INFORMATION MANAGEMENT AND ITS CONTRIBUTIONS IN DISTANCE TEACHING MODE

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ABSTRACT

The large amount of information, and the need to manage this intangible asset, made it imperative for contemporary organizations to know how to work with this element. Information management influences contemporary organizational models and establishes itself as an integral part of systemic and conventional processes. In turn, the digital revolution has changed life in general and increasingly affects all productive activities. As a result, it is natural to associate technological advances with resources with vast alternatives for information management. Information technologies are innovative ways of carrying out organizational activities and making information available. Education is no different. This study is a reflection on the implications and possibilities of Information Management as a way to increase the distance educational action, emphasizing the importance of information as a vital input for knowledge and considering the consistent commitment between both. Under the focus of the conception, importance and perspectives of the theme, information became evident as the essence of the knowledge construction processes; therefore, its management is essential so that useful and relevant information is always accessible, quickly and efficiently.

Key words: Information Technologies. Knowledge Construction. Distance education.

INTRODUCTION

Information, increasingly important and virtual, characterizes contemporary society and is the basis for the production of knowledge. Both from a social, political, economic and educational point of view, it has become indispensable, gaining greater dimension in the organizational management aimed at productive growth.

The advent of the internet has enabled a new space for the production and dissemination of information and, in this context, it is an object of interest in environments that face competitiveness and seek a continuous learning process. The availability of technological

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Information Management and its Contributions to Distance Learning Modality

resources contributes to better communication and supports corporate interaction and the development of organizational skills, adding innovation to the process of building knowledge.

According to Nunes (2005, p.105),

> it is difficult to fully understand or predict how an organizational environment will evolve, but we need to make room for transformation and innovation. Each service or product incorporates some knowledge and interactivity; the organization needs to be a space or a place for learning and transferring information, rather than just a physical or financial entity.

In this perspective, characterized by the information society and new technologies, distance learning has become increasingly more prominent, and has become an alternative that mobilizes people and institutions in search of continuous and independent learning, favored by the temporal and spatial flexibility of this modality education.

This study intends to address information management and its contributions in the context of distance learning, seeking to understand how the theme is related and linked in the teaching / learning process. In view of this concern, we will analyze the conceptions of information and distance learning in the contemporary technological scenario, as this is a way of introducing the need for information management and discussing the topic from the valuation of the factors that influence the quality of teaching the distance.

Information management is a relevant aspect to be considered in the educational process, especially at a distance, since relevant and useful information is an instrument of daily use, and its quick and effective access reflects knowledge production. Therefore, it is necessary to see if the sources of information are being considered and analyzed in the educational management process and in the continuous achievement of improvements.

The guiding objective of this study is to analyze the role of information management in distance learning modalities, conducting a bibliographic review on the topic and identifying benefits brought by information management to distance learning. Thus, this study fits the characteristics of a bibliographic research, as it aims to provide greater familiarity with a problem, improving ideas and enabling a more specific view of the topic addressed.

The design of this work involved phases that guided the determination of the plan. The identification of sources, obtaining and reading of materials and notes were the first steps. Thus,

Information Management and its Contributions to Distance Learning Modality

the knowledge analysis of the literature visualized theories from different angles, to obtain understanding and opinion. The basis on the theme of information management focused on significant aspects with regard to distance learning.

For better understanding, the work structure aims to organize your presentation. First, it proceeds to contextualize the subject, its development and discussions through chapters. Then, the conclusive ideas are presented through the final considerations, recapitulating relevant aspects of the context of the work, which ends with the bibliographic references mentioned in its course.

1 INFORMATION: CONCEPTION, IMPORTANCE AND PERSPECTIVES IN THE CURRENT SCENARIO

> We use, absorb, assimilate, manipulate, transform, produce and transmit information all the time, all the time. However, we do not have a precise definition of what information is. We do not have a definition that says what is and what is not information. We intuitively know what information is, but we cannot describe, in words, what information is. (SIMON, 2008)

The term information is very recurrent today and, as a concept, carries a variety of meanings, from everyday use to technical. In general, it is related to knowledge and communication, which in turn are currently responsible for personal and institutional development.

The role that information assumes is increasingly visible in this new order established by society, in addition to serving as a basis for leveraging new growth possibilities (LASTRES, 1999). According to the author, we have already moved from a model based on material products to another based on immaterial products and services, because information is an intangible resource that consists of one of the most important aspects offered at the present time.

