Information management as a strategic resource in Águeda School of Technology and Management

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At the end of the industrial capitalist era, a "post-industrial" period, a new society of "services" or "free time" arises, in which information acquires a central value. In this society, the production of information supersedes the production of goods, becoming the leading consumer good and, increasingly important, assuming the role of promoter of the new economy, in which whoever dominates information dominates the world.

It is in this context that the expression *Information Society*[1] emerges, an operative term primarily used by sociologists to describe the socio-economic impacts of new information and communication technologies, highlighting the importance that information holds for the successful development of organizations. Indeed, the success of organizations is related with the efficiency and effectiveness of the use of information in their daily lives and with their ability to store and retrieve it.

1 The concept of Information Society first appeared in the work of Alain Touraine (1969) and Daniel Bell (1973) on the influences of technological advances in power relations, but only put forward in the White Paper on "Growth, Competitiveness, Employment: the challenges and ways forward into the century XXI". This document, published in December 1993 in its original version, devotes a section to Information Society. Here it is argued that Europe has the necessary know-how and experience for the implementation of a common information space.

Information is only useful, if properly organized for quick localization and use. This is fundamental in a good management because this new society demands quick responses and reasoned decision-making. Thus, this article follows a study of information management at the Águeda School of Technology and Management (ESTGA) and aims at proposing a model of information management to support the responses to the challenges of the Information Society.

We refute the traditionalist and passive vision of information services – ensuring that information is available whenever a user requests it, and defend the vision of renowned authors in the information management field, such as Choo (2002), Davenport (1998), Drucker (1995), McGee and Prusak (1993), who see information as key resource and its management as strategic tool. We advocate an information management based on the definition of criteria for production, organization, storage, selection, dissemination and use of information that will allow the organization to be more competitive in meeting its goals and mission. For this purpose we adopt the Integral System of Active and Permanent Information model proposed by Pinto and Silva (2005).

Information management: a literature review

Because information is the promoter of this new economy, it is something that no organization should overlook. But what are we talking about, when we use the term Information management? This comprises a diverse set of activities: production, processing, recording and custody, communication and use of information, assuming that we deal with, manage and find practical solutions. Choo (2002: 24-5) defines information management as

> "a continuous cycle of six closely related activities: identification of information needs; information acquisition; organization and storage of information; development of information products and services; information distribution; and information use. (...) The conceptualization of information management as a cycle of interrelated information activities to be planned for, designed, and coordinated provides a process-based perspective that complements the more conventional views of information management as information technology management

> or information management resource information. (...) The process model of information management should encompass the entire value chain (...)" .

We can conclude, from the analysis of the definition, that the author does not see Information management as a scientific discipline, since we have a set of sequential activities related to the production/acquisition, processing, recording and custody, communication and use of information.

The same is true when analysing the definition of Zorrinho (1997: 21-2)

> "function that connects and combines the design of information systems with the dynamic design of the organization. It is therefore a function at a strategic level, which must be performed at the highest level of organization's structure (vice president or the president's direct assistance or general director). Its tasks are multiple and differentiated, being the information manager, first of all, a strategic controller". (...) In addition to the personal skills of leadership and communication, the information manager must have a solid background in management, good training in planning, design and information systems management and some knowledge of computer technology and its evolution".

Davenport (1998), in turn, states that information management is a process, i.e. a structured set of activities that include how companies get, distribute, and use information and knowledge. As a process, it is required through the various sectors of the organization. However, the main focus of the process should be on the needs and satisfaction of customer information, which makes informational management really effective.

This perspective points out that Information management involves exchanges, relations between the various sectors, which in practical terms means engaging the entire organization. Following this reasoning, McGee and Prusak (1993) propose a procedural model of information management (figure 1) and reaffirm the belief that it plays a key role in shaping organizational strategy, once it might allow opportunities and alternative strategies to become more competitive.

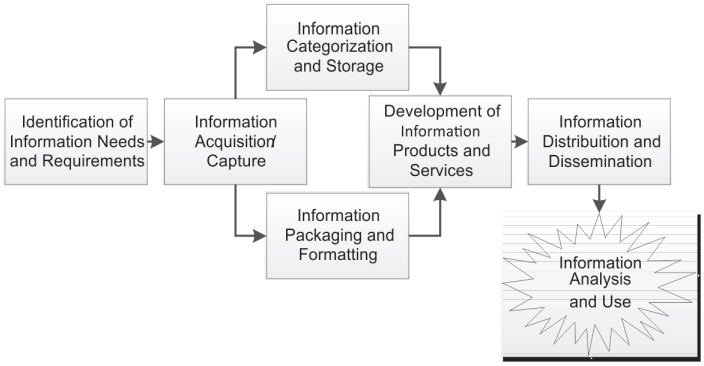

Figure 1 – Information management Process Tasks (Mcgee and Prusak, 1993: 106).

