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Public Access to Information for Sustainable Development

José Irivaldo Alves Oliveira Silva
Department of Public Management, Federal University of Campina Grande,
Campina Grande, Brazil

Definition

Public access to information is the unrestricted concession to any information necessary for decision-making by citizens, groups, or communities, which mainly relates to it or to issues related to the conduct of state agents or actions originated by the state. In this way, we will discuss public transparency, types of public transparency, the importance of access to qualified information, the impact of information on the responsibility of state agents and on the formation of full citizenship, the levels of this information, and the relevance of accessible information for intelligent public management and for the formation of smart cities to materialize the sustainable development in what concerns to health security, to the environment, to poverty eradication, and to anti-corruption within the scope of the sixteenth goal from the Sustainable Development Goals (SDG).

Introduction

Information has never been more important than it is today in a technology context with two basic pillars: access and speed. This entry explores the most sensitive aspects in relation to public access to information, as it is fundamental for the formation of citizenship and decision-making in different spheres of society, in both public and private spaces. It is possible to state that the ways of accessing information are diverse and within reach of many people, notably through equipment such as cell phones, tablets, and computers.

The way of accessing information has changed rapidly, and thousands of applications are available to help citizens gain access to data about themselves and their most private interests or the ones which they have a more collective relationship. However, it is necessary to think about public access to information in a context of great urbanization and the search for a new model of cities, which main characteristic is the interconnections between citizens, the thousands of data that are moved, and a resilient and healthy environment (James et al. 2020).

It is important to highlight that the application of innovative technologies, especially in the field of information and communication technologies, is also essential for a model of a smart, inclusive

city with an intelligent society. The latter is characterized by a high level of integration (Wiesmeth et al. 2018). In addition, the concept of public access to information is based on its conception as a fundamental and human right, being the basis of modern democracies, with provision in the constitutions of countries that are considered to be under the rule of law (Jeffrey and Staeheli 2016).

Khan and Peter-Anders (2018) also understand that this model of smart cities is based on an increase in the volume of information and the movement of that information which is exchanged in billions of data and has an improved governance and participatory processes to develop adequate public services, transport and energy infrastructures that can guarantee sustainable socioeconomic development, healthy environment, improved quality of life, and intelligent management of environmental and natural resources.

In addition to all this, the way in which public access to information is given can be added as an element of this improved governance. Cities are large collectors of increasingly massive and heterogeneous amounts of data (text, video, audio), some of them are static, but increasingly larger parts are in real time. This context potentiates an increasingly common reality of big data, being strategic especially when thinking about public access to this information, considering the volume, speed (generation in real time), variety (extremely heterogeneous), veracity, and value (very useful for business apps and research) (Cesario 2019).

Thus, the intention is to update this entry with these new elements of contemporary society in which billions of information travel through the Internet and there is an increasing need to increase access while protecting information from cyberattack and other innovations that threaten this extraordinary set of information. Throughout the text, a current analysis of the meanings of public access to information will be sought, with an emphasis on the role of technology and the state, notably public administration, and the role of the citizen, highlighting its protagonism in this process.

However, we cannot forget that access to information is fundamental and works as a facilitator to freedoms protection, health promotion, environmental protection, poverty, and corruption eradication, which are essential dimensions to sustainable development in the sphere of the Sustainable Development Goals (SDG), notably the sixteenth, which advocates the security of public access to information and the protection of fundamental freedoms, in conformity with the national legislation and international agreements. Technology is a mean, not an end by itself, to the realization of these fundamental rights.

Public Access to Information as Right and Privacy

Access to information, transparency, and accountability are the pillars of the modern democracy – a concept named right to information is formed, reinforcing the sixteenth Sustainable Development Goal for the construction of environments of peace and justice, according to the principles of sustainable development. Currently, several countries have laws that deal with information that should be made available to the public, information that should be stored in a transparent way and made available in a way that is accessible to the population. It is important to understand that, in public management, information needs to be as transparent as possible. However, there is private information that is not available and can be protected due to people's privacy. In the case of companies, this information may relate to industrial secrets that are legally protected. Public authorities also have information of strategic nature that is generally classified as national security, and not everyone has access to it. The European Union, for example, is implementing a directive for the entire bloc of associated countries to be applied mainly to operators of essential services and providers of digital services that are fundamental to the functioning of society. Essential services may be linked to health, water, sanitation, banks, transport, and the energy sector, to name a few examples, which justify a greater protection of their data in the face of the

possibility of cyberattacks, and their duty to issue report and general data that needs to be disclosed (Markopoulou et al. 2019). Information under the state custody must always be public, considering there is always going to be exceptions according to the level of national security and the country's strategy.