Information is of increasing importance. In terms of management, it has become essential in strategic planning and in the introduction of new technologies, as it is a key element for adding value and creating competitive advantages. For Anthony (apud BRAGA, 1996), the strategic, tactical and operational functioning of any organization today has a fundamental need to obtain, know and use information. Attention to what happens both internally and externally in

an organization is a form of performance and prominence, since this process implies the speed and quality of decision making.

From an organizational perspective, information is associated with a set of data that add meaning within a context, that is,

> it is like a name that needs to be associated with age, color, affiliation, place of birth, address, profession, among others, in such a way that this set of attributes forms an informational record of a single person. (SOBRINHO, 2008)

In other words, it is necessary to know how to interpret the information, because its correct understanding favors the assimilation of knowledge, a decisive factor in the current world, in which knowledge enhances organizations in constant evolution. In this sense, the relevance of the role of information made it necessary to study it, and several sciences in the area emerged to the point of their impacts characterizing the era of the information society.

The advent of the internet is in fact a new space for the production of information and has contributed a lot in the field of treatment, access and transmission of information. In the face of today's society, the base of all knowledge and power that circulates in this networked environment, always connected, is information; however, for it to have value, its dissemination needs to be organized. In this light, we have access to too much stored data; however, they will only produce information if they are necessarily classified and ordered, so that a set of elements has meaning, constituting useful and relevant information according to each context.

According to Nunes (2005, p. 112),

> the main reason for the emphasis on information strategy is due to the fact that it is a continuous process, in constant development and that, consequently, serves as the basis for defining or redefining the guidelines of an organization.

The analysis of a large volume of data can become valuable information that determines the continuity of activities towards a goal. For McGee and Prusar (1994) it is in the context of the data that learning occurs, that is, information is the main vector in the process of building knowledge, which in turn is the foundation of important actions.

Thus, continuous improvement and the quality of the decision-making process are information-dependent actions, capable of creating significant value and keeping organizations unified, as information is an asset with differential potential and infinitely reusable; it does not deteriorate or depreciate, and its value is determined by the user (MCGREE & PRUSAR, 1994).

1.1 THE NEED FOR INFORMATION MANAGEMENT IN ORGANIZATIONS

An organization must be seen as a system, since its management involves all those who play their roles in search of a common goal. And a system can consist of subsystems, which are related to each other and integrate different functions that depend on a vital resource to support decisions: information.

Thus, an information system can contribute to the improvement of administrative processes, as it benefits the organizational structure and facilitates the information flow, consolidating the fast and accurate supply of subsidies to a management in continuous search for knowledge and growth. As stated by Nunes (2005), the development of information systems is used for the development of products, services and processes with the capacity to determine strategic advantages over the competitive forces that the organization finds in the market. In short, the evolution of organizations happens as they acquire skills to process their information.

Today, the role of Information Management is an advantageous requirement in all areas of activity. The need to promote knowledge generation is a relevant factor in the role of information management. This process streamlines decision-making and favors adaptations to changes. According to Borko (apud SILVA E RIBEIRO, 2002), information management investigates the properties of information, the forces that govern information flow and the direction of information processing, with a view to maximum accessibility and use.

Information management is able to develop information dissemination in order to meet the expectations and needs of those involved. It is responsible for maximizing its access through efficient and quality strategies, as well as, as a current form of management, facilitating the production and use of information, directly implying in more productive environments.

The need for speedy access to information and constant feeding of updated data is a basic premise in the contemporary organizational scope. Thus, information management facilitates its search, reducing the time of this process, in addition to making the productive environment more

Information Management and its Contributions to Distance Learning Modality

friendly. According to Santos and Ramos (2009), information management is identified as an essential activity to take advantage of competences and develop capacities, bringing competitiveness and flexibility to organizations, expressive qualities for success.

It is observed that the growing attention to the importance of information and knowledge in the contemporary organizational context emanates from the search for continuous improvement, innovation of products and services, performance evaluation and, mainly, the satisfaction of users who value quality differentials in products and services. In this sense, information management can contribute to the implementation of systems aimed at improving administrative processes, since information is the basis for planning the activities of any segment.

Ultimately, information management is a natural aspect of organizational life so that it is truly based on useful and relevant information. According to McGee and Prusar (1994), this management must not be treated as peripheral, it must be an integral part of organizational initiatives.

