

The Preservation of Memory and the Management of Information as a Step towards Sustainable Development

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Abstract: - Sustainable development comprehends the balance between human activities and the environment. Today, more than ever, the need to act with respect for the environment and the urgency in recognizing that we belong to the planet, and not the other way around, have accelerated and generalized the demand for information about environmental sustainability, economic and social concerns, and the discussion about which Humanity should adopt paths to save the species.

The United Nations 2030 Agenda recognizes access to information as a critical goal in the Sustainable Development Goal of promoting peaceful and inclusive societies, access to justice for all, and building effective, accountable, and inclusive institutions at all levels. In a global and inclusive society, people's access to information and the need to protect fundamental freedoms is necessarily the founding principle of the path to achieving global sustainability.

The understanding of the world and society has always been founded on the study of the past, the knowledge of history, traditions, and memory. Only knowledge of memory allows us to know where we come from and to determine where we are going. Memory, which is nothing more than informational heritage, a generator agent of value and distinctive identity, is essential to create, distinguishing, and enriching socioeconomic activities based on the realities of the environment and local cultures towards socioeconomic and environmental sustainability and inclusion.

In this paper, we intend to highlight the crucial role of information professionals in sustainable development, as they play unique and privileged roles in the preservation of people's identity and culture, as well as in the collection, research, processing, protection, promotion, enhancement, and transmission of information, which guarantee the viability of Humanity's cultural heritage and access to information as one of the goals of sustainable development.

Key-Words: - sustainable development, information management, informational heritage, inclusion.

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1 Introduction

Sustainable development is a very prominent theme today. Closely linked to factors of an environmental nature, when we refer to sustainable development, the focus is not always only on the environment. In fact, since the late twentieth century, sustainability entered our vocabulary, more precisely in the eighties, a decade until which the progress of Humanity was measured by material goods and economic progress, [1].

Since then, we have understood development as economic progress, yes, but inseparable from the

quality of life, access to technology, culture, respect for the environment, and the certainty that if we do not strive for sustainability at all these levels, the development we have been witnessing for the last 40 years will rapidly decline and, with it, the high risk of compromising the next generation's future.

In 2015, the United Nations (UN) defined the 2030 Agenda during the 70th General Assembly, signed by the heads of State and governments of the 193 UN member states during the UN Summit on Sustainable Development. This Agenda includes the seventeen Sustainable Development Goals (SDGs),

with the primary objective of addressing our planet's economic, social, and environmental challenges.

These goals are:

1. eradicate poverty; 2. eradicate hunger; 3. access to quality health care; 4. access to quality, inclusive and equitable education; 5. gender equality; 6. clean water and sanitation; 7. renewable and affordable energy; 8. decent work and economic growth; 9. inclusive industry and innovation; 10. reduce inequalities within and among countries; 11. inclusive, safe, and sustainable cities; 12. sustainable consumption and production patterns; 13. combating climate change; 14. protecting marine life; 15. protecting terrestrial life; 16. promoting peaceful, just, and inclusive societies; 17. establishing and strengthening means of implementation and global partnerships for sustainable development, [2].

With less than a decade to go to achieve the SDGs, it is essential to know what sustainability indicators need to be fulfilled and where we stand in the taking of concerted action at local and global levels to fulfill the 2030 agenda.

In this article, we focus on SDG 16:

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels.

In this rather wide goal, there is one topic that highlights the importance of information, its management, and access to information in fulfilling the SDGs, namely the topic that refers to ensuring public access to information and protecting fundamental freedoms in accordance with national legislation and international agreements.

Information professionals have a vital role in the management, preservation, enhancement, and transmission of information. They can play a crucial role in achieving this goal since access to information, the informational heritage, and the need for the protection of fundamental freedoms and inclusion is the foundation of the path toward the achievement of global sustainability.

2 Sustainable Development

In the second half of the 20th century, a concern for the environment began to emerge as a result of an awareness of the alarming growth in pollution, the discovery of a hole in the ozone layer, and access to more information about human-induced environmental disasters.

The need to act globally to minimize the damage caused to the planet and to stop some harmful behaviours to the environment was noticed. The use

of renewable energy started to be frequently discussed, and the concept of sustainability became part of our everyday vocabulary.

