

## THE BEHAVIOR OF ACADEMIC INVESTIGATORS USING AN INSTITUTIONAL REPOSITORY

Maria Fernanda Sarmento e Souza<sup>1</sup> - [fsarmento@dsi.uminho.pt](mailto:fsarmento@dsi.uminho.pt)

Ana Alice Baptista<sup>2</sup> - [analice@dsi.uminho.pt](mailto:analice@dsi.uminho.pt)

Isabel Ramos<sup>2</sup> - [iramos@dsi.uminho.pt](mailto:iramos@dsi.uminho.pt)

1 Ph.D. Student – Department of Information Systems, Engineering School, University of Minho, Guimarães, Portugal; Supported by the Brazilian government – CAPES – Brazil; São Paulo State University (UNESP), São Paulo State, Brazil.

2 Ph.D. Professors - Department of Information Systems, Engineering School, University of Minho, Guimarães, Portugal.

Institutional repositories (IRs) are a new strategy for universities to expedite changes in scientific communication. They are digital collections that store, preserve, and make available the intellectual output of one or more universities<sup>1</sup>. Housing this production in an IR can solve problems such as the high acquisition and maintenance costs of collections, and the publication of gray literature, reports and post-prints. However, the IR brings new questions about copyright that are still in discussion. It can also improve the situation of the universities that are responsible for producing 70% of the scientific papers, buying from commercial editors about 90% of the articles they consume, compromising part of the budget in the acquisition of periodicals that bring back the results of their own work<sup>3</sup>.

The use of open archives by IRs should stimulate self-archiving, since it assures a more efficient dissemination of digital documents. However, self-archiving is a new task, sometimes perceived as an additional burden in overcrowded schedules, not yet part of the habits and routines of researchers and academic staff<sup>4</sup>.

Thus, the main problem that directs this work refers to:

1. How do researchers react to this technology? What is involved in this reaction? What motivates it?
2. How does the reaction change happen (and how this change is expressed) across disciplines? And across cultures?
3. What are the important factors that help this technology to be better accepted? What can motivate researchers to use it? What management initiatives should be implemented to foster a better communication and sharing of research results through the intensive use of an IR?

Thus, we have 3 objectives that will be reached by means of an interpretative approach, which will enable the analysis of the researchers' interpretations as for the use of IRs, allowing the knowledge of important socio-cultural aspects.

1. To describe, analyze, and understand the behavior of investigators as producers and consumers of scientific information from different knowledge areas and cultures in relation to accepting and using an Institutional repository. Qualitative techniques of collection and analysis of research data will be used to understand the meanings attached to the practices observed, according to the specific historical and socio-cultural factors that have been shaping those meanings. Literature review, participative observation and semi-structured interview will be used to investigate the behavior of scientists regarding their acceptance of information technology in different contexts. Content and context analyses will be applied to collected data according to the parameters defined in the study as a way to develop a consistent interpretation of the observed behavior.

2. To determine its acceptance by these researchers as producers and consumers of scientific information. This will be investigated by qualitative techniques. A questionnaire will measure the variables included in the Technology Acceptance Model<sup>2</sup>, which allows determining the intention of using the system.
3. To identify the success factors in implementing an IR, and to define a list of better strategies to be adopted in order to conduct the change, motivate the sharing of information, reduce costs, and assure the dissemination of the scientific information stored. Based on previous results, strategies and changes to be adopted by academic institutions will be proposed to successfully implement the system.

The comparative case study method will be used, evolving the researchers from the University of Minho and from a non-Portuguese university.

This work is justified in a socio-cultural context, especially in understanding the behavior of investigators from different knowledge areas and cultures in their acceptance and use of IRs, being possible to know important factors in its adoption.

This way, we intend to provide the academic managers guidelines that help them to promote a culture of sharing and disseminating the scientific information produced by their institutions, increasing the investigation's excellence.

1. CROW, R. The case for institutional repositories: A SPARC position paper. SPARC: Washington. 2002. Disponível em <http://www.orl.org/sparc/IR/ir.html>. Acesso em: 15 set. 2003.
2. DAVIS, F.D; BAGOZZI, R.P., WARSHAW, P.R. User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, v.35, n.8, p.982-1003, 1989.
3. OKERSON, A. Back to academia? The case for American Universities to publish their own research. *Logos*, v.2, n.2, p.106-112, 1991.
4. RODRIGUES, E.; BAPTISTA, A.A.; RAMOS, I.; SARMENTO E SOUZA, M.F. RepositóriUM - implementing DSpace in Portuguese: Lessons for the Future and Research Pathways. In: INTERNATIONAL CONFERENCE ON ELECTRONIC PUBLISHING, 8., 2004, Brasília, Brasil. Proceedings... Brasília: Universidade de Brasília, 2004. p.314-322.