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## Information culture turned to the higher education institute: values and beliefs as central elements

### ABSTRACT

**Introduction** Informational culture involves fundamental criteria, values and beliefs, which reflect on informational behavior consisting of the way information is interpreted and handled by individuals and groups, information favors productivity and the ability to perform routine work. The **objective** of the research was to analyze the informational culture aimed at the Institution of Higher Education (HEI), favoring that the background is constituted in Mozambique, and that it is consolidated from the values of the organization's philosophy on the part of its members, whose main members are professors, students and employees. **Methodology**, exploratory bibliographical research and a qualitative approach were used, seeking various sources, from scientific articles and theses that discuss the theme, prioritizing consultation with the BRAPCI database. **Results**, it is necessary to understand the informational culture, as it interferes in the construction and use of HEI norms and policies, stimulating acceptable and expected forms of behavior and information sharing, finally, **Conclusion** the values oriented to IC is based on new knowledge, continuous learning among professors, students and employees of HEIs in as in the hierarchical distribution, in the access, search and production of scientific and administrative knowledge.

### KEYWORDS

Values. Information culture. Organizational culture. Higher education.

## Cultura informacional voltada para instituições de ensino superior: valores e crenças como elementos centrais

### RESUMO

**Introdução** A cultura informacional envolve critérios fundamentais, valores e crenças, que refletem no comportamento informacional consistindo no modo como a informação é interpretada e manejada por indivíduos e grupos. **Objetivo**, da pesquisa foi analisar a cultura informacional voltada a Instituição de Ensino Superior (IES), privilegiando que o pano de fundo se constitua em Moçambique, e que se consolida a partir de valores da filosofia da organização por parte dos seus membros, cujos principais integrantes são docentes, funcionários e estudantes. **Metodologia**, utilizou-se a pesquisa bibliográfica de nível exploratório e abordagem qualitativa, buscando-se várias fontes, desde artigos científicos e teses que discutem a temática, priorizando-se a consulta à base de dados BRAPCI. **Resultados**, faz-se necessária a compreensão da cultura informacional, na medida que ela interfere na

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construção e o uso de normas e políticas de IES, estimulando formas aceitáveis e esperadas de comportamentos e compartilhamento da informação, por fim, **Conclusão** os valores voltados a CI tem base em novos conhecimentos, aprendizagem contínua entre docentes, discentes e funcionários das IES na como na distribuição hierárquica, no acesso, busca e produção de conhecimento científico e administrativo.

#### **PALAVRAS-CHAVE**

Valores. Cultura informacional. Cultura organizacional. Ensino superior.

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**JITA:** FK. Information culture.

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## 1 INTRODUCTION

Information culture (IC) involves social behaviors, attitudes and values that influence the way people use, interpret and assimilate information and knowledge within the organization environment.

Organizations adapt unique practices tailored to their needs, influenced by the availability of access to and treatment of information. These practices are further shaped by how individuals use information within their work contexts in a society that emphasizes information analysis, which, in turn, not only permeates but also support organizations.

For information society, information represents a strategic advantage, and its influence is a crucial element that favors productivity and individuals' work performance. Therefore, valuing information and the potential behaviors that emerge from and are associated with it should continue to be a priority on the organizations' agendas, reflecting their interests and concerns.

In this case, it is necessary to define what cultural value is, considering its central effect on the behaviors of individuals and organizations. Johnson (1997, p. 247, our translation), argues that it is a "[...] common idea about how something is classified in terms of social inequality, merit or relative social perfection". The author also points out that they are used to classify abstract things, objects, experiences, behaviors and characteristics of a person and, someone's 'states of being'.

Information culture (IC) in an organization is applied to its collective, it facilitates the relationships among its members through its underlying philosophy, influencing training, the development of skills and practices across all organizational levels. Furthermore, IC influences the selection and implementation of technology, tools, the choice of management models, and the effective use of information. In this context, this research analyzes IC centered on Higher Education Institutions (HEIs) considering that individuals, groups and organizations should use information critically, being able to select skills and choosing reliable sources for decision making and performing daily tasks.

For the research, bibliographic research was conducted using various sources of information, such as scientific articles and dissertations that focus on the topic, including searches on the BRAPCI database.

This research aimed to address the question: "What are the values centered on information culture within Higher Education Institutions"? From this research question, the general objective of this investigation was established: to identify the values of information culture for a HEI.

The discussion considers the regulatory framework pertaining to Higher Education Institutions in Mozambique, referencing the country's strategic plan for Higher Education - PEES (2012-2020). According to this document, HEIs in Mozambique are legal entities governed by public or private law, endowed with legal personality that enjoy scientific and pedagogical, administrative, disciplinary, financial and asset autonomy, and are categorized based on their mission, ownership type of ownership or funding model (Mozambique, 2012b).