1.1.1 The impact of technologies on information management

> If you file income taxes, your data is processed by government computers. If you get a passport, your data is registered in a federal police database [...]. If you make purchases in the market, you go to the cashier, which drops the products in the company's system. For you to use the telephone, a complex computer-controlled communication network is used [...]. Information Technology, therefore, is not only synonymous with modernity. Above all, it is a necessity of the new times, after all, information has always existed, but not in such a voluminous and usable way. (ALECRIM, 2011)

Due to the current scenario, it is natural to associate technological advances with resources with vast alternatives for information management. Information Technologies - ITs are innovative ways of carrying out organizational activities and making information available.

Today, information and technology are inextricably linked and each day this interconnection becomes more sophisticated, in search of efficient vehicles for data transmission and network communication. Technology is an important factor in improving the use of information, as its value depends on the role played by it within organizations.

Information Management and its Contributions to Distance Learning Modality

In this sense, computerization provides mechanisms that facilitate the selection of truly prominent information, given the informational scenario in which we find ourselves. ITs enable the creation of virtual environments that promote the adequate flow for obtaining quick and effective access, being an expressive solution in the management of organizational information.

For Alecrin (2011), the technological universe of information is wide and does not depend on its application, as it covers several aspects to be considered: security, availability, adequate systems, better technology, legislation and so on. However, it affects the various areas of knowledge and its absence is uncommon at the present time, as it is present in the daily life of society as a whole.

The set of all activities and solutions provided with computerized resources, aimed at storing, accessing and using information, provides everything from higher quality work to cost reduction, since the specifications of instruments produced directly are greater every day for a given segment. The application of ITs according to each need is directly reflected in the performance of activities, whether from a personal or organizational point of view.

According to Santos and Ramos (2009), the life expectancy of an organization increases as information technologies can be used to improve the performance of those involved, speed up the execution of tasks, facilitate communication and internal and external interaction. The availability of information through these tools characterizes innovative ways of carrying out activities, influences the reduction of the organizational structure, allowing sharing at all levels of management.

In the operational field, sometimes the high technological level reduces human action, in addition to making the work repetitive. Nevertheless, in the scope of strategic management, it attributes greater autonomy to members, making information sharing more interesting and decentralized, in addition to contributing to the reduction of ambiguities inherent in decision-making. Therefore, according to Alecrin (2011), Information Technology is not only synonymous with modernity. Above all, it is a necessity of the new times, after all, information has always existed, but not in such a voluminous and usable way.

2 THE MANAGEMENT OF DISTANCE EDUCATION UNDER NEW TECHNOLOGICAL ALTERNATIVES

Information Management and its Contributions to Distance Learning Modality

"Distance education experiences will only bring the benefits indicated if they obey strict criteria of accessibility and quality." (BELLONI, 2008)

Today, distance learning - distance education - can be a powerful teaching tool, using computerized resources to support it. Among others, it can and has been carried out by different means, be it radio, post, telephone and, currently, it has gained momentum through the internet. The emergence of new technologies has substantially corroborated the growth of distance learning.

The diversity of interaction tools has made it possible to break geographical barriers of space and time, and the combination of these mechanisms provides a flexible and dynamic means for the establishment of distance education. New technologies have an important role not only as a means to distribute information and knowledge, but mainly as facilitators of the interaction necessary for any educational process, implying new roles, new attitudes and new methodological approaches (CASSETTARI apud SOUZA, 2010).

The advent of Information and Communication Technologies - ICTs - brought new perspectives for distance education, due to the production facilities, quick emission and distribution of contents, interaction with information, resources and people, as well as the flexibility of time and the break of space barriers. The development of educational portals, supported by virtual learning environments, works via the internet to transmit content with collaborative communication processes in the construction of knowledge. For Assmann (2005, p.19),

> what is new and unprecedented with information and communication technologies is the cognitive partnership that they are beginning to exercise in the relationship that the learner establishes with them. [...] their role is no longer limited to simple configuration, formatting, or, if they wish, framing complex sets of information. They actively participate in the step from information to knowledge [...] which is a human relational process, and not a mere technological operation.

The distance education modality places the student facing information, problems and knowledge objects in a more friendly way, through information and communication technologies. However, this type of teaching requires autonomy and motivation to be sufficient and to involve you in studies and participation in activities promoting self-learning. In practice, new technologies do not replace previous forms of distance learning, but become fundamental allies, with various alternative means, considerably increasing the conditions for learning.