The Brazilian case is paradigmatic, as it defines the confidentiality of information as an exception, being a type of general publicity followed by the entire public sector and access to information of fundamental right of the citizen. Article 23 of law no. 12.527/2011 establishes that information may be confidential because it is essential to the security of society or the state, if they endanger national defense and sovereignty or the integrity of the national territory; harm or jeopardize the conduct of negotiations or the country's international relations, or those that have been provided in secret by other states and international organizations; endanger the life, safety, or health of the population; offer a high risk to the country's financial, economic, or monetary stability; harm or cause risk to the Armed Forces' strategic plans or operations; harm or cause risk to scientific or technological research and development projects, as well as to systems, goods, and installations or areas of national strategic interest; endanger the security of institutions or senior national or foreign authorities and their families; or compromise intelligence activities, as well as ongoing investigations or inspections, related to the prevention or repression of infractions (Brasil 2011). In this model, the responsibility for the information basically rests with the public authority, which must provide the protection of confidential information and disclose information that is not. The private sector is responsible for responding to requests from individuals about the information in their custody.

It can be said that this access is not full or absolute. It is not just about access to information from the public administration, but also from other state powers or sectors such as the judiciary and the legislative, but with the same rule that restricts access to some sensitive information, such as privacy and the rights of third parties. However, access to this information related to

state decisions helps society to be able to carry out critical control of public activities and services, real accountability, so that governments are responsive and ready to be accountable for their activities (de Santana and Pamplona 2019). In this way, the information needs to be accessible, which means employing facilities so that the citizen does not find it difficult to locate and get the information they want. Thus, what will define whether a piece of information is public or not will be its purpose and content.

Once again, the Brazilian case can be cited in view of the need to think of information as data that is currently stored in a virtual way and that need greater legal protection. Thus, the Brazilian parliament approved the General Law on Protection of Personal Data n° 13.708/2018. This law is based on the following items: respect for privacy; informative self-determination; freedom of expression, information, communication, and opinion; the inviolability of intimacy, honor, and image; economic and technological development and innovation; free enterprise, free competition, and consumer protection; and human rights, the free development of personality, dignity, and the exercise of citizenship by natural persons. Therefore, in the Brazilian case, information can be in a private and a public sphere, and both of them have the right to protection and respect for its content, and in the case of personal information, it is in the sphere of intimacy, which establishes limits and possibilities of punishment for those who exceed these limits, submitted to international treaties and the International Declaration of Human Rights (Rodriguez-Garcia et al. 2019). The information is in a sphere that allows everyone access; however, it must be protected from cyber invasions and possible changes in its content by anyone without proper control from its source. This is very important in the current context in which there are social networks in an environment of democracy and freedom of expression and information is dispersed in several channels, making it even more essential to check the source of the information and its veracity.

In this case, the law made by parliaments will indicate what information will be public and who will be able to classify the information as secret, or

of restricted access, in short, information that will not be public, but of restricted access. In Bulgaria, the law gives ample scope to the concept of classifying authority, allowing any signatory of the document to classify it. Also, in that country, few documents referring to the old security service are available in the National Archives. The Czech Republic passed a legislation that allows citizens to obtain personal files prepared by the Communist secret police. In the United States, the Information Security Oversight Office (a division of the National Archives) oversees the classification system. In a survey carried out in 2004, it was found that 51% of the documents examined were erroneously classified. In Germany, the Stasi Records Act (1991) authorized access to secret police files from the former Democratic Republic of Germany (GDR). Material was made available that was produced between 1949 and 1990, consisting of approximately 28.400 audios, 3.000 films, and 1.6 million photographs (Schneider and Xavier 2018).

