Study about Open Journal System adaptation to manage a Scientific Initiation Program

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Abstract: A Scientific Initiation Program (SIP) plays an important role creating an initial impetus for knowledge acquisition. However, in modern large educational institutions, the management of information associated with a SIP could become a quite challenging problem. There are a huge number of specific constraints interrelated with scheduling tasks, publishing rules and norms conformance. To keep track of all the workflow and to guarantee satisfaction of these constraints it is necessary, almost compulsory, to adopt a computer-aided system. On the other hand, there is an open source, well-designed and fully functional software for managing the entire electronic publishing cycle. This system is called Open Journal Systems (OJS) and is maintained by the Public Knowledge Project (PKP). The objective of the paper is to present a successful experience with the adaptation of OJS to be used as an information system to a SIP. A ten-year and well-organized SIP is presented as a start point for the experiment. The integration model of SIP procedures and OJS resources are detailed presented with emphasis on practical application for other decision-makers reproduce these results. The benefits of this approach are very realistic in terms of information management, program scale and affordable costs.

Keywords: Innovation, Management, Experimental, Higher Education.

1. Introduction

Many institutions of postsecondary education (IES)\(^1\) promote a scientific initiation program (PIC) which is a student scholarship program dedicated to developing their scientific skills, with high formative effect (Demo, 2003). Besides, this kind of program existence at an IES is evaluated by a Brazilian agency (SINAES) that controls the postsecondary education in all over the country (SINAES, 2008).

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\(^1\) Instituição de Ensino Superior. All abbreviations were presented in Portuguese.
The goal of this work isn’t to discuss the evident importance or relevance of a PIC program, but to present how to use a computational tool developed to publishing scholarly journals online for make easier the PIC management tasks.

The Federal University of Bahia State had developed a computer system to PIC manager (UFBA, 2004) which control the research projects submission, permit the projects review process and the manager follows the process. However, the IES, especially not Federal ones, don’t have available resources to develop systems like that.

The Open Journal System (OJS) is an open source solution to managing and publishing scholarly journals online and more than 1600 institutions around the world are using this system (PKP, 2008). In Brazil the OJS was customized by Brazilian Institute of Information in Science and Technology (IBICT) producing a Brazilian version.

Thus, having an innovating attitude and joining the authors’ knowledge about managing OJS and PIC, this work depicts how to use this system for PIC’s management.

This study’s theme is about informatics, programming and problem solving with the perspective in technology and infrastructure. With the intention to divulge the realized study of Open Journal System adaptation to manage a Scientific Initiation Program this article shows, beyond this introduction, an example of Scientific Initiation Program management, how OJS works, a way to integrate OJS to manage PIC and the final considerations.

2. A Scientific Initiation Program

Usually the PIC sponsored by Brazilians IES has operational process quite similar to each other and may be summarized in the following stages: registration announcement, selection and reviewing of research projects proposals with correct registration, publishing the announcement of approved projects, and the research starting communication (Lima, 2007, Oliveira, 2001).

This fact makes this study highly applicable to others IES that needs a computer system to PIC manager.

3. Open Journal Systems

The Open Journal Systems is a journal management and publishing software originally developed as part of the research program of the Public Knowledge Project (PKP, 2008). Based on open software and web information systems, the PKP has a series of projects that are the state-of-the-art in electronic publishing and systems for open access of scientific content. This research effort has the goal of design and creation of knowledge management systems that would increase the
contribution that educational research made to the lives and work of teachers, administrators, policymakers, and the public (Willinsky, 2005). This project has its origins in the mid-1990s and notable institutions cooperate together to the development and management of PKP, forming a partnership among the Faculty of Education at the University of British Columbia, the Simon Fraser University Library, the School of Education at Stanford University and the Canadian Centre for Studies in Publishing at Simon Fraser University.

In Brazil, the Brazilian Institute of Information in Science and Technology (IBICT) is a government national research centre concerned with its mission of improvement and advance of science, technology and innovation initiatives (IBICT, 2009). Since 2003 IBICT is a strategic partner of PKP and has an important role providing software translation to Portuguese, training managers and decision-makers for open electronic publishing and other OJS customization regarded to Brazilian publishing norms.

In January 2009, IBICT has recorded 598 Brazilian electronic journals based on their customized version of OJS (IBICT, 2009).

4. Final Considerations

The present study about how to use OJS to manager a PIC shows that is a feasible solution. This conclusion was possible due to draw a parallel between PIC regular management operation steps and the same operations migrated to a computer-aided system as OJS.

The Anhanguera’s Scientific Initiation System (SAIC) is based on OJS with simple customizations. The changes involved modify terminologies and author’s registering data, that are very important to the PIC manager overall control, as if the student receives scholarship or is volunteer, which campus he/she come from, the graduation course, the advisor degree and others similar information. Another important customization was permitting identify from which kind the supplementary document is, because there are research project that need to be send to a ethics committee in research (CEP) or to ethics committee in research with animals (CEUA), whose related documentation have to accompany the project proposal.

The SAIC will get fully functional in February 2009 and all the PIC stages are going to be completed executed through the system. This is other important OJS feature, because allows beginning the system use from any part of PIC process or the tasks associated with editing a journal. Others significant features: open source tool, web based system, used and tested by many institutions around the world and flexibility to be adapted to another purposes.

Finally, was observed the possibility to use OJS to managing others IES institutional programs. Such study will be developed further.
References