Information Management and its Contributions to Distance Learning Modality

When we talk about new technologies combined with distance learning, the consequence is, increasingly, a growing trend towards initial or continuing training. The corporate world also benefits from this modality, not just for formal education. According to De Paula, Ferneda and Filho (2004, p.2),

> the choice of distance education modality, as a means of providing educational institutions with conditions to meet the new demands for agile and qualitatively superior teaching and training, are based on the understanding that, distance education distinguishes itself as an unconventional modality of education, capable of meeting with a great perspective of efficiency, effectiveness and quality the aspirations for universal teaching and also, as an appropriate means for the permanent updating of the knowledge generated by science and human culture.

However, the distance education process should consider the student as an active subject and capable of determining his / her self-learning, making it necessary to offer support services and interactive strategies through different media. From a pedagogical perspective, distance learning should promote the development of learning, demystifying the barriers of time and space between the learner and the facilitator.

Anyway,

> it is important to emphasize that EAD is a strategy, a teaching methodology in the service of Education. Thus, the course structure, curriculum and evaluation criteria will be the same as those approved for conventional courses. Only the assignments of the teacher, the teacher-student relationship, the means used to convey the information and the technical-administrative organization will be different. (By PAULA; FERNEDA; FILHO, 2004, p.3)

3 INFORMATION MANAGEMENT IN DISTANCE TEACHING MODE

Information management and distance learning are in line, as both emphasized their important role in relation to the use of new information and communication technologies. The concern with informational flows highlighted the role of information management. As a result, knowledge has gained increasing importance in all segments and distance learning provides this construction in an autonomous and effective way.

At the same time that it constitutes the main element of knowledge production, information also represents the means of synchronizing the different processes in an institution, thus generating a global character of management and learning. Therefore, it is the adoption of

Information Management and its Contributions to Distance Learning Modality
information management that builds a field of constant changes, in accordance with the moment susceptible to changes that we are going through.

In this perspective, information management provides distance learning with the diffusion of information and technical knowledge through communication vehicles, helping to build knowledge through dialogical communication, using multiple media. The educational process, in this aspect, can be built collectively, anchored under principles of criticality, creativity and contextualization (HACK, 2009).

In distance learning, it is necessary to do more than just announce information through computerized means; information management is what provides reflections and promotes discussions by enhancing the communication process, which in turn establishes a relationship to encourage students in the construction of knowledge. The organization and availability of information in a planned way makes the performance more dynamic and effective.

Information management allows the mastery of mechanisms for checking information and participating in virtual teaching environments, enabling technical administration and access to data. Therefore, managers will have effective control over the flow of information, maintaining and continuously improving the administration process of the teaching platform. Therefore, the possibility of managing an environment of interaction, exchange of ideas and knowledge production capable of contributing to the construction of the reality of those involved is created.

According to Hack (2009, p. 39), "it is necessary to look for strategies for continuous training that make it possible to sharpen and refine the management tools that will assist in the administration of educational processes that will lead to the construction of knowledge in distance education". In this sense, information management contributes as a strategic tool, as a virtual organization is dependent on the ability to process information and ensure a shared decision-making process.

To be cooperative, computer environments need to be developed using a user-centered perspective (SILVEIRA, 2005) - in this case, the student - in addition to being socially integrated into networks, to become engaging. Thus, distance learning, through its virtual environments, increases its performance with the integration and cooperative work provided by information management.

Information Management and its Contributions to Distance Learning Modality

According to Neves and Freire (2007, p.5),

> some questions are fundamental for the construction of an information management model in a virtual environment. [...] Are they:
> - Which information communication channel will be used for the production, organization and dissemination of information?
> - Who are the potential users?
> - In what format are stocks of information made available?
> - Which relevant categories should be part of the system?

In this light, the internet is the channel through which all types and supports of information circulate, being an ideal way for information management to promote a dynamic and interactive space, especially in distance education. The identification of this information is an important step for the manager, as this will define restricted or free access, meeting the needs of users. A website is an excellent format for the dissemination of information, as it supports several languages (sounds, images, texts), in addition to being well known and used. The categories are defined in view of each context, since they constitute a set of data that describe and inform something. In principle, some categories allow direct interaction between users and information, since they facilitate access with interactive tools and search tools.

In general, information management is responsible for maximizing access, connecting its users and developing strategies for efficiency and quality. This feature includes quick access to functions relevant to students and "aims to provide easy and intuitive information that the students need more often, without, however, having to navigate through numerous links [...], facilitating the search and reducing the consumption of time in this process ".