Access to Information Laws in Countries

Some indicators are used to analyze the level of access to information, such as the outstanding Global Right to Information Rating. It was created by the Centre for Law and Democracy, a Canadian nonprofit organization, which aims at promoting, protecting, and developing human rights that are grounding for democracy, such as freedom of expression, government participation, and access to information. It has 61 indicators which are applied on the analysis of legal texts about access to information, in terms of seven macrostructural aspects: right of access; scope; procedures for information request; exceptions; appeals; sanctions; and promotion measures. Figure 1 demonstrates the current panorama of access to information around the world, considering a methodology that took 61 indicators into consideration, resulting in an interval between 0 and 150, in which the higher the score, the higher the level of access to information in these countries.
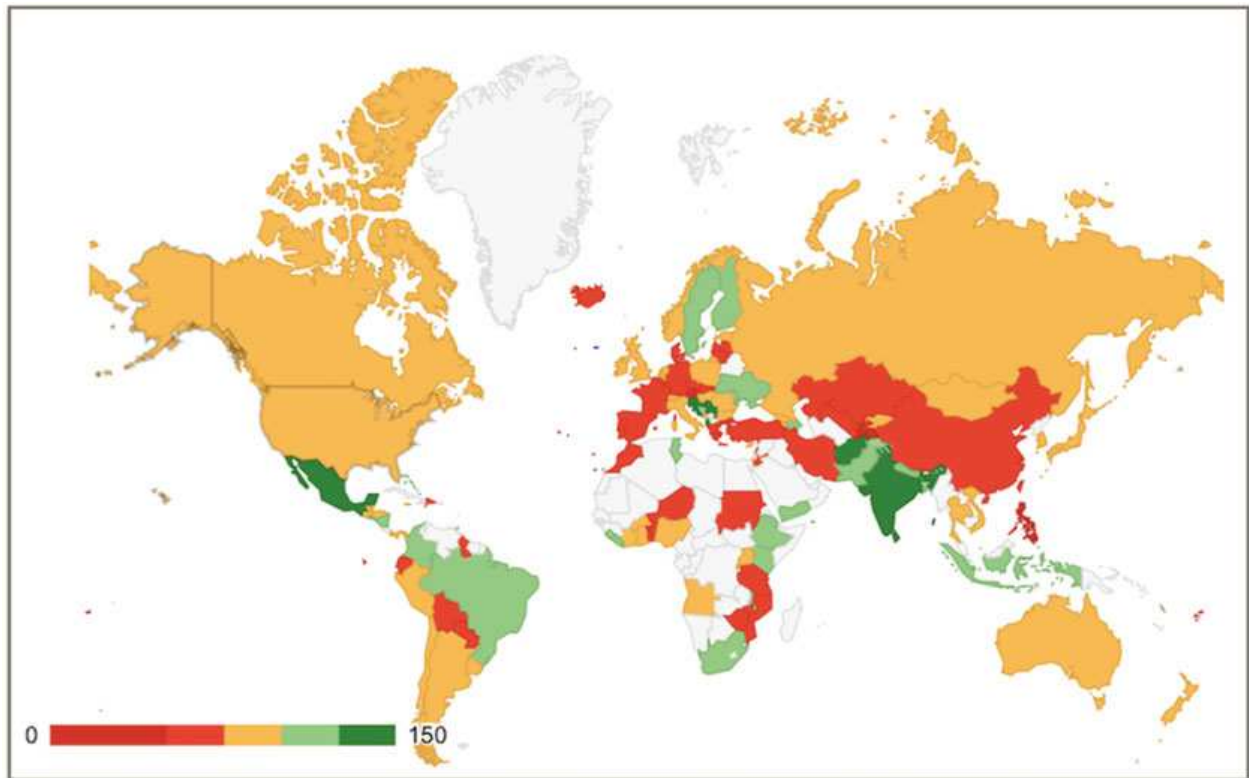
Public Access to Information for Sustainable Development, Fig. 1 Access to information laws around the world. (Source: Global Right to information Rating (2020))

According to Eirão and Leite ([2018](#)), the worldwide panorama demonstrates that there are diverse situations according to the continent. The European continent has 41 access to information laws; the American has 23 laws; Asia has 21 laws; Africa has 14 laws; and Oceania has 3 laws. This indicator does not demonstrate the degree of implementation of these instruments yet, which is crucial to evaluate access to information as a booster of not only a formal but a real democratic system. Figure [1](#) demonstrates exactly countries that have laws, but that information is not as available as the other indicators.