This model only reaffirms the perception of many authors, namely that information management is a process that begins with the identification of information needs, following a certain procedure that will allow its analysis and its use. This procedural model implies the development of a set of activities: collecting information; classification, storage; treatment and presentation of information (from which information products and services will be developed and their dissemination and distribution can be ensured), that after realized should give an effective response to the needs of those who are looking for it in their dual role: users and beneficiaries of such information.

The same authors (Mcgee and Prusak, 1993) state that the creation of an Information System[2] is relatively easy when based on pre-determined needs, but that the difficulty tends to increase exponentially when it tries to go beyond this analysis and to anticipate these needs. It is here that new information professionals should affirm and make a difference since they can achieve strategic value.

Pinto and Silva (2005) go one step further than Mcgee and Prusak in their proposed model for the study of information management and present the Active and Permanent Information System Model. This model will serve as reference for

2 An Information System is "A totality formed by the dynamic interaction of parts, i.e., an enduring structure with a flow states in time. Thus, an information system consists of different types of recorded information externally to the subject or not, no matter what the support (material or technological), according to a structure (producing agency/recipient) prolonged the action on the timeline" (Silva, 2006: 162).

the present case, which was also the model followed in other cases, namely: by the Municipal Active Information System Indaiatuba – SIMAI (Masson, 2005) and the Municipal Information System of Vila do Conde (Pinto, 2003).

The Active and Permanent Information System Model is an information management model (figure 2) that embraces and calls for the involvement of the entire organization. It requires knowledge of the context, relationships of the structure and information flows that are established between the agents. It is based on the assumption that "systemic, holistic and complex, finding their ontological and epistemological foundation in Information Science" (Pinto, 2003: 1), which allows to study the entire information process from its origin, through its course, to its final destination.

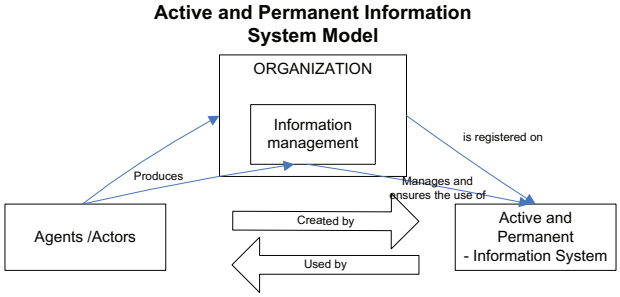

Figure 2 – Active and Permanent Information System Model (Pinto and Silva, 2005: 8).

The Active and Permanent Information System Model, which has its founding in a Quadripolar method matrix, consists of four modules. The first module contains the entire scientific research that focuses on the organization as study object, on the "phenomenon and info-communicational process occurred inside", the environment in which it moves and on the inherent Information Science problems with the objective of understanding and explaining the circumstances or problems to be addressed (Pinto, 2003: 1).

In this module hypotheses/theories (theoretical pole of the Quadripolar method) are formulated, to adopt and use techniques and obtain information for research/scientific study (technical operations of the technical pole), aiming at understanding and explaining the organizational case or the issue/problem/situation under study (Pinto, 2003: 1).

The adjustment of the theoretical and practical suitability of the theoretical research to the specific case of the implementation of the Model occurs in Module II. According to Silva and Pinto (2005), a "pivotal schemata" should be prepared and developed, bringing together, on the one hand, the results obtained according to the methodological assumptions inscribed in the first module and, on the other hand, empirical evidence needed to intervene in an organization. Usually organizations need to:

- decentralize their activities (just jobs) through its increasing computerization;
- increase security and control of access to the information system;
- ensure greater control of the authenticity, integrity and reliability of transactions and of the Information System;
- ensure the use of information in the medium and long term;
- deliver services in a consistent and equitable manner;
- document policies, decisions and results for all parties involved;
- protect the rights and interests of the organization, its employees and customers, etc.;
- prevent emergency or disaster and preserve corporate memory (Pinto; Silva, 2005: 10-1).

