



SHORT COMMUNICATION

Unveiling Public Information in the Metaverse and AI Era: Challenges and Opportunities

Desvelando la información pública en la era del metaverso y la inteligencia artificial: Desafíos y oportunidades

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ABSTRACT

The concept of transparency is a fundamental principle in administrative management that allows citizens to access any type of information or document issued by public entities as part of their functions. This article aims to describe the transparency of public information in the era of the metaverse and artificial intelligence. The guarantee of this right implies, first, the commitment to provide public information openly and freely in all terms, without any kind of restriction and with appropriate truthfulness; second, responding to citizens in a truthful, timely and efficient manner with the aim of covering their needs and interests; and third, producing and/or capturing public information in order to achieve citizen satisfaction. The transparency of public information remains essential in the era of the metaverse and AI. While these new technological developments present challenges, they also offer opportunities to develop innovative transparency practices that can improve democracy and life in society. The era of the metaverse and AI presents significant challenges for the transparency of public information. The limitations to verify information in the metaverse and the opacity of AI pose important barriers to ensure transparency and accountability. It is necessary to develop specific transparency policies and practices for the metaverse and AI, and to promote public education on these topics. It is essential to work on solutions to ensure transparency and responsibility in the digital era.

Keywords: Transparency; Public Information; Metaverse; Artificial Intelligence.

RESUMEN

El concepto de transparencia es un principio básico en la gestión administrativa que permite a los ciudadanos acceder a cualquier tipo de información o documento emitido por las entidades públicas como parte de sus funciones. Este artículo tiene como finalidad describir la transparencia de la información pública en la era del metaverso y la inteligencia artificial. La garantía del derecho implica, primero, el compromiso de brindar la información pública de manera abierta y libre en todos los términos, sin ningún tipo de restricción y con la veracidad adecuada; segundo, responder a los ciudadanos de manera veraz, oportuna y eficiente con el objetivo de cubrir sus necesidades e intereses y, tercero, producir y/o capturar la información pública, a fin de lograr la satisfacción de los ciudadanos. La transparencia de la información pública sigue siendo esencial en la era del metaverso y la IA. Si bien estos nuevos desarrollos tecnológicos presentan desafíos, también ofrecen oportunidades para desarrollar prácticas innovadoras de transparencia que pueden mejorar la democracia y la vida en sociedad. La era del metaverso y la IA presenta desafíos significativos para la transparencia de la información pública. Las limitaciones para verificar la información en el metaverso y la opacidad de la IA plantean importantes barreras para garantizar la transparencia y la rendición de cuentas. Es necesario desarrollar políticas y prácticas de transparencia específicas para el metaverso y la IA, y promover la educación del público sobre estos temas. Es esencial trabajar en soluciones para garantizar la transparencia y la responsabilidad en la era digital.

Palabras clave: Transparencia; Información Pública; Metaverso; Inteligencia Artificial.

INTRODUCTION

According to Medranda Morales et al.⁽¹⁾, transparency is a subject that develops early in the field of state administration due to its implications in the review and control of public-power-related procedures.

The term "transparency" appears in the Greek literature and in the first stages of the development of the Chinese empire with a meaning similar to the current one in the democratic State, which implies availability of written laws accessible to all citizens.⁽¹⁾

From the perspective of Terán Ramos⁽²⁾, transparency is a concept relating to "clarity, good opinion and good acting of the individuals", from which you can obtain real information about a company, organization or government, which can be consulted by anyone regardless of whether they have clarity, information and knowledge of that subject.

In consonance, González et al.⁽³⁾ define the concept of transparency as a basic principle in administrative management that allows citizens to access any sort of information or document issued by the public entities as part of their functions.

This way, Moreno et al.⁽⁴⁾ consider that transparency arises in the context of the right of citizens to access public information, out of responsibility and rendering of accounts as basic elements allowing governments to generate democratic processes in which the deeds of public servants can be evaluated in order to prevent any corruption-related events.

The above, in the words of Scarafía⁽⁵⁾, means that transparency is a concept associated with "preventing corruption in public administration" because it ensures the possibility of preventing anomalies in the processes implemented in the public sphere.