## Privacy Laws Across Countries and Big Data

The right to information is a human right and part of the Sustainable Development Goals; therefore, it will be fundamental to think about data security and about ensuring privacy, which is also a fundamental right (Cancelier [2017](#)). A society cannot be effectively free without access to information and assurance of privacy of personal information, mainly in a context of great flow of information exchanged between people, institutions, and other organizations, through the worldwide web or other means. Both public access to information and privacy are groundings of a democratic state. On the previous items, it was possible to verify the example of the legal framework of information management on the Internet, as well as the laws that ensure access to information, including permissions and limitations. In a context of great flow of information from diverse origins, it is essential that citizens and corporations trust the data protection system. In this way, countries need legal framework that can provide the proper protection of its public and private data.

Public and private information gains importance, especially its protection, at a time when the volume is growing in an environment dominated by big data. Laney ([2001](#)) defined big data as: "high volume, high speed and high variety information that require innovative and economical ways of processing information for an improved vision and decision making." Bayer and Laney ([2012](#)) updated this definition by stating that big data is "information of high volume, high speed and/or high variety that requires new forms of processing to allow improved decision-making, discovery of insights and optimization of processes." Perhaps isolated information is meaningless, but this processed information gains value and becomes great assets for companies, public authorities, and certain people with varied interests (Ramírez-Gallego et al. [2018](#); Liu et al. [2020](#)). This processed information does not lose the quality of being public or private, and the relevant authorizations are necessary for the one who manages and processes the information to be able to do so.

It is important to consider that big data helps in several areas of knowledge, mainly in the production of knowledge from this huge volume of information, requiring new parameters to deal with them in the field of sciences, for example (Maass et al. [2017](#)). For Maass et al. ([2017](#)), the influence of this voluminous set of information occurs mainly in scientific development considering the following: (1) using larger and more complete data sets (e.g., physics, biology and medicine); (2) increased computational capabilities (e.g.,, astronomy); (3) mining heterogeneous data sets for predictive analysis, text mining, and sentiment (e.g., business applications); (4) adopting new machine learning techniques (e.g., computer vision); and (5) generating new and innovative questions. The universe of possibilities is huge and affects the security of data, or information, both as a private data and as public data. However, it can be glimpsed that the most delicate point may be in data aggregation, which refers to the process by which raw data is collected, reformatted, and presented in a summary form for subsequent data sharing and further analysis. In general, raw data can be aggregated in a variety of ways, such as by time (e.g., monthly and quarterly), by location (e.g., city), or by data source (Wen [2020](#)). Isolated data alone may not have a meaning, but aggregate data may have significance.

It is possible to verify in Fig. [2](#) that there is still a long way to go in the context of data or information protection. Most countries do not have an effective system, only laws, or laws and the
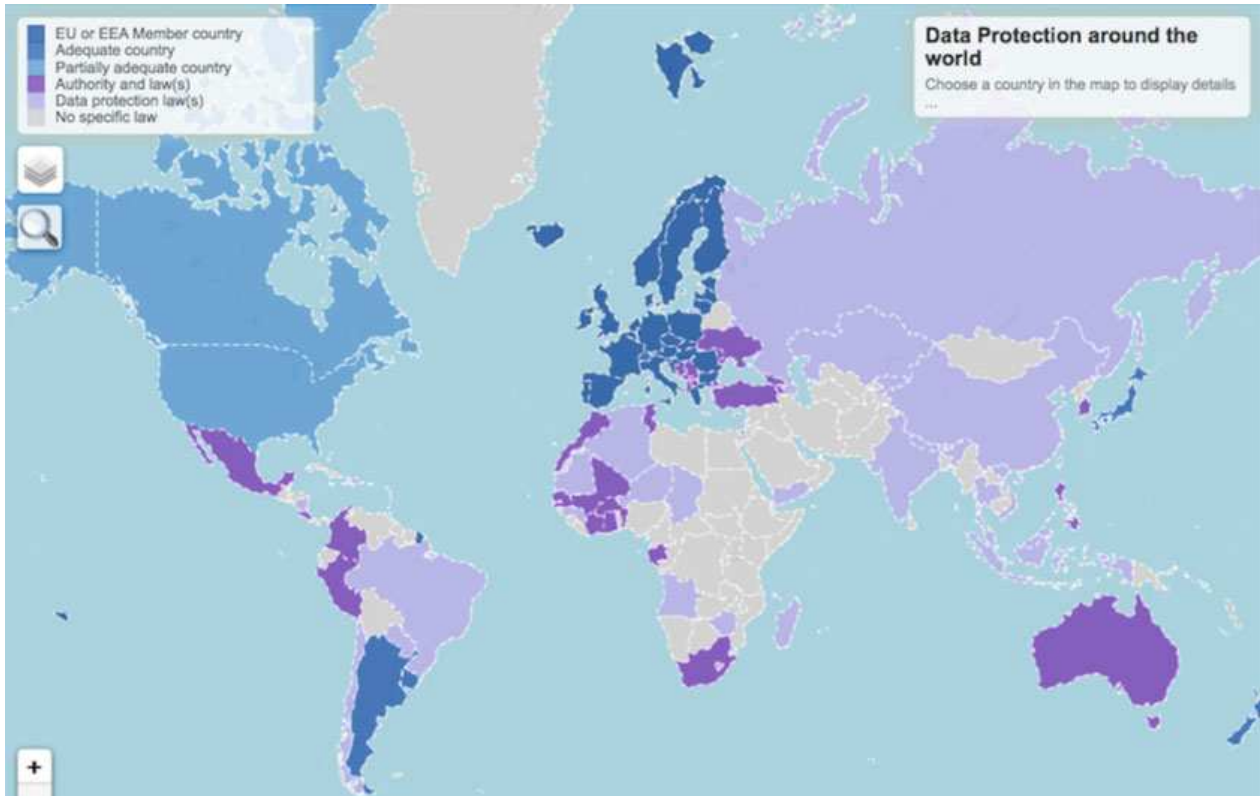
Public Access to Information for Sustainable Development, Fig. 2 Worldwide data protection. (Source: Commission Nationale de l'Informatique et des Libertés (CNIL) 2019)