Many initiatives, resolutions, and international conferences were held between the early 1970s and the late 1990s to face the challenge of minimizing pollution and adopting more sustainable behaviours, most notably the UN Conference on Environment and Development, which took place in Rio de Janeiro in 1992 (ECO-92), [3].

It was becoming impossible to ignore the reality that our development as a species, for future generations, and as a global society could only happen with respect for the planet and its limits, [4].

In fact, since the 1987 Brundtland Report, or *Our Common Future*, published by the United Nations World Commission on Environment and Development (WCED), the notion of Sustainable Development (SD) covers three fundamental pillars: economy, society, and environment, [5]. Development, which not only takes into account the needs of the world population but also considers the future of the next generations through the adoption of measures under these three pillars to avoid excesses, waste, injustice, pollution, inequalities, and misinformation, among many others, [6], [7].

2.1 Indicators

To be able to implement and measure the results of sustainable development strategies, both locally and globally, it is essential to determine sustainability indicators and their continuous verification, measurement, and readjustment of convergence measures, whenever necessary, in order to understand where Humanity stands in contributing to the fulfillment of the United Nations 2030 agenda.

The use of indicators is essential to achieve a simplified model of the real situation for the formulation of strategies, adoption of measures, and decision-making, to accomplish the SDGs by 2030. These indicators are interdisciplinary (economic, social, cultural, and environmental, among others) and of a qualitative and quantitative nature since the concept of SD embraces many dimensions. The majority of the indicator systems (environmental, social, and economic) centred on metrics to be achieved.

Regarding the environmental indicator systems, targets were set for soil, air, water, and resources, using legal parameters as objectives to be achieved by the countries.

At the economic level, it was intended to associate the environmental sustainability component with the economic sustainability factors,

such as production, wealth *per capita*, and investment in critical sectors of the countries, such as education, health, and transportation, among others, always with attention to the generation of wealth (mix of income, production, and expenses) sustainable for Humanity, the so-called *green accounting*.

The indicator systems for the social dimension are based on three main aspects: longevity, knowledge, and a decent standard of living for the population, [8], [9].

It is the element of the social dimension – knowledge – that we have focused on for this article in the analysis of SDG no. 16, as already mentioned.

Sustainability indicators cannot, therefore, be the exclusive responsibility of governments on a global scale. They must be concerted between Governments effectively; however, companies and various institutions, in addition to all of us, at a personal and private level, must actively participate, be properly informed, take measures, and carry out actions aimed at fulfilling the SDGs, [10].

2.1.1 The Importance of SDG No. 16

SDG 16 has the primary goal:

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels. And then no. 16.10 further specifies:

Ensure public access to information and protect fundamental freedoms in accordance with national legislation and international agreements.

Access to information is the stepping stone to responsible and inclusive societies and institutions. Only based on accurate, current, complete, and in-depth information can decisions be made, and the need for the inclusion of all in the process of global sustainability be realized.

Silva defines Information as:

A structured set of encoded mental and emotional representations (signs and symbols) shaped with/by social interaction, capable of being recorded in any material support (paper, film, magnetic tape, compact disc, etc.) and, therefore, communicated asynchronously and multi-directionally, [11].

Here it is important to highlight the definition of information as a social phenomenon inherent to the human being and not just a set of data in the merely technological sense. In this way, information is presented as structured by humankind, which produces and shapes it, quantifies and interprets it, reproduces, preserves, and transmits it. Thus,

information is inseparable from knowledge and communication; it is not limited to data or facts; on the contrary, Information comprises emotions, feelings, and impressions, [12].

The fact that information can be recorded, memorized, and preserved is what has made possible, throughout our history, the transmission of knowledge and memories, the birth and accentuation of diverse cultures. The culture of each people, region, or country comprehends a technical capital that can be transmitted through teachings, practices, and rules and a mythological capital of beliefs, rituals, values, and prohibitions, that is, tacit knowledge, which cannot be taught, but which is implicit, and which an entire community knows and incorporates.