In connection with the aforesaid, Piedras points out that transparency is "a mechanism for guarantee and effective exercise of the right of citizens to access public information, which contributes to optimizing the operations and processes of rendering of accounts by the public agencies. For this implication to come true, public information must be available, relevant and easily requested and accessed by citizens".⁽⁶⁾

With the definitions pointed out above, it is clear that they all coincide in understanding transparency as an effective mechanism for the ordinary citizen to have access to public information, the digital means being a tool that facilitates the opening of public data. For this reason, the use of ICTs has become a worldwide trend.^(7,8,9,10)

Likewise, transparency relates to democracy as freedom of access to information and the right of citizens to "know first instance their political representatives' management via a full, detailed, contextualized, timely publication about the essential issues of public administrations".⁽¹¹⁾

According to the statement by Cabezas⁽¹²⁾, so that there can be a connection between democracy and transparency regarding access to information, people should gain wider and better spaces for social participation by using ICTs. Since they have been a valid tool to facilitate spaces and resources in time, to conduct all sorts of consultations, procedures, requests and the like, then monitoring the governmental deeds and those performed by government officials turns clearer and faster, thus being a valid instrument to make people trust more in public institutions. Therefore, training them in their use is required.

In this regard, Arosemena de Troitiño et al. consider transparency is not enough to increase people's trust in public institutions, as it has lost social value because their reputation have been permeated by different events of corruption putting their credibility in doubt and affecting the citizens' faith in them.⁽¹³⁾

This may end up affecting motivation in the use of electronic means for the people to consult the public information they require. Therefore, to institutions such as Caquetá Government, incorporating transparency into the processes it carries out poses a complex and necessary challenge, from the virtual or in-person means through which citizens are allowed to obtain public information.⁽¹⁴⁾

The purpose of this article is to describe the transparency of public information in the era of the metaverse and artificial intelligence.

DEVELOPMENT

Access to public information

The concept of access to public information is defined by Cafferata⁽¹⁵⁾ as a right of any citizen to obtain any piece of information from both public entities and "private officials performing public functions or State funds", which implies that the administrative system should provide recognition and access to information to the person requesting it.

This definition articulates with what is stated by Droguett⁽¹⁶⁾, who relates access to information as

a fundamental right through which democracy is exerted in two dimensions, the individual -as any person deserves to know and have public information available at the moment it is needed, regardless of the reasons why it is required- and the social -as a collective right to receive information, which makes it possible to exert democratic control of the work done by public servants, as a way to guarantee they meet their obligations thoroughly.

When taking the legal framework of said right into account, it is worth highlighting the analysis made by the Organization of American States (OAS) in what is known as *constitutionality block*, in which the treaties and agreements ratified by Colombia about human/fundamental and/or constitutional rights are considered, access to information being a right protected by the fundamental right of freedom of speech. This right is recognized in Article 19 of the Universal Declaration of Human Rights as of 1948; Article 19 of the International Covenant on Civil and Political Rights as of 1966; Article 13 of the American Convention on Human Rights as of 1969, also known as Pact of San Jose; Article IV of the American Declaration of the Rights and Duties of Man; and Article 4 of the Inter-American Democratic Charter (Organization of American States (OAS) & Department for Effective Public Management (DEPM)).⁽¹⁶⁾

Access to information as a right within a legal framework being taken as a referent, Zambrano Yépez⁽¹⁷⁾ points out that the incorporation of ICTs has played a fundamental role in access to information and in how they evidently improve the relationship between society and government from the viewpoint of smart governance, where the ordinary citizens acquire a central connotation allowing them to interact and participate with the State.

This poses a complex challenge to public institutions regarding the ways in which contents and data are provided to people, since it entails a change in the traditional styles that, from the face-to-face version were the conventional and used means, to embrace virtual scenarios such as digital platforms, electronic means, emails, social media, Web pages, etc.^(18,19)

Consequently, some goodness provided by ICTs as a means to access information has been recognized, within which Piedras remarks that, via these digital tools, “it is simpler and more accessible for everyone to know in detail the working conditions of public servants, to monitor the governmental expenditures and to have updated documents available on labor and public services contracting”.⁽⁶⁾

Besides, “new forms of open and ICT-mediated collaborative work”⁽²⁰⁾ are recognized for the entities, which make coping with unexpected and fortuitous events easier, giving continuity to processes and enabling organizations to significantly reduce costs and time.⁽²¹⁾

For their part, Scotto et al.⁽²²⁾ affirmed that “access to public information is the operating capacity of certain fundamental democratic principles such as the publicity of the acts by governments, the responsibility of officials and their rendering of accounts. Effective exercise of the right to access to Public Information is activated in practice through formal requests, in writing, but not necessarily grounded, that any citizen duly identified can make to a public agency or state-controlled company for any piece of information the citizen believes to be relevant and is in the possession of the State or must be rendered by the State”.