HEIs aim to equip individuals with the skills necessary to the job market. These organizations foster a culture of learning by shaping behaviors through individuals' attitudes, deeply linked to information culture for the purposes of this discussion. Furthermore, HEIs are recognized as the primary educational organizations that, similarly to libraries, play a vital role in encouraging skills related to accessing, selecting, using, and evaluating information to produce knowledge.

In turn, Fernandez and Ponjuán Dante (2014, p. 27) argue that HEIs distinguish themselves more prominently than other environments in several aspects, as they foster: 1) strong feelings of beginning or rupture of the space for attributing new knowledge; 2) short or long learning lifecycle for students and continuous learning for professors and scholars; 3) a

hierarchical distribution of authority levels and information access and; 4) pursuit of scientific knowledge. Consequently, the relevance of conducting studies on HEIs in relation to values centered on information culture, is highlighted.

In the collection of higher education legislation (Moçambique, 2012a, our translation), it is stated that higher education institutions are characterized by:

- a) **Universities:** institutions that have human and material capacity for teaching, scientific research and extension in various knowledge domains, providing theoretical and academic training, being authorized to grant academic degrees and diplomas;
- b) **Higher institutes:** specialized institutions affiliated or not to a university, which are dedicated to training and research in the field of science and technology or professions, as well as extension, and are authorized to confer academic degrees and academic diplomas;
- c) **Higher schools:** higher education institutions affiliated or not with a university, a higher institute or an academy, which are dedicated to teaching and extension in a certain field of knowledge and which are authorized to grant academic degrees and diplomas;
- d) **Higher polytechnic institutes:** higher education institutions affiliated or not to a university, which offer general studies or professional training and which are authorized to grant certificates, excluding the doctorate level, reserving the grant of postgraduate degrees to those affiliated polytechnic institutes;
- e) **Academies:** higher education institutions dedicated to teaching in specific areas, namely arts, literature, technical skills such as military and police, specialized training and commerce, being authorized to grant academic degrees and diplomas;
- f) **Faculties:** primary academic units of a university or higher institute that works with teaching, research, extension, and learning in a particular field of knowledge involving the interaction of several academic departments and the provision of education leading to obtaining a degree or diploma.

Thus, the significance of the research lies on understanding the information culture within HEIs in Mozambique. Consequently, there is a need to examine scientific databases to identify the extent and development of scientific output on this topic over time.

In this sense, the scielo.org database was chosen, considering that it is an Ibero-American database of journals and books, enabling greater proximity in terms of the treatment given to the topic. Therefore, 'information culture' was chosen as a descriptor to be used in the search field, without limiting the searches to keywords or titles. The result of the search carried out in February 2023 shows the retrieval of 67 documents. When adding the descriptor 'higher education institution', no documents were retrieved. Furthermore, it is observed that the retrieved documents began in 1992, showing irregularity, but with a growing curve, indicating academic interest in revisiting the topic in its different possibilities over the last 30 years. One possible reason for the persistence in conducting research on this topic is that it encompasses various applications and challenges. Additionally, it becomes necessary to investigate it whenever tools, technologies, or management models come under scrutiny in fields such as information science.

A second survey was carried out on the BRAPCI database, adopting the same keywords for the search, whose retrieval resulted in 218 documents, indicating some of the possibilities for treatment given to the topic. They addressed topics such as the application in the business environment, in the academic environment, or linking it to the information society, to the development of skills, among others. When the search included the expression 'higher education', the result is the retrieval of 3 documents, indicating that the issues relating the topic to higher education still require further studies.

## 2 LITERATURE REVIEW

### 2.1 Definition and timeframe of information culture and information as a cultural artifact

Information culture (IC) is configured in a context of construction, sharing and practices based on symbolic elements, necessary for society as its existence encourages the realization of conditions for the development of information skills and abilities regarding information quality and assessment. The identification of values centered on information culture for higher education institutions is relevant, as they are considered an inherent space for knowledge acquisition and sharing.

IC emerges in a diffuse and secondary way as a consequence of studies that began in the second half of the 1990s with research that related culture, information, performance, impacts of information and knowledge in an organizational environment flooded by information and communication technologies (ICT) (Moraes; Barbosa, 2015). On the other hand, for Santos and Valentim (2018, p. 69) there are disagreements about the origin of information culture, considering that it emerged in 1970, through research on the information society.