The information and knowledge society presupposes the creation of an efficient, standardized telecommunications infrastructure for the communication of individuals and organizations and assumes that the promotion of economic competitiveness and industrial and commercial productivity is achieved through the use of information as a resource. Thus, there is an increasing need for all individuals to have info, communication, and technological skills.

The information and knowledge society tends to favour harmony and social cohesion in both developed and disadvantaged countries. In developed countries, politicians present the Information Society as a means to solve problems such as unemployment or social inequalities. In less developed countries, social cohesion is also presented as one of the potential benefits of the Information Society, insofar as it will promote economic development, favour a more equitable distribution of wealth, reduce disparities between rural and urban areas, or between rich and poor, and will help racial and religious harmony and inclusion. All this will be achieved through increasingly powerful communication infrastructures, which will allow: a greater level of access to information and a higher level of democratic participation as well as a strengthening of the national culture of each country. Therefore, the information skills of individuals, not only basic literacy but also information literacy, are essential, and this is also an area of activity for information professionals.

The definition of Information Policies includes the creation of information systems based on libraries and archives, but not only. With the progressive application of computer technologies applied to the entire information life cycle, they also began to cover aspects related to information and communication technologies. Information Policies

present porous borders as they present characteristics of several areas of political intervention such as Education and Defense. Furthermore, they involve many groups in society and have impacts in several different areas, such as scientific and social research, health, education, and even issues of democratic participation, citizenship, and law. Information policies are naturally influenced by political decisions in other fields and by options of a non-political nature: informational behaviour of individuals, marketing strategies of publishers, and choices of communication technologies are some examples.

In fact, according to UNESCO, Information Policies have several intervention instruments: legal instruments (constitutions, laws, regulations, international treaties, and others); professional instruments (codes of conduct, codes of ethics, reflections, etc.); cultural instruments (customs, traditions or social values); micro policies (relating to an organism) and macro policies (applied at national, international level), [13]. UNESCO had and still has great importance in this area, basing its activities on Article 19 of the Universal Declaration of Human Rights (1948), which advocates the right to information "Article 19 Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers", [14].

3 Information Management

Correct information management, based on current and fair information policies, requires the coordination of information-related components: the development of information resources and services, data production and collection, personnel specialized in information, technology, and facilities; the means of accessing and disseminating information, marketing and managing documentary resources; the promotion of efficient use of information, by training users in research and the exploitation of information and also a better perception of the value of information; the development and coordination of national research activities; participation in international information activities, in the fields of networks, collaborative/common, info documental resources, transfer of information technologies, etc.

[15], proposed that information systems should be transformed into cooperation networks - the National Information Service System - with the direct action of the State (which plans, coordinates,

and advises). The author uses a systemic approach and emphasizes the creation of an information network using informatics applied to all the services and resource tasks of the information units. This was also the approach suggested by [16], for the creation of information systems in developing countries and which, after almost 30 years, is still relevant.

The concept of Information Policies involves, as already mentioned, supra-governmental and governmental laws, sectoral legislation, implementation and use of technologies, and creation, access, and use of information. In its human and social aspects, citizens have obligations and rights and must be informed and therefore have access to reliable information and have the skills to interpret that information and apply it consciously. In the European Union, the premise is that access to information is necessary for the citizen to have effective participation in social, economic, and political life.

Effectively, information policies embody the general framework in which information management takes place; however, it differs from information policies because it focuses on the search for practical solutions to speed up information flows in concrete organizational contexts.

3.1 Informational Heritage and Sustainable Development

[17], claims that Information Professionals assume the central role in the management of information resources through the identification and safeguarding of heritage, regardless of its nature, since the disciplinary integration between Information Science and Heritage occurs around the same object: information. Information professionals use their area of expertise to their advantage, promoting the safeguarding and sharing of social and cultural, [18], natural and environmental heritage, both imbued with information, communication, science as well as "situated knowledge" (in a given context, time and space), [19].