From the above we can conclude that the social importance of access to Public Information resides mainly in the fact that said information allows and stimulates the making of decisions affecting the community directly, ie it becomes a mechanism for participation that stimulates the solution of social problems such as corruption, inequity and exclusion, since it makes it possible to follow up the work done by officials and to conceive and express fairer opinions contributing to deeper speeches, debates and talks dealing with social issues.⁽²³⁾

In line with the aforesaid, Gaitán⁽²⁴⁾, in a comparative study between Chile, Colombia and Mexico, indicates the importance of the presence of a legislation on this matter that articulates with a public agency supervising and making sure the fulfillment of the right to access to public information, in order to have better results in guaranteeing the regime of access to information and, besides, this author considers five dimensions for minimal knowledge of a regime of access to information: first, characteristics of the regime of the right to access to public information; second, obligated subjects; third, restricted regime of exceptions; fourth, guarantee of the regime: appeals and legal procedure; and finally, existence of an information agency acting as guarantor of the right. This way, Fernández offers an international view that will be useful at the time of establishing the effectiveness of the national regulations in contrast with that of the object of study at local level.

Moreover, Ordoñez⁽²⁵⁾ considers access to information a decisive instrument enabling efficiency and efficacy in the State actions, particularly in those actions implemented concerning public resources, which fosters transparency in their performances via social control.

This entails generating a culture of responsibility based on respect and dissemination of the individual rights, as well as the promotion of rendering the public service correctly, which contributes to favoring the values of democracy, generating the consolidation of the people’s trust and credibility in the governmental institutions. This way, access to information is a fundamental resource against corruption because, through it, public control and monitoring of governmental management can be exerted, making any possibly incurred inconsistencies and failures visible and arousing the promotion of better practices, actions and communication

to perform the entrusted tasks, processes and functions conscientiously.⁽²⁶⁾

Finally, OAS and DEPM assure that access to information is an instrumental right making it possible to exert other rights like the economic, social and cultural rights because, through it, the ordinary citizens can specify those circumstances that could affect their daily life, ie it enables development in decision making, out of specific information, in order to improve the quality of life. All this is based on the directive specifying that access to information promotes improvements to basic public services, health, education, public security, encourages the full exercise of the rights and freedoms and improves the quality of life of citizens.⁽²⁷⁾

Mechanisms for transparency and access to public information

So as to go deep into the mechanisms for transparency and access to information, it is necessary to start talking about the *Anti-Corruption and Citizen Service Plan*, which is based on Law 1474 as of 2011 Article 73, Law 1757 as of 2015 Article 52, and Law on Transparency and Access to Information Law 1712 as of 2014, which operate out of a preventive, corruption-controlling perspective.⁽²⁸⁾

In its methodology, this plan includes six independent components, with their own regulatory foundation and measures, transparency and access to information being the fifth component.⁽²⁸⁾

As a fundamental element to avoid corruption-exposed scenarios, the component *mechanisms for transparency and access to information*, which is the basis of this study, indicates the series of activities that entities should implement to optimize the quality and accessibility of the procedures and services provided to the ordinary citizens in order to attain their full pleasantness.⁽²⁸⁾

This component is the responsibility of the Transparency Secretariat as the leader entity for the design, promotion and implementation of the Policy on Access to Public Information, in coordination with the Ministry of Information and Communication Technology, Public Function, the National Planning Department (DNP), the General Archive of the Nation, and the National Administrative Statistics Department (DANE).⁽²⁸⁾

Moreover, the component *mechanisms for transparency and access to information* has a referent in the guidelines of the first strategy of the National Council for Economic and Social Policy CONPES (Conpes document. Number 167, 2013), which is named *Strategy to improve access to and quality of public information*, which stores the guidelines to guarantee the fundamental right to Access to Public Information and is regulated by Law 1712 as of 2014 and Law-Ranking Decree 1081 as of 2015, pursuant to which “any person can access public information in possession or control of the law-obligated subjects”.⁽²⁹⁾

According to the Transparency Secretariat of the Republic of Colombia, the guarantee of right faithfully articulates with the concept of transparency, this concept is defined by the Colombian Government, citing the corporation Transparency for Colombia as the “legal, political, ethical and organizational framework of public administration” that guides the way in which public servants must act in the Colombian territory; this means that said public servants are exposed to public scrutiny.

Thus, three dimensions of transparency are recognized, the first, *in public management*, which includes planning, decision, implementation and assessment of programs, plans and their surveillance out of clear rules so as to be able to carry out the public function; second, *in the rendering of accounts*, as a compulsory act of efficiently and reciprocally answering for the development and results of public management and, finally, *in access to public information*, which has to do with full, timely and permanent access to information about the actions of the administration.⁽³⁰⁾

This means that all entities must generate actions making it possible to strengthen the right to access to public information and include them in the anticorruption plan so that not only administrative management but also public servants and ordinary citizens know about it.