These issues have, mandatorily, to be addressed. Therefore, the intervention in the information management should be preceded and defined by a detailed plan, focused on how the information should be produced/received, reproduced and disseminated/accessed. After the development of this plan, the transposition is done to the case, in phases (Pinto; Silva, 2005: 14).

In the first phase, and as a result from modules I and II, an organic-functional framework is obtained that reflects the structure and activities of the organization over time. Then, it is necessary to know all the information produced, regardless of the material and age (Pinto; Silva, 2005: 11-2).

The implementation of the Active and Permanent Information System Model is the step which falls on the third module (regardless of whether it is a global or partial intervention in one or more critical sectors in the functioning of the organization).

Its implementation should be made by sectors, favouring those previously identified (prioritized in this restructuring), which determine the sequence of this implementation to other sectors. To accomplish this task, it is essential to set up an

interdisciplinary team that ensures not only the evaluation of information flow but also the tools for information retrieval (Pinto; Silva 2005: 12).

Finally, we have module IV, in which scientific research takes place over the implemented model, as well as its monitoring. Basically, the evaluation grounded on this model should be looked at as an ongoing process, because it is a dynamic reality.

By adopting Active and Permanent Information System Model, our main objective was to design the guidelines for the reformulation of ESTGA's Information System, aiming to reach a more efficient and effective operation to support the overall policy of the organization.

Characterization of the case

Bearing in mind all theoretical and institutional background related to Information Science (epistemological pole) and, in terms of methodology, from the point of view of inductive rationality, and taking as reference a theoretical framework based on the new post-custodial dynamic informational and scientific paradigm (theoretical pole) and on a Quadripolar methodology, we conducted our case study (technical pole) starting to adopt the Active and Permanent Information System Model first three modules.

Module I covers scientific research (theoretical and technical) about an organization, the phenomenon and the info-communication process occurring inside and/or its interaction with the outside environment. In Module II, we adjusted theoretical research (gained during training) to the specific challenge/case selected to implement the model (Pinto; Silva, 2005: 16-7).

The third module is the implantation of the Active and Permanent Information System Model at ESTGA, having selected the Administrative Secretariat, as "pilot sector", because it centralizes a significant part of the organization's activities and was considered as a priority sector. This module consists of four phases: the first results in the organic and functional analysis (since 1994), which allows the knowledge and understanding of the objectives, skills and functions of the different departments (through the collection and analysis of legislation and regulations; the information produced and interviews with employees); the second phase requires that all information must be considered, regardless the materials and age, i.e. so that we can think of the technological solutions with

the necessary coordination within the entire Active and Permanent Information System Model, it is imperative to gather the information produced, received and sent, as well as the definition of a set of tasks aiming at rigorous parameterization of requirements and functions required for integrated informatisation in the Model; the third phase involves a sectorial implementation, i.e., starting by selecting the "pilot sector" and that strategy will determine the sequence to be applied to other sectors; phase four involves the establishment of an interdisciplinary group with a view to monitoring the sectorial implementation of the model and the evaluation of information flow and tools for information retrieval (Pinto; Silva 2005: 12).

Some of the steps taken in the practical implementation in the case study, inscribed in module III, we can refer:

- surveying the information produced and crossing it with the organic-functional frameworks, hence resulting in the quantification and classification of informational production and respective materials;
- analysing the existing information technology system *(*hardware and software*);*
- surveying, analysing and representing organizational processes, defining circuits, agents and informational production (this phase is crucial for the knowledge and description of the organization in its multiple facets. Indeed, it is the basis for the analysis and design of new processes, allowing to identify the aspects that should be redefined and also functioning as an excellent means of organizational knowledge);
- structuring of information management service/Archive service;
- controlling the whole informational production (in several materials), following the information entire life cycle of, standardization of document models used and converting them (the few that do not exist) in electronic format and creating meta-information (which must meet strictly defined criteria and principles);
- developing a classification to use as information is produced;
- evaluating information in accordance with the criteria and parameters of the theoretical model designed by Silva & Ribeiro (2004);
- adopting electronic management of documents and workflow tools with a view to streamlining tasks and effective internal and external informational communication;

- adopting an integrated information management, taking into account the organization specificities, supported in the implementation of information and communication technology. This solution should allow to have among other things: fast access to documents (with research on metadata and free text); control the workflow; greater security when accessing documents; increased productivity and reduced costs (time, paper copies)[3];
- monitoring services to producers and involvement in organizational change processes (beyond the issues associated with the adoption of new methods and forms of work, must include actions to raise awareness among employees, alerting them to the implications arising from working daily with official documentation);
- identifying strategies, tools and solutions to implement in the selected priority sector: the Administrative Secretariat.