The strategic approach to safeguarding cultural heritage is in line with the work of [20], [21], [22], and the whole cultural heritage includes living traditions inherited from our ancestors and transmitted to our descendants. However, in life in society, there is a cultural choice underlying the desire to bequeath this heritage, which, according to [23], promotes a sense of belonging to future generations. The central element of the concept of heritage is its ability to symbolically represent a sociocultural identity, [24], in the sense of

belonging to a collective of “imagined communities”, [25]. The UNESCO Convention for the Safeguarding of Intangible Cultural Heritage (2003) presents the necessary measures to ensure the viability of intangible cultural heritage, providing the revitalization of the various aspects of this heritage and considering that different types of assets require different and appropriate measures. The identification, collection, and safeguarding of community info cultural heritage, promoting its development and sustainability is an area of activity of the information professional and is strategically aligned with the UNESCO definition of cultural heritage (2003), which includes, among others, oral traditions, social practices, festive events, knowledge, and practices about nature.

The implementation of innovative multidisciplinary approaches focused on cultural tradition, nature, and human activity leads to the creation of initiatives that impact local development, many of them directly linked to sustainable tourism, distinctive and valuing the local heritage reality, [26] [27], [28], [29]. In addition, understanding residents' attitudes towards tourism development and its determinants is a crucial pillar for the design of tourism development strategies to promote sustainably, [30], and inclusive development capable of incorporating the community and everyone outside. Effectively, tourism accessible to all citizens is another important research question, [31], [32].

One of the challenges that arise is the unequal capacity to identify and duly activate this same community informational heritage for the benefit of these communities. Local government bodies, researchers, heritage holders, local communities, and their associations should act in partnership to enhance the heritage, in order to preserve it, emphasizing the mediation of information between these actors and also between them and the public on the part of information professionals, [33].

4 Information Heritage, Memory, and Information Professionals

[34], assume that citizens are increasingly aware of the historical value and ethnographic richness of their collective heritage, the mirror, and vector of their cultural identity, mobilizing themselves with determination in the urgent and incessant task of defending them. The various manifestations of cultural dynamism aim to preserve for future generations the precariousness of the material vestiges of millennia of human history and cultural

identity. Therefore, from an increasingly prospective awareness of heritage, a heritage science was born whose emergence and epistemological importance are obvious. For the authors, heritage, as a set of values, a mediation structure between the past and the present, a matrix for explaining the structuring languages of territories and landscapes, today assumes a privileged framework for conceptual reflection within the scope of the theme of development. Indeed, heritage, especially through its cultural component, is a recurring theme in the development paths. However, the capacities to identify and activate these values are uneven across places and societies.

The notion of heritage arises “when an individual or a group of individuals identifies an object or a set of objects as their own, [35],”. The determining element that defines the concept of heritage is its ability to symbolically represent an identity, [36]. And since symbols are privileged vehicles of cultural transmission, human beings maintain close ties with the past. It is through this past-present identity that we collectively recognize ourselves as equals, that we identify with the other elements of our group, and that we differentiate ourselves from the others. The past gives us a sense of identity, of belonging and makes us aware of our continuity as people through time.

UNESCO, [37], presents a definition of cultural heritage “Cultural heritage does not end at monuments and collections of objects. It also includes traditions or living expressions inherited from our ancestors and passed on to our descendants, such as oral traditions, performing arts, social practices, rituals, festive events, knowledge and practices concerning nature and the universe, or the knowledge and skills to produce traditional crafts”. The adoption of the Convention for the Safeguarding of Intangible Cultural Heritage was decisive because it was the first legal and binding instrument expressly directed to this type of heritage (not based only on physical objects, but also on contemplating memory). According to this Convention, [38], the term safeguard encompasses the measures implemented to guarantee the viability of the intangible cultural heritage, such as the identification, documentation, research, preservation, protection, promotion, enhancement, and transmission (through formal and non-formal education and training of individuals), promoting the revitalization of the various aspects of such heritage. The Convention also recognizes the need for different and appropriate measures to promote

the protection of different types of assets (UNESCO, 2003).

Concerning the connection between Information Science and Museology, [39], considers it important to understand the binomial mind fact-artifact: Mindfact is the mental and emotional idea/representation, information ready to be materialized; Artifact is the material and functional product idealized or derived from mental and emotional representation.