Transparency in the era of the metaverse and artificial intelligence (AI)

Transparency of public information is an essential element in democracy and rendering of accounts. However, in the era of the metaverse and artificial intelligence (AI), transparency faces new challenges.⁽³¹⁾

In the metaverse, an online virtual space, information can be more difficult to track and verify. As more and more activities like communication, trade and entertainment migrate to the metaverse, it is important to guarantee that the information available in this space should be as precise and accessible as in the real world.

AI also poses challenges to the transparency of public information. As AI is increasingly used in decision making in areas such as employment, justice and medical care, it is important that citizens should have access to transparent information on how AI works and how these decisions are made.⁽³²⁾

In addition, there is the risk that AI may be used to manipulate the information presented to the public, which may have serious consequences for democracy and society in general. For instance, algorithms can be used to create profiles of citizens and present to them customized information to influence their opinions and decisions.⁽³³⁾

In order to address these challenges, it is important that governments and organizations should work in unison to develop policies and practices of transparency applicable both in the real world and in the metaverse.

This can include the creation of specific regulations for the metaverse and AI, the promotion of transparency standards for the development and implementation of algorithms and the education of citizens on how AI works and how they can protect themselves from the manipulation of information.

Transparency of public information is a fundamental principle of the rendering of accounts and democracy. Nevertheless, the era of the metaverse and artificial intelligence (AI) poses new limitations to the transparency of public information.

In the metaverse, an online virtual space, transparency of public information is limited due to the difficulty in verifying and tracking the information. Data can be altered and manipulated, which hinders the verification of the source and the accuracy of information. Besides, lack of regulation on the metaverse and the possibility of operating under anonymous user names makes it harder to establish responsibility and transparency in the exchange of information.⁽³⁴⁾

Furthermore, AI can also limit the transparency of public information. As AI is used to make decisions in diverse areas such as employment, justice and medical care, the transparency of how AI works and how these decisions are made turns crucial. However, the complexity of the algorithms and lack of understanding of how they are developed and applied can make decision making opaque and inaccessible to the public.^(35,36)

In addition, there is the risk that AI may be used to manipulate the information presented to the public, which may have serious consequences for democracy and society in general. Algorithms can be used to create profiles of citizens and present to them customized information to influence their opinions and decisions. This can undermine transparency and trust in the presented information.

CONCLUSIONS

In this context, guarantee of right implies, firstly, commitment to provide public information offered openly and freely in all terms, without any restrictions and with what it really is, ie veracity; secondly, answering to citizens veraciously, opportunely and efficiently in order to cover their needs and interests; and, thirdly, produce and/or capture public information so as to make citizens really satisfied. Taking into account that information must meet criteria of quality, veracity, accessibility and opportunity making it possible to understand transparency as the means through which the public administration turns more efficient and ordinary citizens can have access to information.⁽³⁷⁾

Moreover, within the policy on Access to Public Information as a fundamental right recognized in Article 13 of the American Convention on Human Rights, five general strategies are recognized to start implementing measures guaranteeing said policy, which define the subcomponents of the component of Transparency and Access to Public Information.

As an essential element to implement strategies, the fifth subcomponent addresses the following elements: Monitoring of Access to Public Information in order to have a mechanism to follow up access to public information, in which entities must generate a report on requests for access to information that contains, among other general aspects, the following criteria: number of received requests; number of requests transferred to another institutions; response time for each request; and, finally, number of requests in which access to information was denied.

Within the regulatory framework, the component *mechanisms for transparency and access to information* is the responsibility of the Transparency Secretariat as the leader entity for the design, promotion and implementation of the Policy on Access to Public Information, in coordination with the Ministry of Information and Communication Technology, Public Function, DNP, the General Archive of the Nation, and the National Administrative Statistics Department (DANE). The component is in line with the actions for the implementation of the Law on Transparency and Access to the National Public Information 1712 as of 2014 and the guidelines of the first objective of CONPES 167 as of 2013 “*Strategy to improve access to and quality of public information*”.

Transparency of public information keeps no doubt being essential in the era of the metaverse and AI. Though these new technological developments pose challenges, they also offer opportunities to develop innovative transparency practices that can improve democracy and life in society.

The era of the metaverse and AI poses significant challenges to transparency of public information. The limitations to verify the information in the metaverse and the opacity of AI set important barriers to guarantee transparency and rendering of accounts. Specific transparency policies and practices for the metaverse and AI must be developed and public education on these issues promoted. Working on solutions to guarantee transparency and responsibility in the digital era is essential.

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