular participation), the Digital Office of the Government of Rio Grande do Sul and the e-democracy of the Chamber of Deputies already points to the possibility of innovation in the public sector brought about by digital initiatives. All of these examples point to cultural changes in the bureaucracy, in the administration of public affairs, strongly guided by democratic values.

29 PINHO et al., 2019.

Pinho and Gouveia³⁰ consider that, because the internet is becoming more and more fundamental for the construction of democracy (by providing the inclusion and formation of social groups without any distinction), it suggests government tools for popular use, easy to access and understand, aiming to assist in the fight against corruption, which presents itself as one of the main governance problems in Brazil. In this sense, the Brazilian State has, in digital governance, a platform launched in the year 2000, whose structure comprises: letter of services to citizens, electronic processes, ombudsman channels, and consultation of budgetary data.

Due to technological developments, they consider that new types of use are likely to be developed to improve existing services, as well as the inclusion of new demands by government institutions to serve citizens. To be used significantly, e-Gov needs publicity, guidance and education of the population on how to interact with the government - which, in addition to being a right, becomes a duty in the current context, which requires, on the part of administered, the monitoring and inspection reaction.

Illustrating this problem, in a comparative study on the portals of the City Halls of Curitiba, Belo Horizonte, Salvador and Porto Alegre,³¹ useful examples for the continuous improvement of the public transparency process through e-government were identified. The panorama of e-government services in such cities was studied, showing that there is inequality in access to information by the population and, at the same time, how interoperability — the ability of two or more elements to exchange information with each other and use the information exchanged, which provides several benefits, improves the problem of isolated solutions, reduces costs and integrates the participation of the agents involved and improves access to information, making problem solving faster — can solve the problems found on the portal of the Municipality. In this sense, to increase transparency, credibility and connection with the population, it is necessary to work at all levels of e-government.

Standardization in e-government systems is a necessity, in order to facilitate the exchange of information between the secretariats, saving the citizen from a lot of bureaucracy in the processes involving the City Halls. But the adoption of a standard encounters obstacles (mainly due to the number of agents involved in the process, the cultural, political, economic and social diversity among the agents). Thus, it would be necessary to create its own software that would mitigate these differences and maximize efficiency in relations between companies, citizens and the State, in addition to reducing political costs.

30 PINHO; GOUVEIA, 2019, p. 230-231.

31 SILVA; KUMEGAWA; VASCONCELOS, 2016.

Another serious problem identified in relation to efficiency is the digital exclusion, since most of the Brazilian population is still far from using the facilities provided by ICTs. There are already government inclusion programs, but the regulation of universal access to the internet and the implementation of services provided in online environments. In addition, government communication to society, by expanding existing channels, should also be improved.

The research by Salgado e Aires³² also dealt with e-government in the Brazilian municipal scenario, restricted to 46 (forty-six) municipalities in the State of Rio Grande do Norte. Their research has shown that e-government has been developed by such municipalities in the State in question, but that many advances are still needed — since they have proved to be non-compliant with the Brazilian Access to Information Act. In this context, a good performance was identified in relation to the websites of such municipalities in relation to: existence of content search tools (which allow access to objective, transparent and clear information, and in language that is easy to understand); automated access by external systems in open, structured and machine-readable formats; detailed disclosure of the formats used for structuring the information (however, half of the sites have not yet done so); and updating the information available for access.

But the performance was considered inferior in the following categories: possibility of recording reports in several electronic formats (i.e. spreadsheets and text), making it difficult for users to analyze and disseminate information; location indication and instructions that allow the interested party to communicate with the organ or entity that owns the site; basic precept of access to information; and adoption of necessary measures for accessibility of content for people with disabilities.

At the Federal Administration level, Vieira's study is quite elucidating — and in keeping with the one presented above at the municipal level.³³ In this case, the Brazilian government has a set of actions that strengthen and effect the existence of e-government — from the publication of data for consumption by society to the organization and internal management of structural government systems. In some cases, the services that make up the Brazilian e-gov have problems (i.e. placement of information dispersed between various sites and indication of invalid and/or unavailable links). But instruments of citizen guidance in the use of these services are also identifiable (i.e. tutorials and manuals that target the software development community).

The government still lacks to publicize its electronic platform with more consistency and to stimulate the society in proposing actions of integration

32 SALGADO; AIRES, 2017, p. 113.

33 VIEIRA, 2016, p. 30-32.

with governmental data. In this sense, the Public Software Portal could have a larger catalog of solutions in information systems. The Free Software Portal could present more reports of experience in migration and development of free software. The Open Data Portal could have a more representative number of applications developed by the community to consume the available data. And technical training actions should be taken with greater emphasis, to prepare managers and society to use the Brazilian federal e-government more appropriately.

CONCLUSION

After all the descriptive and normative considerations about technological, legal and political trends related to e-democracy, it is possible to reach some conclusions. Firstly, e-governance emerges as a trend implemented in several countries as a kind of modernization responsive to the development of ICTs, and it demonstrates the attempt to reconstruct more individualized (and less bureaucratic) government procedures, using behavioral data of citizens collected by ubiquitous techniques as a means of managing social knowledge. But cultural diversity and other contextual variables and the degree of regionalization of application demonstrate that there are at least three models of e-governance implementation — from the most communal (most present in Continental Europe and Scandinavia), passing through another more inspired successful developments in e-commerce, with a view to shrinking the size of the state (USA, UK and New Zealand), reaching a model that combines the trends of e-commerce success with a great institutional responsibility for implementation of the infrastructure that provides for the implementation of e-governance tools (Southeast Asia).

E-government is the use of e-governance to make government more efficient, and it seems to be very focused on the welfare of citizens (although e-government also encompasses business and other government agencies). But there are many contextual issues to be analyzed in order to evaluate the (un)success of the e-government implementation, since it is not just about computerizing the Administration or modernizing software — it is, rather, a real transformation in the conception of the government and its internal and external relations. Furthermore, this context must be favorable with regard to organizational culture, economic and technological development, and the capacity of citizens to absorb such changes. In fact, as far as citizens are concerned, it should be questioned to what extent personal data can be used without offending individual privacy, as well as the capacity to preserve that data in the event of harmful contingencies (war conflicts, natural disasters, etc.) that threaten their file systems.

Knowing the risks of adopting e-government (either in terms of quantitative effectiveness or in terms of democratic quality) is crucial to its success. And understanding aspects related to technological security and the acceptability of its use by citizens, the internal and external barriers to its implementation and the improvement / worsening of the democratic character of the group to which it is intended must be the minimum for the increase of such systems, in a democratic way.

Individual sovereignty and equality, freedom, transparency, property, privacy, justice and responsibility, in addition to the hysteresis of the system, are identifiable principles already in the 1789 Declaration of Human and Citizen Rights — which, however much it has to be recontextualized and complemented (under penalty of atavism), it can be an interesting basis for the creation of e-democracy tools and systems. In this sense, technologies already in vogue (such as blockchain) can serve as a basis for future technical developments. The requirements of democracy must be thought in conjunction with ICT system architectures, in a transdisciplinary way, so that a democracy itself, according to the knowledge already built socially and historically, can be maintained in an electronic environment.

An e-democracy that guarantees freedom and equality cannot be established, with the current stage of technological development (the media and history are full of examples of disrespect for these principles). Furthermore, the creation of electronic instruments for popular decision/deliberation does not mean e-democracy, but rather an instrument for its achievement. This is because a democracy needs a strengthened civil society, direct participatory means (even if representative institutions are maintained), fundamental legal instruments in expansion (in the civil and social senses), with a socialization based on knowledge and a new feasible agreement of ecological sustainability.

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