A second explanation for its emergence is that it occurred in the 1980s, when organization culture became relevant in the face of issues brought about by the adoption of computer systems within organizations. Ginman<sup>1</sup> (1988) is considered a precursor to the use of the term 'information culture', highlighting the interaction between information culture with regard to the interests and use of information (Choo; Bergeron; Detlor; Heaton, 2008). Furthermore, this culture is understood as the dynamic "[...] in which the transformation of intellectual resources is maintained alongside the transformation of material resources." (Ginman, 1988 apud Choo; Bergeron; Detlor; Heaton, 2008, p. 793).

Information culture is perceived as the ability to understand and also use printed information in daily activities, at home, at work and social events, in order to fulfill one's objectives, generate knowledge and potential (Visbal; Gonzales, 2000).

Authors such as Curry and Moore (2003) understand IC as a culture in which

[...] the value and utility of information in achieving operational and strategic success is recognised, where information forms the basis of organizational decision making and Information Technology is readily exploited as an enabler for effective information systems (Curry; Moore, 2003 apud Choo; Bergeron; Detlor; Heaton, 2008, p. 793).

Information culture is based on social and technological factors, economic changes in products, values, lifestyles, in relation to information or the network society, new skills and the development of new skills (Kisilowska-Szurmińska, 2015).

According to Woida (2017), it is easier to discuss information culture within the social and educational sphere as they constitute fruitful spaces that strengthen specific behaviors of information seeking, recording and producing by individuals.

Thus, information is understood as cultural artifacts conceived, constructed, perceived and supported by social perceptions that originate from the relationship between members of a group and with sources external and internal to the organization, and these cultural artifacts receive attention in the process of searching, producing and recording as they are valuable for solving problems.

Likewise, individuals produce artifacts based on socio-historical aspects, which establish meanings in the social scenario based on internal characteristics of the organization regarding its production (Martelo, 1995).

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<sup>1</sup> GINMAN, M. Cultura da informação e desempenho empresarial, IATUL Quartely, p. 93-106, 1988.

According to Woida (2008), information culture has been favored by the interaction of three elements: people, information technologies and information, which constitute inseparable elements of the information society (IS). Furthermore, with regard to economic factors, information plays a fundamental role in assisting in decisions about income creation, creative use of content, tools, and potentially lead to innovation focused on products and services.

In this order of ideas, IS is understood

[...] as a mode of social and economic development in which the acquisition, storage, processing, valorization, transmission, distribution and dissemination of information”, leading to knowledge creation and satisfaction of citizens and companies, in which society plays a “central role in economic activities, in the creation of wealth, in defining the quality of life of citizens and their cultural practices” (Livro Verde, 1997, our translation).

It is noteworthy that information culture emerges in a context of competition among companies and countries, at a time when society builds itself and reaffirms itself as “information”, IC plays a role in the production and use of information and how its symbolic elements achieve influence through central values and beliefs about management and its results.

## *2.2 Dimensions, functions and types of information culture*

The types of information culture (IC) aim to promote effective management, norms and behaviors concerning the need for information, to stimulate and cooperate in attitudes about information (Choo, 2013). From this perspective, sharing the HEI values, based on research, training, extension, innovation and institutional internationalization, is important.

IC encompasses two principal dimensions (Choo, 2013 p.776): a) information values and norms centered on information control and integrity, focusing primarily on information sharing and flow. This dimension highlights the organization’s valuation of information use and collection to manage internal activities, performance, sharing, collaboration and innovation; b) information behavior essentially involves information seeking and use within organizations' environment, with especial emphasis on the external environment, as based on information from external sources, organizations can anticipate and adapt to changes.

According to Marteleto (1995), the materialization of the information object becomes relevant in the processes of production, distribution and consumption. In this case, production refers to symbols that determine assumptions, processes, systems of production, circulation and consumption of cultural goods and are revealed in: artistic, scientific, philosophical, educational production, followed by social spaces of consumption and dissemination through publishers, libraries, archives, museums, including the cultural goods industry.

In turn, Woida (2017) highlights that:

[...] information culture interferes with the level of consumption of information services; foresees movements of resistance to values, beliefs and rituals; determines information use habits and interferes with human resources and knowledge management policies and that contribute to document management (Woida, 2017, p.17).

Conversely, authors such as Marchand, Kettinger and Rollins (2001, p. 70 apud Moraes; Barbosa, 2015, p.135) suggest that information culture can be a model “[...] for managing and utilizing information effectively”, conceiving IC as a model of information orientation (IO), characterized by three vital capabilities: a) related to information technology, b) information management, value and behavior related to information, c) the organization's capability to stimulate and enable the effective use of information. Thus, there are different



cultures within the organization that influence whether information is established as effective or not.