regulatory authority, without a full implementation. Of course, having laws is an important step, but the implementation steps are fundamental, and it is a responsibility of the public power.

Why Is Public Information Access Important for the SDG 16?

Information, what is done about it and who has power over it are fundamental issues for civilizing design. This makes a difference in the relationship between power and people, both giving greater control of the governors in relation to the governed and giving greater autonomy and greater citizenship to the governed and enabling greater control over governors. The quality of access to information can define a government as being more or less democratic (Twizeyimana and Andersson 2019). Therefore, controlling information is power. The more information you have, and depending on the purpose you want, the more power you can accumulate. This will define the

level of freedom of the citizens, considering that it is difficult to talk about fundamental freedom where there is no democracy nor rule of law. In addition, one can think about information from the point of view of its applications.

The lack of information generates some negative effects for the construction of active citizenship as well as the structuring of more responsive governments and a more transparent environment. The first effect of the lack of access to information is the low transparency of governments. This transparency, according to Harrison et al. (2012), means the availability and flow of timely, comprehensive, relevant, high-quality and reliable information about government activities for citizens. Therefore, simple access is not enough, but a relationship of trust between government and the governed is established based on the quality of information. This relationship of trust will only be possible with the availability of the correct information, whether positive or negative in relation to the government, as citizens need to have subsidies to build their opinion and also protect themselves

from risky situations. Access to information is important and works as a facilitator for the concretization of the sustainable development, mainly in areas as health, environment, poverty eradication, and anti-corruption.

Combat and Prevent Corruption

The application of access to information as a fundamental element for a transparent government is a contemporary demand for full citizenship. For Twizeyimana and Anderson (2019), this directly impacts the daily perception of public power, the efficiency of public services, and the administrative improvement of the government, and it promotes an open and transparent government that has ethical care and cultivates professionalism and improves trust in government, improving social value and well-being. Without information it becomes difficult to fight corruption, for example, through the action of citizens individually and collectively. Faulkner et al. (2019), after researching several models of electronic governments, perceived that user satisfaction is linked to clarity of information and access.

The digitization of access to information has been an irreversible reality, since, in the last 10 years, many countries have made databases and information available on the network, becoming real repositories of accessible and useful public information for the population, mainly motivated for values such as greater government transparency, collaboration, and citizen participation and encouraging innovation (Gascó-Hernández et al. 2018). The digital government which has its information available on the Internet can assist and strengthen the fight against corruption through the inspection of citizens, state and private organizations, and even organizations formed by the collective effort of ordinary citizens (Nam 2018).