These steps have as ultimate goal the redefinition of ESTGA's Information System of that, as part of this broader system (the organization itself), should be in tune with the whole (organization) and the management model adopted by and for all this. Parties converge on the whole, from a systemic perspective: all subsystems that are part of the organization are in unison and the Information System is no exception.

Each organization is unique, has its own culture which gives it an exclusive character and its own management model of the information system. The model is inseparable from that organization in concrete because it is the measure of its uniqueness and particularity, perceptible through knowledge of its context, structure and processes. By knowing these factors, we have an instrument to describe and understand the current reality (which promotes its actual performance) and, simultaneously, we are designing a tool to act and converge to achieve the desired results.

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3 Among the features that the program should display, some are: integrated document management; research on metadata or free text; document classification; document versions; action automating on document conversion to another format; sending *email notifications;* automatic counters; ability to define custom actions; requisition and return of documents; adding documents to processes and processes to processes; configuration rules and workflow; defining templates with structure and rules; integration of different database systems and integration with the authentication information engines. It is also important to maintain joint and integrated management of all information, regardless of its age and the time it was produced, associating it with the historical process in which it is inserted.

When designing a functioning model of an organization based on the analysis of processes, we are making a representation of the organization, i.e. "taking a picture" of that reality. In the philosophy underlying this analysis, it is assumed that if we want to achieve other goals, we have to create a new reality, refine the model, modify and transform one or more processes of that model. It is essential to know the current processes to determine the critical points and the improvements to be included for the development of future model.

The desired results will be obtained detecting the critical points of the current model and identifying the changes that should be introduced. Often, to be able to generate the desired results, it is not necessary to modify every circuit, but just to improve some, or, occasionally, to create new circuits or, ultimately, to design a new organizational model.

To understand and interpret the organizational model, it is important to know the connection between the informational circuits and the activities, the formal structure with informal systems of internal relations, desires and expectations of the (internal and external) actors involved and its connection with organizational and management variables.

Once organizations know and understand their current organizational model, they will be able to recreate or redefine new policies and strategic directions to develop new methodologies, as well as labour and management tools. The knowledge of the current model can also lead to restructure the organization itself and the re-think the goals to achieve.

A model of efficient management is, therefore, paramount, because we live in times when competition is fierce and, to survive, it is necessary to demonstrate quality and competence in all that you do – in this scenario, excellence is crucial. The days, when customers were girt to what the market offered them, are gone. Presently, customers have their opinions, ideas, needs, expectations and well-defined tastes. Organizations should know the wishes of customers and offer them products/services that even they would not expect, anticipating and creating new needs.

Customers or potential customers have a comprehensive range of options to meet their needs and if the organization fails to meet their expectations, they will certainly look for solutions in competing organizations, best suited to their requirements and needs. Thus, each organization must seek new management ways to ensure that customers seek for their quality and excellence; otherwise it will be constantly falling behind its competitors and will disappear, because

they cannot captivate new customers, they are not able to fulfil the objectives for which it was created.

It is vital, to any organization, to monitor the external environment, once, on the one hand, the internal environment can be controlled by the organization managers (as this results from action strategies defined by them), and, on the other hand, the external environment is not under the organization's control. This should not rep Active and Permanent Information System Model resent alienation of the organization from the outside, on the contrary, it must be able to have an in-depth knowledge of reality and monitor it frequently, in order to take advantage of the opportunities and avoid threats. Indeed, although it is not always possible to avoid the threats, it is possible, with proper planning, to minimize their effects.

Context

Águeda School of Technology and Management (ESTGA) is located in the city of Águeda. This is the largest city in the Bairrada region and lies 50 km from Coimbra, 20 km from Aveiro and 75 km from Porto. Águeda is the third most populous municipality in the Baixo Vouga (with 12,5%), surpassed only by Aveiro (18,8% of the total population of the Baixo Vouga) and Ovar (with 14,1%), with a younger population than the rest of the continent.

It is a highly industrialized municipality and in need of skilled labour. Therefore, since 1983, people began to discuss the possibility of a polytechnic school in Águeda. However, because of several factors, it appeared only in the end of 1994, i.e. on 19 December 1994 with the publication of Decree-Law no. 304/94[4].