For Choo (2013), the types of culture are based on values, information norms and information behaviors, constituting quadrants, composed of four types of information culture: result-oriented, rule-following, relationship-based and risk-taking, which in turn, are described based from five attributes: based on information management; information values and norms, information behavior in terms of information needs; information seeking and information use. According to Choo (2013, p.776) the types of culture are:

- 1) *result-oriented culture*, has objectives in information organization, stimulating competition to achieve success in the market, with a greater focus on external information in relation to sources, customers, partners, governments, competitors, markets in order to learn their profiles and performance assessment data.
- 2) *rule-following culture*, information is managed to control internal tasks over rules and policies with reliable information, standardizing processes, presenting improvements and effectiveness using sources such as policy documents.
- 3) *relationship-based culture*, information management provides communication, participation and identity around the sharing and active use of information that encourages collaboration and exchange, in which sources have good relationships among colleagues.
- 4) *risk-taking culture*, consists of information management that promotes innovation, creativity and ideas, in which information values and standards highlight the sharing and use of information in the design of new products, with boldness and emphasis on external information. Thus, organizations tend to seek ideas for new products and changes in the environment.

For Choo (2013), these types of culture constitute sources to boost creative, visionary individuals, specialized in markets and technologies, whose relevance lies in identifying opportunities. In this way, it is understood that most organizations have different levels, norms and behavior of all types of information culture.

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### 2.3 Values of information culture

Choo (2013) understands that

[...] information values and norms emphasize sharing and the proactive use of information. These values promote collaboration, cooperation and the willingness to take the initiative to contribute and act on information. There is a focus on internal information (Choo, 2013, p.777).

Considering that a HEI is grounded on the principles of research, training, extension, innovation and institutional internationalization, a precedent is set for the values of information culture (IC) to become central. In this order of ideas, IC is characterized by links with themes and practices about teamwork, innovation, quality, productivity, communication and decision making, with the transformation of information into a strategic resource, evolving into an analysis of information flows.

It is clear that the interest in developing IC should emerge within the organization itself, incorporating it as a natural norm, characterized by being collective and adopted as a way of acting, as well as stimulating the culture of learning through changes. Consequently, the organization develops to a phase in which the existence and use of information are crucial for routine activities (Rasera, 2002). In this sense, values emerge in different situations, and are perceived in rituals to which individuals are subjected when carrying out work. Thus, “Values

are important parts of all cultures because they influence the way people choose and how social systems develop and change” (Johnson, 1997, p. 247, our translation).

With this scenario, valuing information in knowledge generation becomes fundamental, including as a stimulus for practices and ways of thinking that promote the collective to manage information in a more productive way. Such practices reveal the elements of culture, including those mentioned in the literature: norms, leadership policies, alliance, motivation strategies based on information sharing related to the values promoted by the organization and aimed at members. The advantages of adopting a standard of shared corporate values aimed at managing and valuing information can result in decentralization in decision making, with greater staff involvement, more efficient skills and behaviors, better communication and attention to the needs of organization members, increased teamwork, support for people and problem solving as a team, also aiming to assess the importance of professionals' participation in the transformation of information activity, based on the organization's goals and objectives (Fernández; Ponjuan, 2014). Thus, values are connected to information sharing, presenting criteria on how to conceive information.

In turn, norms are standards and rules accepted and valued by the group and which dictate rules on information behaviors considered normal for that context, putting into practice everyday activities, as well as seasonal and low-frequency activities. In this line of ideas, norms can also be informal, with undocumented information about the group's daily life, based on the definition of expected and relevant behaviors for socialization in the organization (Choo; Bergeron; Detlor; Heaton, 2008).

Choo, Bergeron, Detlor and Heaton (2008) included the descriptive norms, among the norms present in information culture, as they present a description of what several people do in the same situation and detail which behaviors are expected when carrying out work, whose values and norms result in information practices with standards continuous processes that interconnect people, information and technology in the course of performing work.

Fernandez and Ponjuán Dante (2014) discuss the materialization of IC requiring the education and self-learning of individuals in the development of information management in the organization. According to Smith (2013), the IC success consists of the value of information management through standards and actions to promote shared objectives in information values and use, aligning organization and information culture. Woida (2008) considers that both have different functions, in which the first one is concerned with discussing broader issues, being described as complex, with more comprehensive values, and the second one, is linked to the specificities of the organization with a focus on the role of information and ICT. Therefore, the values that pertain to information culture will always be specific and focused on information.

### 3 METHODOLOGY

This section refers to the adopted methodology, a crucial element for achieving the research objective, whose study is characterized by being an exploratory bibliographic study with a qualitative approach.

Bibliographic and documentary research was conducted. The bibliographic research was conducted with the objective of learning concepts, as well as identifying the timeframe of information culture and information as an artifact, types of information culture, values of information culture, information culture centered on HEIs.