Zhao and Fan (2018) testifies from his research that a successful government will inevitably depend on the quality of access to information or on the level of transparency it has toward the population and other actors and partners. It is clear that access to information is central to the

quality and level of democracy of a country or even to the level of transparency of private organizations, establishing a positive and trusting relationship, whether between citizens and even service users, as well as consumers. In fact, the importance of information is so great that it can be called new oil, being a high-value asset, so its protection is essential.

Environmental Protection and Health Care as Related Dimensions

Currently, the quality of governments and companies performance vis-à-vis the environment is fundamental data for a good part of the population, because in times of pandemic or diseases that affect the whole world and that originates from the interference of human beings in nature, many of them want to know if this action is harmful for the future of the planet (WHO 2019, 2020). Access to environmental information should not be restricted, for example, in relation to pollution, deforestation, forest fires, biodiversity, water quality, and sewage treatment quality, among other data that may interest citizen monitoring. This data can also alert possible levels of preservation that are not adequate and that cause damage to humans and ecosystems. The availability of information with goals linked to sustainable development is increasingly an essential requirement in the public access model (Janowski et al. 2018). The case of electronic waste is an example of this, and it is a global problem; it is necessary to monitor the circulation of these objects and what is their final destination, so as not to pollute the environment (Kumar and Rawat 2018). This kind of Information can assist in the implementation of environmental policies through the pressure exerted by the population and public and private environmental organizations.

The lack of information leads to a society that is unaware of the level of preservation of the environment. Data about the environment is essential to know the moment and the need to act, in order to pressure governments and private entities to protect environmental factors, which are necessary for the survival of ecosystems and

human life on the planet (Rantala et al. 2020). Knowing the degree of sustainable development of countries must be considered essential information to prevent societies from becoming ill from pollution and from contamination of rivers and of the air; to prepare societies in the face of the emergence of new diseases, such as SARS-CoV-2 (COVID-19); and to make the level of compliance with the Sustainable Development Goals (2030 agenda) known by the population (Soma et al. 2016). Giving up this information means not prioritizing environmental protection on the public agenda, which promotes greater vulnerability on the planet. Such information must be public, and its availability must be a mandatory guideline. The lack of information causes the government and the governed to feel that they are not guided to follow the paths necessary for sustainable development; it is as if they were on an airplane whose navigation equipment for some reason appeared to be disconnected, causing disorientation during the flight. It is not knowing where to go. It is important to highlight that this transparency in information and its consequent availability is crucial for increasing the credibility of companies and for them to be classified in the community as sustainable corporations, including clearly presenting the level of risk of what is produced or of its intervention in the environment, degrees of pollution, and other indicators (Jacoby et al. 2018; Tseng et al. 2020).

The participation of the population is essential in the design of water and sanitation policies, as well as in its implementation, and without it the public policy performance, which is the essential to life, will be compromised; and there cannot be participation without information (Mukhtarov et al. 2018). In such cases, open and easily accessible information and data on Internet portals is basic to this process of participation in public policies. Colombo and Femminis (2014) attest that when the capacity of policymakers to overshadow information is restricted, increasing the accuracy of public information can improve well-being.

In the nineteenth century, Sir Jean Snow, an English scientist who dedicated his life to the study of infectious diseases, used monitoring through the mapping of the cholera infection, which affected the English people at that time, to map the disease in London. This draws attention to the importance of these tools for preventing outbreaks of certain diseases as well as the mapping of their evolution, through a simple survey of city sewage and the water that is provided. It is an epidemiological control tool of paramount importance, mainly highlighted in times of pandemic, such as the SARS-CoV-2 (COVID-19), that is being monitored in several places around the world; the ones responsible for the sanitation of cities and scientists are analyzing sewage clues in relation to the behavior of the virus in these environments, being able to establish the viral load according to the mapped geographic location or space (Morawska and Cao 2020; Sims and Kasprzyk-Hordern 2020). Zoller et al. (2020) point out the importance of monitoring the urine of people exposed to glyphosate, for example, a carcinogenic substance, which would serve as a biomarker to indicate the health of people, which reinforces the relevance that cities have sewage collection networks and that this information is available to both the population and the decision-makers in general.