[40], places Museology within Information Science and designates the information-bearing object as INDOC (INformation-DOCument object) because the knowledge that can be obtained from it comes from the information gathered about the object and also from the information raised by the object. For the author, museology focuses on cultural and heritage information, and musealization is one of the basic functions of the museum. Memory is an omnipresent concept. For, [41], the Museum of the Future is a living structure and a mechanism of constant challenges between Man and Heritage. The integrative nature of today's society promotes openness and interdisciplinarity. Heritology is a conception of Sola, presented as the study of the future of collective experience, i.e., a science focused on the concept of total heritage, assuming an integrative vision of the museum's collection – a “total museum” (total memory).

But, to fully value information as a human and social phenomenon, it is also necessary to intervene in education, collaboration, and forms of interaction with users, thus providing the promotion of literacies and means for accessing information. Whether regional or global, knowledge of the specific needs of users and information professionals resides in the legacy of the informational heritage.

In the Age of Information, Knowledge, and Networks, of the democratization of access to information, integration and survival of institutions in a more globalized world, the pertinence of the mediating role of the information professional is reflected in their (new) roles, functions and needs, where the forms and concept of mediation play a central role in defining objectives, strategies, and directions.

Reaching knowledge, more than physical access to technologies is required. It is necessary to stimulate the multiple cognitive processes, mediation, and contextualization that constitute prerequisites for apprehending and understanding formative and informative content. Thus, the Information Professional will also dedicate himself to the development of instruments and mechanisms

of mediation since access to information in conditions of equity is one of the main factors for overcoming social inequalities.

5 Conclusion

The construction of a free, democratic, and egalitarian society must understand the information-communication phenomenon in all its complexity. These new logics of mediation demand that the information professional, as a mediating actor, holder of a profile of experts in evaluating, select, and provide only useful and relevant information to the user who seeks it, acting as the guarantor of the past and the vehicle of the future, because we have emerged in a new era and the challenges demand integrated, systematic, meta-empirical responses, which probe new limits, corresponding to trans and interdisciplinary Information Science.

Sustainable development is achieved through the exploration of the heritage of a diverse nature, considering the reasonable use of resources and preserving the memory, species, and local natural habitats.

One of the impacts of tourism is the potential contribution to regional development. According to [42], tourism is an important element of the social and economic life of the regional community, as it reflects the real aspirations of people to enjoy new places, assimilate different cultures, rest, and benefit from leisure activities. But tourism also has an important economic value as it helps economic development and the environment of peripheral regions. Thus, cultural tourism is an important element in the development of a region and has contributed to promoting the involvement of communities with its history, its cultural attractions, and its social memory, [43].

The promotion of heritage is intended to enable local development, with the integration of the community and creating sustainability through tourism, as said by [44], [45]. With this usage of heritage, the need arose to research all informational heritage that already exists and is not written but is often intrinsic in communities, such as intangible heritage.

The information professional has always existed but was only subdivided into archivists, librarians, and documentalists, [46]. Increasingly, in the 21st century, we need to know how to monetize, responsibly and profitably, information, including informational heritage. The professional that, [47], identifies will be the mediator between producers and holders of information and their users and

consumers. Information, if used well, can become an essential resource for transforming society, [48]. The information professional must be able to value information related to society and allow it to evolve sustainably and sustainably, through tourist activities, for example. These professionals have the skills to collaborate in the development of cultural and heritage tourism, using information registered in libraries and archives or unregistered, that may allow the reconstruction of old activities that can become tourist activities. The information professional has the role of guaranteeing the safeguarding of the informational heritage of the communities. Yet, the professional must identify the traditions transmitted orally in the community to avoid getting lost and to preserve themselves. It will also mediate the relationship between the community and traditions by promoting, through its collection, characterization, and registration, the creation of activities, such as tourism, that can positively impact the community and its sustainable economic development.

The close connection between Information Science, Heritage, Museology, and Memory seems clear. The object of study is informational, and the form it takes is now secondary.

The needs of users, individuals, or communities are another central element that must be considered. The current training of information professionals enables them to work in partnership, promoting actions for the recovery and enhancement of heritage and memory and sustainable economic development.

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The authors equally contributed in the present research, at all stages from the formulation of the problem to the final findings and solution.

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Conflict of Interest

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