In this study, different supports are valued, including tangible materials, in digital libraries and repositories to facilitate the recording, access and efficient use of information in the environment, in many cases, configured as hybrid.

The bibliographic research used dissertations and scientific articles as references. Bibliographic research is understood as the execution of a methodological procedure “[...]”



capable of generating, specifically in little explored topics, the postulation of hypotheses or interpretations that will serve as a starting point for other research” (Lima; Miotto, 2007, p. 43, our translation).

In this way, bibliographic research or secondary sources, covers all publicly available bibliography on the topic of study, from separate publications, bulletins, newspapers, journals, books, research, monographs, dissertations, cartographic material, to oral means of communication, including radio, magnetic tape recordings and audiovisuals, such as films and television (Gil, 2008).

For this study, different sources of information and types of documents or materials were used, such as scientific articles and dissertations that address the topic. A search was conducted on the information science database (BRAPCI), and a survey strategy combining two terms was adopted: "Information Culture in Higher Education". A total of 59 articles were retrieved, which allowed the identification of actions developed at the HEI to promote the practice of information culture among members, with emphasis on faculty and students.

Documentary research was also applied in this study based on the following documents: collection of higher education legislation, and strategic plan for higher education in Mozambique, searching for concepts, characteristics and classification of HEIs. In this way, documentary research was applied using official, administrative, legislative documents and decrees.

Documentary research may include written documents as a source of data collection or not, and primary sources. It is close to bibliographic research, but the difference lies “[...] in the nature of the sources, as documentary research uses materials that have not yet received analytical treatment, or that can still be reworked” (Marconi; Lakatos, 2003, p.174, our translation), and may also refer to the researchers' compilations, documents from public or private archives, parliamentary, administrative, legal, official publications, statistics as well as illustrations such as photographs, magnetic tape recordings, graphic maps, and films.

Visbal and González (2000), Woida (2017), Dudziak (2010), Fernández and Ponjuán Dante (2014) are highlighted for their direct and indirect discussions on the topic, and are therefore used as a foundation for the discussion proposal.

For Gil (2008), exploratory research is developed aiming at providing an overview of a given phenomenon and normally involves bibliographic and documentary research, non-standardized interviews and case studies. In this way, bibliographic survey was used, which constituted the first phase of knowledge of the topic. The qualitative approach allowed us to specifically analyze information culture in higher education, highlighting its facts and processes, without the concern of measuring the data collected, which essentially occurs in the quantitative approach which requires data analysis in experimental research and in surveys (Gil, 2008).

## 4 RESULTS

### 4.1 Information culture centered on higher education institutions

For Visbal and González (2000), HEIs play an important role in promoting the development of skills through knowledge transmission. ICTs constitute a framework for different organizations, including those operating in the academic area, as they facilitate information access and sharing, and foster interaction across different universities.

The main universities in industrialized countries have guided their approach towards the development of information culture [...] which facilitated the development of the set of skills and attitudes for the beneficiaries of these programs (university directors, professors, researchers and students) based on a new information management through the increasingly intensive use of ICT (Visbal; González, 2000, p.49, our translation).

Even so, information resources are deficient in the so-called information society, which has been in permanent correction in recent decades. Although information and computational culture do not have the same designation, Woida (2017) warns that:

Information culture is not synonymous with computational culture, it is necessary to have specific skills to produce and assess the quality of information, expressed in skills such as being able to motivate other members of the organization and stimulate information flows and, finally, information culture emphasizes the use of information through behavioral patterns that reflect information literacy (Woida, 2017, p.71, our translation).

The effects of this dynamic that transforms information culture into behavioral patterns is also noticed when groups of academic nature, made up of members who have the same objective, promote the sharing and cohesion of feelings and attitudes within the community, noticing such effects in the community the late 80s. Furthermore, it is necessary to consider the existence of characteristics, forms and tools for the description of IC (Fernández; Ponjuán Dante, 2014).

In this context, the process of disseminating audio visual culture in which there are various forms of communication and use of text, image and sound, as in the case of printed culture, highlights the following aspects: visual capacity of the word, rectification and commercialization, which consist of rigorous recording and dissemination, which was not previously the case of orality. This fact began through the use of writing specifically based on knowledge of the alphabet, through which the massification of content was possible, and would later be intensified by typography and technology in the production of scientific publications and book culture. It is clear that in HEIs, as in other organizations, individuals are characterized by belonging to different ethnicities, social and economic groups, age groups, preferences and needs, which in turn influences the execution of processes in daily activities among professors, students and other members (Dudziak, 2010).