Another effect of the lack of access to information is the lack of knowledge about the real health diagnosis of the country's population. Research shows that access to information has a double positive effect: it helps in decision-making, and it helps in reducing the vulnerability of patients (Fiocruz 2019). Access to technology that provides information, especially mobile phones, is essential in this moment of social isolation. Hiding information is not effective; on the contrary, it leads to a higher risk of an increase in COVID-19 cases. As Negri et al. (2020) point out, in times of pandemic, qualified public information is essential not only for citizens but also for the production of knowledge in order to mitigate and combat the virus and seek an effective vaccine. The absence of accessible and quality public information can be harmful in a public health policy that aims to reduce obesity in the population. In this field, studies indicate that this information is scarce, confusing, and insufficient to guide the consumer's decision, which can even put their lives at risk (Díez et al. 2017).

Poverty Eradication

It is not possible to talk about sustainable development without poverty eradication. And access to information is also fundamental for this. Access to information can provide possibilities to freedom, and the way out of poverty may be one of them. The lack of information may generate a cycle which imprisons people who are in situation of financial vulnerability, who have no access to basic services, such as water, energy, and sewage and no access to basic daily food. The lack of information prevents people from organizing themselves, because they do not have knowledge about the instruments and the ways they can be used to claim their rights. Poverty eradication is fundamental in the process of implementation of the SDG, since it is not possible to have a sustainable, peaceful, and fair society in a context of growing poverty. Improving access to information must go hand in hand with the increasing of income for the poorest people, in order to promote the sustainable eradication of poverty (Randel 2013). According to Randel (2013), on a randomized control study in Uganda, clinic users had access to data and qualitative information about the local financing of health care. The result was a great improvement on the health services: the waiting time and the absenteeism of the health team decreased, the clinics got cleaner, fewer drugs were stolen, and there was a reduction of 33% of infant mortality, saving 550 lives in a region with only 55.000 families. Information and transparency create grounding for the development of other policies, which may be somehow related to poverty eradication. It is necessary to have information and, simultaneously, a broad process of education so that people know what do to with it. Igwe (2019) points out that no civilization was successful in any field without access to information. Zhang et al. (2019) contributed in research that access to information had a positive impact in the decrease in poverty in Chinese communities, especially in rural communities. At the same time, the big data technology may be used to dynamically track the situations of demand from poor families and the allocation of resources to relieve poverty, as well as to improve justice and transparency of the work for relieving poverty.

Information Governance Is Necessary

The so-called information age influences not only social relations, economy, and science but also governance (Soma et al. 2016), which is the decision-making process and by which decisions are implemented. It can be used in various contexts, such as corporate governance, institutional governance, national governance, and local governance (Islam 2018). The aspect of the arrangement and interaction of information and how it will be organized is fundamental for their security and for the correct and lawful access by citizens. This new world of big data needs rules of legal frameworks that allow the assumptions and fundamentals of public access to information to occur (Samoilenko and Shilina 2017). Governance presupposes in itself a set of structures that interact under rules and principles that govern the flow of information and how this will occur. However, this governance in times of big data is part of a broader information governance program that manages policies related to data optimization, privacy, and monetization (Samoilenko and Shilina 2017). In order to have good governance, it is necessary to have information management installed in the sectors that will work with this data, besides capturing, processing, and presenting it as accessible or not, according to what is determined by the country's legislation and international conventions and treaties.

However, according to what Samoilenko and Shilina (2017) state, to minimize the potential risks related to data misuse or privacy breach, strong information management should include a comprehensive data model that supports a company's business applications, appropriate data management tools, and methodology, in addition to competent data specialists. Therefore, the governance process refers to creating a profile of the data, understanding what it will be used for, and determining the necessary level of management and protection of this data (Samoilenko and Shilina 2017). According to Islam (2018), good

governance needs to establish the regulation paradigm and rules for the development of public management within parameters. This governance is tested to the extreme, mainly in times of pandemic isolation, when most people need to stay at home and are working and maintaining levels of sociability because of the Internet, clearly increasing the flow of public and private data. In this universe, it is possible to have information on personal data, acquisitions, financial transactions, lawsuits, criminological data, genetic data, health data, and other possibilities not even imagined yet, which are stored on servers or in the cloud. Currently, as the most effective way in the aspect of governance of private data in relation to financial transactions, blockchain technology is being used as the most secure, and it also can certainly be used for other business modalities (Gupta and Sadoghi 2019).