After many vicissitudes, the activities of ESTGA started in October 1997, after the Decree-Law n. 180/97, 24 July. It was separated from the Polytechnic Institute of Aveiro and has committed its integration in the University of Aveiro, safeguarding the respect for nature and goals of polytechnic higher education.

Thus, ESTGA was the first Higher School[5] to be integrated in the University of Aveiro, in compliance with the provisions of Article 2, paragraph 1 of Law no. 54/90

4 Decree-Law n. 304/94 also established the Polytechnic Institute of Aveiro, in which ESTGA was integrated.

5 Besides ESTGA, other UA Polytechnic Schools are: ESAN (School of Design, Management and Production Technology Aveiro Norte), ESSUA (School of Health of the University of Aveiro) and

(status and autonomy of Polytechnic establishments) "(…) high schools are cultural and technical centers, which prepare highly qualified professionals for their activities and promote regional development"[6].

This was, undoubtedly, one of the objectives that underpinned the creation of ESTGA. Indeed, its creation was intended to contribute in particular to the integrated development of the region of Aveiro and the revitalization of existing industry.

ESTGA's main objective was to offer training based on new techniques, particularly in multi-purpose technologies, especially in the industrial areas with significant district and regional implementation, and in particularly fragile areas at the national level. These guidelines allowed tracing the implementation of the various courses to be ministered. Thus, in the academic year 1997/98, ESTGA began its teaching activity with the BA courses in Electromechanical Engineering and Geographic Engineering. In 2000/01, four more courses were ordered: Electrical Engineering, High Studies in Commerce, Public Administration and Local Government, Office Administration, and, in 2002/03, Documentation and Archivistics[7].

Structure

To comply with its objectives and its mission, ESTGA needs to "structure" itself and adapt to changes. The structure of an organization is closely related to the context in which it works, since its modification can be explained by factors or variables of the context.

ISCA-UA (Institute of Accounting and Administration of the University of Aveiro).

6 Law No. 54/90. *DR I Series.* 205 (1990-09-05) 35-80-3589.

7 Since its establishment, and until the academic year 2006/07, ESTGA offered seven undergraduate degrees. With the implementation of the Bologna Process, the school they were six, namely: Documentation and Archivistics, which results from the adaptation of bachelor with the same name; Secretariat, which results in the degree course of Office Administration Studies; Information Technology (with Branches of Enterprise Information Systems, Information Technologies and Geographic Information and Communication Technologies), Public Administration and Local Government, which results from the adaptation of bachelor with the same name; Retail Management, resulting from the adaptation of bachelor de High Studies of Commerce; Electrotechnical Engineering (with Branches of Mechatronics and Electrical Installations), resulting from the fusion of the courses of Bachelor of Electrical Engineering and Electromechanical Engineering and, in academic year 2010/11, a degree in Quality Management.

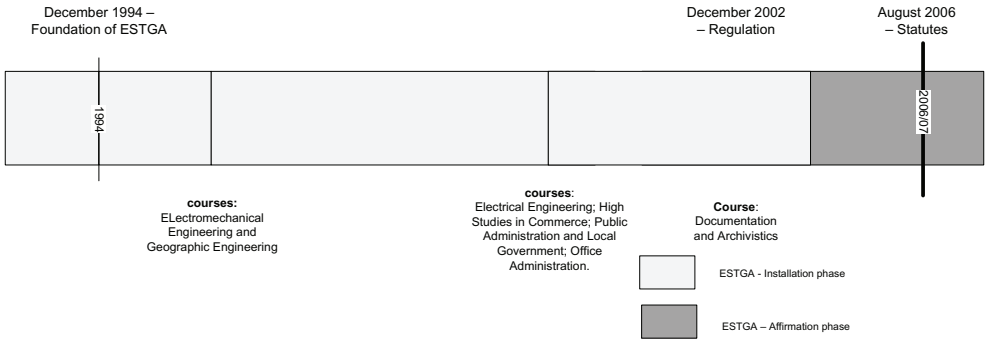

Figure 3 – Timeline of ESTGA's organic-functional phases.

The structure is a complex set of variables as to which administrators and managers make choices and decisions. It defines how tasks should be designed, specifies who depends on whom and establishes formal coordination and control mechanisms (Bilhim, 2005; 246).