Thus, Smith (2013), when discussing different types of culture in the organization, highlights the factors: demand for cultural, social, educational, cyclical and economic policies, technological advancement, research on organizational culture, values focused on information, in which organization members have varying attitudes. In this way, ICTs are used to access more sources of information, guiding information activities and processes.

In this context, HEIs should have collaboration systems capable of creating basic and advanced literacy habits. According to the American Library Association (ALA) (1989), IC is understood as a necessary condition for individuals to have information literacy, starting from the recognition of the information need to locate, evaluate, use and produce knowledge through

its continuous apprehension in carrying out activities and decision making.

The dynamics to promote IC include: a) online learning, which consists of knowledge exchanging, manipulating, accessing, processing, communicating with behavioral patterns for effective use of information; b) use of infotechnologies that affect the perception of resources, quality information, organization, distribution of forms of communication that enable knowledge exchange in databases that manage and monitor critical, efficient searches, with digital inclusion, continuous training of professors and students and administration in academic environments through the use of knowledge and management strategies (Fernández; Ponjuán Dante, 2014). ICTs stand out in this academic environment and in the promotion of an information culture, which can be seen in the literature, as in Dudziak (2010, p. 222), who considers them to facilitate the promotion of multimedia educational activities based on training students and professors in the use of ICT to stimulate information productivity.

According to Visbal and Gonzales (2000), HEIs should assist in teaching, research and extension. However, some limitations related to the absence of common interests are mentioned: internal cultural environment (virtual and physical environment); interaction with the external cultural environment in relation to economic, political and social sectors, including other communities; certain levels of information literacy sharing their own information and organizational culture, as well as information, skills, beliefs, and traditions associated with their flexible management that influence the process of leadership, participation, motivations, informational creativity and decision making. It is understood that electronic and analogue materials such as digital libraries and repositories coexist in the same environment and offer information services efficiently.

According to Fernandez and Ponjuán Dante (2014), there are characteristics and spaces for IC aimed at HEIs, in many cases involving the formation of a hybrid environment that stimulates the development of this culture: i) presenting the institution with the mission, vision, objectives, strategic actions, taking into account their role in society, today and for the future, through strategic action plans, reflected in the organizational chart and information flows; ii) indication of the presence of traditions, beliefs, experiences, information skills practiced in the organization.

For Cornella (1999 apud Visbal; Gonzales, 2000, p. 52, our translation), "there is a direct relationship between years of education and informational performance, the higher the education, the better the IC, verifying different levels in relation to the informational performance of citizens with less education ". It is clear that the less information culture there is, the less likely it is to perform, adapt, learn and respond to the challenges of the organization's context in strategies that favor competitiveness and productivity.

In this way, Visbal and Gonzales (2000) understand that academic spaces are places that stimulate and foster conditions for the realization of information culture in relation to: a) a strong feeling to acquire new knowledge; b) information learning for students, and continuous learning for professors; c) hierarchical distribution, levels of authority and access to information; and d) search for scientific knowledge.

According to the ALA (1989 apud Cuevas-Cerveró; Marques; Paixão, 2014), HEIs should integrate literacy into their programs, in order to equip individuals with the skills in information literacy. Literacy essentially refers to writing and reading, encompassing different forms of language composed of audiovisual, digital or computational skills, multimedia, networks, cultural, library and informative-informational skills, expanding new writing and reading skills, allowing greater social inclusion of the individual.

University departments naturally follow relationship rules, focusing on the internal environment and compliance with rules, regulations and policies (Fernandez; Ponjuán Dante, 2014). In this way, information-oriented values and behaviors are directly related to the perception, creation, and use of information, supporting the idea that they establish interaction mechanisms between people and the physical and virtual environment (Choo; Bergeron; Detlor;

Heaton, 2008).

Furthermore, changes in reading culture shaped by the technological and social context which emerge from the evolution of ICTs, interfere with individual behavior and information literacy, and indispensable life skills (Kisilowska-Szurmińska, 2015).

In this way, IC centered on HEIs is inseparable from flexibility whose change occurs according to the needs imposed on the organization. According to Dudziak (2010), the application of organizational and national policies to achieve IC should be disseminated within HEIs as a stimulus for the development of information skills, based on values and practices centered on the development of skills in students regarding the use of ICTs and also with a focus on learning.

Therefore, the application of information culture in HEIs occurs with the development of actions carried out by members of the organization, in this case, professors, student researchers and other social groups that make use of information management based on ICTs. Individuals belong to different groups and are linked to different subcultures, which resort to attitudes and behaviors that interfere in daily processes at HEIs. Furthermore, ICTs are important in guiding activities and procedures.