It should also be borne in mind that for a new post-pandemic normal, information governance will have increased its level of relevance in view of the urgency of having more intelligent urban spaces, which are those that insert technology, economics, and governance under ubiquitous computing and that are driven by innovation (Pettit et al. 2018). This is just a bias, but within the perspective of public information governance in smart, connected, technological and innovative urban spaces, environmental management, sanitation, disasters, management of land use, and occupation, among others that produce public information, can also be inserted in so many cases. Thus, smart governance is essential to articulate all these needs, with digital communication being an ally to be used for this purpose (da Silva and Fernandes 2020). This smart governance is composed of the following factors (da Silva and Fernandes 2020, 2):

1. Collaboration
2. Participation
3. Transparency
4. Effectiveness
5. Efficiency
6. Guiding consensus
7. Responsiveness
8. Strategic vision
9. Equity
10. Inclusion
11. Rule of law
12. Coherence

All of these principles for smart governance that should make up the universe of smart cities must have a synergy with communication and information technologies. This will be essential if effective public access to information is to take place. Geoinformation plays a fundamental role for decision-makers who need to know their territory as much detailed as possible and that this information is also clear for citizens who act as public administration inspectors as well and can collaborate in management (da Silva and Fernandes 2020). And for this governance to be meaningful, the information must be considered relevant, in the sense of being salient and with a high signal/noise ratio, and individuals must have the power and incentives to act accordingly (Kosec and Wantchekon 2020). So far, there has been talk of the urban environment in which access to information is facilitated. Information governance and its public access should also include the most remote regions, as rural areas that public services and concentrate great poverty worldwide (Kosec and Wantchekon 2020).

Conclusion

The priority is to transform public access to information into a state policy and not a government policy, transforming it into a consolidated public policy. Free and quality access to the Internet has become essential for the purpose of making public access to information a public policy. As it became easier, because today you can have access to a large amount of information through the cell phone, for example, it has also become a great challenge, because it is necessary to universalize access to the Internet in order to be able to also universalize public access to information. This first point should be the grounding for public access to information as a public policy. This would make the transition from private, nonpublic information to a level of public communication

effectively, with the goal of improving citizenship (Bottrel 2018).

A second point is to consider the need to provide the country with the minimum infrastructure necessary to enable this access. It can be said that the creation of this infrastructure would eliminate a classic dysfunction in the state bureaucracy, which is unrestricted access to information. The wide access to the Internet in countries that intend to make access to information as a public policy is a mandatory guideline, especially considering the process of transforming conventional governments into electronic governments guided by a certain level of information systems that provide access to information and increase transparency. This implies the involvement of multiple actors and with a perspective that encompasses the production, storage, and dissemination of information, constituting a public information policy.

Another dimension based on public access to information is citizen participation. It is hoped that the universalization of information systems and possibilities for virtual access will also improve the participation of citizens in decisions, formulation, and implementation of public policies. Studies point out that the decentralization of participation through information systems is a viable alternative and that provokes greater legitimacy and acceptance of public policies defended by the government, pointing to few mistakes and even correction of directions. Ruijer et al. (2017) conclude in their research that a context-sensitive open data design facilitates the transformation of raw data into meaningful information collectively constructed by public administrators and citizens. This means that it is better to have interaction since the construction of data. It is not enough to have open data; they also need to have meaning for administrators and citizens, adapting to each model of society. The mere availability of information without prior treatment, which does not mean manipulation, can cause several distortions. The virtual availability of public information cannot be used as an excuse to eliminate citizen participation, but to strengthen this process.

We are experiencing a context of great volume of information that requires the institutionalization of a public data infrastructure that promotes their access and security. Therefore, the task is difficult, but necessary; information is the great asset of the coming centuries, with which it is possible to produce knowledge; formulate, implement, and evaluate public policies; and improve citizenship by increasing the possibilities of information; and bad information can establish chaos in life in society. There is no full democracy without quality public information available. The absence of this causes the curtailment of human rights, such as the right to information and communication just to begin. It will be through access to information that public services can be improved; besides that, the fight against corruption will have space on the public agenda. Public access to information is essential for maintaining the democratic rule of law while also improving environmental defense and protection as a global need. It is necessary to take care from the definition of what is or is not public information until its publication on the worldwide web or in another communication vehicle.

Cross-References

▶ Big Data Analysis for Smart City Applications
▶ Good Governance
▶ Governance and Citizenship
▶ Governance and Democracy
▶ Smart Cities or Future Cities
▶ Smart City Big Data or Large-Scale Urban Data and/or City Data

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