After analysing the sources to know the structure and evolution of ESTGA, we have noted that, since its creation and until the 2006/07 academic year, in structural terms, it had two different phases (figure 3). The first phase, which we call "Installation phase", extended from its foundation[8] until the end of 2005/06 academic year of, with the approval of its statutes in 26 September 2006, followed by the second phase, after the approval and subsequent publication in the *Diário da República*, which is ongoing, called the "Affirmation phase".

ESTGA is part of the University of Aveiro's (UA) macrosystem, with equivalent status to a department. According to its statutes, the University is structurally organized in Departments/Autonomous Section[9], and Polytechnic Schools – organizational units endowed with human and material resources in order to accomplish its functions. Departments enjoy scientific, pedagogical, administrative and financial autonomy, under the UA's statutes[10].

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8 ESTGA was formally established in December 1994, but only started its teaching activities in 1997/98 academic year.

9 There are 15 Departments and 2 Autonomous Section at UA, that are interrelated according to the interdisciplinary courses that integrate or research areas that share.

10 Article 28 of the Implementing Order No. 52/89.*I DR Series.* 140 (21-06-1989). P. 2403-10.

The change of ESTGA's structure meets legal requirements (the statutory period set for the installation scheme was extended by successive orders of the Rector of UA) and the consequent growth and complexity of the school itself. The change in ESTGA's structure is evident when comparing certain elements introduction of new and elimination of other from the first to the second phase and the changes in the functions/competences of certain departments that are kept in both phases.

Organizational processes

Every organic-functional area develops activities to accomplish the organization's objectives. We always have to remember that although each organic-functional area has characteristic and specific processes and activities, it should also be taken into consideration that the process is cross-sectional and transversal, i.e. it can "go through" the organization's functional structure, linking different sectors, and resorting to activities of the different sectors, assuming countless interactions.

The knowledge as to processes and activities is fundamental for this study because, to have effective information management, it is essential

> (…) a) "determining what records should be created in each business process, and what information needs to be included in the records; b) deciding in what form and structure records should be created and captured, and the technologies to be use; c) determining what metadata should be created with the record and through records processes and how that metadata will be persistently linked and managed,; d) determining requirements for retrieving, using and transmitting records between business processes and other users and how long they need to be kept to satisfy those requirements (…) (ISO 15489-1: 2004: 6).

A process can be regulated and defined by a procedure that consists of either a specific way to describe an activity or process, or the document itself formally describing the tasks to achieve the final goals of a particular process. With the quality standards the term "documented procedures" is reinforced, once it implies procedures of the organization's key processes should be registered and formalized, so that they are known by everyone.

When decision-makers, have information as to the external environment and internal organizational characteristics, they are holding the basis for an organization's

management and strategic planning. These are the grounds for the importance of knowing the informational circuits of the organization's activities which produce information. Thus, so that the interpretation and analysis are simpler, we proceeded to its graphical representation, through the use of flowcharts, indicating the participants and the documents produced. This technique of organizational process modelling for the organization's knowledge and description is critical, in particular, for the analysis and design of new processes because it helps to identify aspects that have to be redefined, and also works as an excellent means of discussion, control and distribution of organizational knowledge.

These processes result in a series of logically interrelated activities, which, when executed, produce expected results, and aim to meet the needs and expectations of customers. Knowing these circuits allows us to understand the information generated within ESTGA's activities in order to achieve its objectives and fulfil its mission.

Our initial focus was on activities more directly related to the Administrative Secretariat because it was, according to the guidelines of the Active and Permanent Information System Model, the "pilot sector" chosen and it was the epicentre of ESTGA's operations. Starting from the analysis of the functions of the Administrative Secretariat, we studied and represented its tasks and how they are developed, aiming at evaluating how they work. By detection of some anomalies, some changes that streamline information management and how the organization works have been introduced, so that its goals more easily achieved.

To efficiently and effectively promote information management requires thorough analysis, transversal to the entire organization, in order to implement a management system for the documentation/information, disciplining, in an integrated and continuous way, the entire process of production/reception, management and conservation/deletion of information produced/collected, irrespective of the materials.

Conclusions

The importance of information requires organizations to look at its management as an investment in their success, because it is a tactical resource and its management a strategic tool. The context in which ESTGA operates requires flexibility and modernization of its organizational structure, unconditional commitment to information management and the improvement of its information system. This must

be assumed as a strategic approach that helps to promote and expand the horizons in terms of opportunities, once it will allow the detection of and defence from threats coming from the external environment. This way, it can achieve a new balance in its functioning and present itself as a modern and competitive organization.