With various manifestations of the valorization of information, materialized in tangible materials, in digital libraries and in repositories designed to facilitate the recording, access and efficient use of information, demonstrations of values focused on information culture in HEIs proliferate, which are characterized by emerging in hybrid environments supported by the organization's action plans, traditions, skills and practices.

Furthermore, values offer conditions to consolidate IC, and they create or reiterate the need for new knowledge, student learning and continuous learning for professors. In parallel, IC integrates the determinants of hierarchical distribution and authority of access to information and emphasizes the search for scientific knowledge that contributes to the interaction between individuals in physical and virtual environments.

Thus, the literature presented in section 4 shows the inclusion of policies, regulations and standards for the use of information as fundamental.

## 5 CONCLUSION

Information culture focuses on management, communication and organization, with an emphasis on the strategic use of information. It is necessary to share information via HEI standards and policies, encouraging acceptable and expected forms of behavior, with a focus on research, training, extension, innovation and institutional internationalization of HEIs. In response to the research problem presented in the introduction of this article: 'What are the values centered on information culture for Higher Education Institutions?'. The complex environments of HEIs encompasses interactions between the internal and external dimensions, as well as the everyday activities of individuals. It is underpinned by norms, values and informational behaviors shared and accepted within the organization. Furthermore, this environment is grounded on the generation of new knowledge, continuous learning for both educators and students in the realm of scientific knowledge production as well as for staff members in the creation of administrative knowledge pertinent to HEIs.

Values also include elements about what is important in terms of hierarchical distribution, access, search and production of scientific or administrative knowledge.

The development of an information culture (IC), the adoption and consultation of reliable sources of information, the construction and application of policies and regulations by professors, students and other members of HEIs are included as part of the HEIs' routine.

The creation of a favorable and robust environment for the continuous stimulation of IC is also considered essential. Information should be increasingly valued, hence promoting

discussions, debates and knowledge construction constitute a process closely connected to regular training. It is vital to insert rituals and practices that embody the IC values and, and to highlight training in teaching and learning methodologies in the use of technological tools as a way of responding to informational needs with more skill and abilities to carry out everyday activities, stimulating and motivating both professors and students to embrace and spread this culture.

The limitations of the research are the number of studies presented in the theoretical framework. Furthermore, the HEI reference documents were included in the theoretical framework, but were not part of the discussion section, which could have enriched some of the observations and inferences. Furthermore, it is suggested that research advances to assess, through a case study, the values and beliefs that HEI's actors perceive in HEIs in Mozambique, in addition to highlighting the crucial differences in sociological terms of these elements in practice compared to what the literature supports. Finally, these are partial results in the development of a doctorate dissertation.

## REFERENCES

AMERICAN LIBRARY ASSOCIATION (ALA). 1989. Available at:

<https://www.ala.org/acrl/publications/whitepapers/presidential>. Access on: 15 mar. 2023.

BEZERRA, F. A.; VERAS, J. N.; SILVA, A. S. R. Cultura digital na bncc: necessidade da competência informacional para o processo formativo do professor. **Brazilian Journal of Information Science**, Marília, SP, v. 17, 2023. DOI: [10.36311/1981-1640.2023.v17.e0230001](https://doi.org/10.36311/1981-1640.2023.v17.e0230001).

CERVERO. A.C; MARQUES. M. PAIXAO.P.B. Alfabetização que necessitamos: informação e comunicação para a cidadania. **Inf. & Soc.: Est.**, João Pessoa, v.24, n. 2, p. 35-48, maio/ago. 2014. Access on: 16 mar. 2023. Available at: <http://hdl.handle.net/20.500.11959/brapci/91881>. Access on: 17 mar. 2023.

CHOO, C.W. Information culture and information use: an exploratory study of three organizations. **Journal of the American society for information science and technology**, [S.l.], v.59, n.5, p. 792-804, 2008. DOI: <https://onlinelibrary.wiley.com/doi/abs/10.1002/asi.20797>

CHOO, C.W. Information culture and organizational effectiveness. **International Journal of Information Management**, [S.l.], v.33, n.5, p.775-779, out. 2013. Access on: 6 mai. 2022.

Available at: <https://www.sciencedirect.com/science/article/abs/pii/S0268401213000819>  
Coletânea de legislação do ensino superior. **Edição, Revista**, Maputo, setembro. 2012.  
Available at: [https://isetoneworld.ac.mz/imagens/phocadownload/Biblioteca/ES/1.LEI\\_272009.pdf](https://isetoneworld.ac.mz/imagens/phocadownload/Biblioteca/ES/1.LEI_272009.pdf). Access on: 15 mar. 2023.