FINAL CONSIDERATIONS

Currently, we are increasingly dependent on the media and information. In fact, the success of distance learning does not depend solely on the technology employed, but goes hand in hand with the development of new technologies, creating opportunities and challenges.

The intensive use of technological resources in the learning process denotes greater accessibility, creating new demands for education. The virtual reality is increasing, however, the perspective of distance learning is to promote the development of all dimensions of human nature, implying citizenship and solidarity.

Information Management and its Contributions to Distance Learning Modality

This type of teaching is more easily available to people, anywhere; new technologies and the internet have broken distances and, in this virtual environment, develop strategies that allow the formation of responsible and active people, capable of creating and acting in a positive and coherent way in the world in which they live.

Thus, this field is constantly expanding, providing access to information professionals to expand their area of expertise and the performance of their functions. In addition, information management and distance learning are multidisciplinary areas and are developed through professional knowledge in different areas. In this study it was possible to reflect on the representation of the role of information managers in the society in which we participate and incorporate, allowing the rise of these professionals according to the challenges of the market.

Although prominent, the topic addressed revealed the need for further studies and communications, considering the few literature reviews on this topic. Information management is facilitated by the instrumentalization of technologies with various information processing applications, and thus promotes synchrony and tuning in the execution of processes.

The implementation of an information system in organizations is today an imposition, a survival requirement that involves subjective aspects, such as breaking paradigms and changing culture. In this way, information management contemplates the premises of distance educational action, because together they can empower people and establish a vital domain of knowledge to achieve their goals.

BILIOGRAPHIC REFERENCES

ALECRIN, Emerson. What is information technology? Available at <http://www.infowester.com/ti.php>. Accessed on July 7, 2011.

BELLONI, Maria Luiza. Distance education. Available at <http://books.google.com.br/books?id=BciuHdHIHPwC&printsec=frontcover#v=onepage&q&f=false>. Accessed on July 10, 2011.

BRAGA, Ascensão. Information management. Available at <http://www.ipv.pt/millenium/19_arq1.htm>. Accessed on: June 15, 2011.

HACK, Josias Ricardo. Distance Education Management. Leonardo Da Vinci University Center - Indaial: Uniasselvi Group, 2009.

Information Management and its Contributions to Distance Learning Modality

LASTRES, Helena MM Information and knowledge in the new world order. Available at <http://www.scielo.br/pdf/ci/v28n1/28n1a09.pdf>. Accessed on: June 8, 2011.

McGEE, James; PRUSAR, Laurence. Strategic Information Management: increase the competitiveness and efficiency of your company using information as a strategic tool. Rio de Janeiro: Ed. Campus, 1994. 3rd ed.

NEVES, Ricardo Siqueira; FREIRE, Isa Maria. Information management in virtual environments: an exploratory research. Available at <www.brapci.ufpr.br/documento.php?dd0=0000009226&dd1=aef07>. Accessed on May 18, 2011.

PAULA, Keilla C. de .; FERNEDA, Edilson .; CAMPOS FILHO, Mauricio P. de. Elements **for the implementation of distance courses**. Colabor @ - CVARicesu.Vol.2 digital magazine. nº7, May 2004.

SANTOS, MaribelYasmina; RAMOS, Isabel. Business Intellegence: information technology in knowledge management. FCA: Rio de Janeiro, 2009. 2nd ed.

SILVA, Armando Malheiro da; RIBEIRO, Fernanda. From documentary "sciences" to information science. Porto: Afrontamento, 2002.

SILVEIRA, Henrique. Information management in virtual organizations: a new issue for interorganizational coordination in the public sector. Available at <www.scielo.br/pdf/ci/v34n2/28557.pdf>. Accessed on May 17, 2011.

SIMON, Imre. The Digital Revolution and the Knowledge Society: What is information? How does it act? Available at <http://www.ime.usp.br/~is/ddt/ mac333 / classes / tema-11-24mai99.html>. Accessed on July 4th, 2011.

SOBRINHO, Álvaro Caetano Pimentel. From documentation to the Informational Revolution. Available at <http://189.50.200.208/seer/index.php/localdatacenter/ article / viewArticle / 24> .Accessed on July 4th, 2011.

SOUZA, Vera Lúcia Pereira de. History of Distance Education in Brazil. Available at <http://deficinciaintelectual.blogspot.com/2010/11/historico-da-ead-no-brasil.html>. Accessed on July 11, 2011.