In conclusion, we highlight some main ideas arising from the study, in order to discipline the documental and information management:

- re-establishing some circuits, particularly those regarding sent and received correspondence, with particular emphasis on the control of outgoing and incoming (or all correspondence received, for example, is registered).This, because it is the majority of the documents produced/collected in ESTGA's activities;
- eradicating the information division according to the technology and media used, and, instead it should receive the same treatment (information is organized according to the technology used, for example: email, fax, etc.);
- numbering the official correspondence dispatched (including emails);
- adopting a workflow system to rationalise tasks, as it enables the automation of processes, according to a defined set of rules, allowing them to be transmitted from one post to another according to certain rules (quick distribution and guidelines exchange are examples of the advantages of this tool);
- investing in technological platforms and electronic documents (including the standardization of document formats and their conversion (if they do not already exist) in electronic form, as well as investing in the digitization and distribution of the documentation by the target users, resorting to digital certification;
- controlling the informational production throughout the whole information lifecycle and creating meta-information;
- developing a classification that allows to discipline and sort the documentation at the time of production (development of the classification already used in correspondence and its extension to information as a whole), in communication with the UA;
- adopting an integrated information management system that helps, for example, to streamline processes that require a constant information exchange, between the School and the University, keeping in mind the

organization's specificities, supported by information and communication technology use.

Given that the information management program, Docushare, is being implemented in three "pilot departments" and the goal is to extend it to the other units in UA, this will meet the need of simplifying and streamlining information management. This is a solution that is being developed and improved, to meet the organization's specific needs.

However, this solution is not yet articulated with documental masses that have been produced and accumulated in UA's existence, as well as in its departments/ autonomous sections, or the needs inherent to the information management in the downstream the end of procedural phases. This situation should also be analysed to guarantee a solution.

For this solution to be successful, it is important that its implementation is accompanied by a set of measures, among which:

- The supervision of services that produce information and the promotion of awareness raising/training for them to understand the importance and added value that may result from the introduction of new procedures and technologies;
- The creation of a regulation that establishes the procedures for the transfer of documents from producing sectors;
- The definition of the criteria and the establishment of a matrix for the selection, evaluation and elimination, which should be developed with UA.

This should be duly supported by an interdisciplinary team with the director's support (we consider that the task force for the Information, Evaluation, Accreditation and Quality, an interdisciplinary group with training in Information Science, Computer Science, Law, Quality Management).

An organization, especially in higher education, must have certain fundamental services, such as a Library and an Archive. These entities produce/ receive and process information (active and enhancer resource) that, when properly valued, contributes to the effectiveness of the whole information system, with high levels of competitiveness in pursuit of organizational goals. Moreover, they are grounded on the organization itself and the respective Information

System. This valorisation should be underpinned by a set of transformations that should be considered, namely:

- Determining and preparing a physical space for the Archive (with the needed conditions in terms of environment/materials);
- The purchase of shelves and more appropriate installation units for conservation and storage of documentation;
- The creation of a space for the permanent installation of the library, with all the indispensable means for its functioning;
- Hiring an information manager with a degree in Information Science.

The analysis unveiled a lack of autonomy of the ESTGA towards the UA. There are specific situations in which this condition causes time loss and delays for certain procedures. Greater autonomy for ESTGA without having to be dependent on its "mother" in many aspects would mean a gain for all parties, because it decreases the circuits and number of participants.

This claim for ESTGA's greater autonomy for increases its responsibility to users and to UA and requires a clear definition of the responsibilities of various departments and the functions of several employees, so that they can be held responsible for their actions as actors in an info-communicational process.

Bearing in mind the challenges faced by organizations in the Information Society, this is an essential tool for solving some of the organization's problems, for strategy formulation and for decision-making. Therefore, it should be used to support processes and decisions and improve organizational performance. This is where we set our position as supporters of a scientific-informational paradigm that puts a practice that lasted for centuries aside, in which the information was essentially memory. But we are not happy with this vision and the times we live in reinforce this belief, because it is critical to transform information into knowledge, sustaining ESTGA's life, growth and development.

Information is the result of every human activity and the ability of man to produce and use it, in any form, made its diffusion and continuity over time possible. That is what we aim for ESTGA so that it becomes a reference institution in the Portuguese higher education system.

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