DUDZIAK, E. A. Competência informacional e midiática no ensino superior: desafios e propostas para o brasil. **Prisma.com**, Portugal, n. 13, p. 220-237, 2010. Available at: <http://hdl.handle.net/20.500.11959/brapci/74442>. Access on: 16 fev. 2023.

FERNÁNDEZ, A. P.; PONJUÁN DANTE, G. La cultura informacional y su delimitación: el caso de los contextos académicos. **Ciencias de la Información**, Havana (Cuba), v. 45, 2014. Available at: <http://hdl.handle.net/20.500.11959/brapci/214208>. Access on: 18 jul. 2022.



GIL, A. C. **Métodos e técnicas de pesquisa social**. 6. ed. São Paulo: 2008.

KISILOWSKA, M. S. **Information culture as a new perspective for information science**. Agos., 2015. Available at: <https://x.gd/Yg7G7>. Access on: 19 jun. 2022.

JOHNSON, Allan G. **Dicionário de sociologia** : guia prático da linguagem sociológica. Rio de Janeiro: Jorge Zahar, 1997.

LIMA, C. S.; MIOTO, R. C. T. Procedimentos metodológicos na construção do conhecimento científico: a pesquisa bibliográfica. **Rev. Katálisis**, Florianópolis, v.10, n. especial, 2007. Available at: <https://doi.org/10.1590/S1414-49802007000300004>. Access on: 5 mai. 2022.

**LIVRO Verde Para a Sociedade da Informação em Portugal**. Lisboa: Missão para a sociedade de informação, 1997.

MARCHAND, D.A.; KETTINGER, W. J; ROLLINS, J. D. **Information orientation: the link to business performance**. New York: Oxford University Press, 2001.

MARCONI, M. A.; LAKATOS, E. M. **Fundamentos de metodologia científica**. São Paulo, 2001.

MARTELO, R.M. Cultura informacional: construído o objecto informação pelo emprego dos conceitos de imaginário, instituição e campo social. **Ciência da Informação**, Brasília, v. 24, n.1, 1995. Access on: 20 jun. 2022. Available at: <https://revista.ibict.br/ciinf/article/view/613>

MORAES, B. L.; BARBOSA, R. R. **Cultura informacional: uma proposta modelo com foco organizacional**. **Inf. & Soc.**, João Pessoa, v.25, n.3, p. 131-146, set/dez. 2015. Access on: 10 out. 2022. Available at: <https://periodicos.ufpb.br/ojs2/index.php/ies/article/download/21904/14533/58119>

Plano estratégico do ensino superior. 2012-2020. Available at: <https://x.gd/bOI9G>. Access on: 15 Mar. 2023.

RASERA, L. A. **A cultura e a pré-disposição para um ambiente de aprendizagem organizacional: um estudo da Isabela S/A**. Dissertação (Mestrado em Gestão Empresarial). FGV – Fundação Getúlio Vargas. Rio de Janeiro, 2002. Available at: <https://bibliotecadigital.fgv.br/dspace/handle/10438/4075>. Access on: 20 jul 2022.

SANTOS. C. D.; VALENTIM. M. L. P. A temática cultura informacional em teses e dissertações dos programas de pós-graduação brasileiros em Ciência da Informação. **RICI**, Brasília, v. 12, n. 1, p. 66-89, jan./abril, 2018. Available at: <https://periodicos.unb.br/index.php/RICI/article/view/11512>. Access on: 8 out. 2021.

SMITH, M.S. J. **A cultura informacional como alicerce de gestão contábil nas pequenas e médias empresas**. São Paulo. Tese (doutorado em Ciência da Informação) – Faculdade de Filosofia e Ciências- Universidade Estadual Paulista, 2013.

VISBAL, S. A.; GONZÁLEZ, F. G. Cultura informacional, estratégias para el desarroll de la sociedad de la informacion y el conocimiento. **Ciencias de la Información**, Havana (Cuba), v. 31, n. 2, mar-jun, 2000. Available at: <https://x.gd/mKPb7>. Access on: 11 jun. 2022.



WOIDA, L. M. A cultura informacional na documentação na espanha. **Ibersid**: revista de sistemas de información y documentación. Zaragoza, v. 11, n. 1, p. 67-74, 2017. Available at: <http://hdl.handle.net/20.500.11959/brapci/167855>. Access on: 17 fev. 2023.

WOIDA, L. M. Cultura Informacional voltada a inteligência competitiva organizacional no sector de calçado de São Paulo. Dissertação de mestrado (Ciência da Informação) Universidade Estadual Paulista, Faculdade de filosofia e Ciências, 2008. Available at: <https://x.gd/8F9QQ>. Access on: 20 jul. 2022.