Open Source Software for Accomplishing a Human Resource Management Portal

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Abstract: The paper presents a solution for integrating many aspects of human resource management, with extensible customization possibility (language, interface), to meet specific needs of various organizations, both regarding the organization as a whole, but also in terms of different categories of users that can use the platform. It also provides an overview and perspective on using Open Source Software in human resource management.

Key Words: Open Source Software, Human Resource Management, Paired Comparison, Moodle, OpenOffice.org

1 Introduction
Despite a lot of myths and misconceptions about open source software which still persist, an increasing number of businesses and public administrations all across Europe are using this software as alternative to commercial and proprietary applications. However, Europe offered from the beginning of this millennium already enough lessons in this regard, initiatives and dissemination of experiences and resources in this area [1] "Community open approach on software development will play a huge role in the future and will have an impact on proprietary software" was a declaration of Adam Jollans, manager of the strategy, open-source software at IBM [2]. There are a lot of cases that proved that the OSS alternative is worth to be considered as a new leading edge, and that using at a large-scale the OSS for creating a culture of open knowledge, poor regions could develop towards a knowledge based society. [3] In the public, as well as in the private sector, OSS demonstrated that it could be adopted for various needs, from presentation sites or portals, to complex information sharing and collaboration in dynamic pages, from public administration and educational field to business advertising, commerce and other services and it proved to be an interesting alternative emerging worldwide, in regions having different levels of development. [3]

The research for completing a portal for Human Resources Management (HRMP; in Romanian – PMRU) was performed with having as goal to offer a vision of the possibilities offered by the Open Source software. Such software is getting more and more attention not only from part of small and non-profit organizations – primary because of free licenses – but large IT corporations such as Novell, Oracle, SAP AG and even Microsoft are investing in Open Source software [4].

The described applications illustrate the usefulness in the workplace of some Open Source software (i.e. a Learning Management System and an Office suite). We offered a case of how that can be adopted and adapted to meet the different needs of organizations and of their managers.

2 The Platform
The proposed solution integrates many aspects of human resource management and is one that offers freedom of use, an extensible customization possibility (language, interface), to meet specific needs of various organizations, both regarding the organization as a whole, but also in terms of different categories of users that can use the platform.

In building this solution for improving human resource management within an organization, we started from the Moodle platform. Alongside we have used other applications having the same degree of freedom: Notepad++ (for changing in Moodle code) and OpenOffice.org suite. With their help, we think that the specific activities of human resource management can...
be automated at the same time in a good and creative way.

Although Moodle is generally used as a platform for education, especially for distance education, we thought to expand its use, so we customized it as a platform for building a more particular portal that group together activities involved in human resource management.

After the translation and adaptation of language files to the specific use that we want to give to the portal, unlike the original version, we proposed the modification of terms such as lectures, notes, with the new destination of Moodle platform (i.e. fields, results), terms that are wider and more appropriate to different activities that will be found in this website, the general human resources activities. In order to have a basis of comparison, English language pack is recommended to be stored for any possibility of returning to the original terms (list of the top-right) of the portal window (see Fig. 1), especially in the early stages of implementation. In the same idea, it is a good point to choose a group of users for all areas, from all user categories settled. As a pilot project, we tested and commented using a blog the various aspects concerning the use of portal features.

3 The Structure of HRMP

The components that we glimpsed until now as being useful in human resource management activities, regardless the organization are summarized in Fig. 2. The portal include three category of modules: the standard ones – that are part of Moodle core package; non-standard components – the components developed for Moodle, but that are not part of basic package; and some external components, as applications created with the OpenOffice.org package. The latter was added as a resource type component in Moodle.

Fig. 1 The homepage of HRMP after configuration files Romanian language

Fig. 2 The Main components used in HRMP

The portal was divided into categories and areas. Categories - the largest unit of structuring of activities is divided into primary and secondary. Main categories concern the part of workforce supplying activities, the development and the areas implied by the maintenance of workforce. Within these main categories we have created sub-domains (sub categories), grouping areas that are part of a more particular category of activities in human resources management, such as the Jobs category. Areas are a tight set of activities and related information resources, such as those related to job evaluation, job description etc. (Fig. 3)
When we established this classification we have in mind the security reasons, the logging into each area being certified, but also we wanted to not expand too much the list of areas directly accessible from the home page.

4 The Job Applicant type of User
A job applicant (one of the user type – roles – settled for HRMP) can interact with the portal in the following ways (see Fig. 4):

- View the available jobs;
- Go directly to the weblink that enable making a European CV in 8 steps;
- View a template for a Letter of intention (other templates or form can be added) when and if necessary;
- Submit the CV (is an assignment-type module of Moodle);
- Submit the Cover Letter (is an assignment-type module of Moodle).

5 The Structure of the First Category of HRMP
When logged in an employer of the company, the Categories discussed in section 3 of this paper are available. For space reasoning we will describe in this paper only the first one. As sub-section we established the following 5:

- Jobs;
- Professional guidance;
- Recruiting
- Selection
- Workers and wages.

In the jobs section we have included activities such as observations – for that techniques we propose the Journal module of Moodle, individual or group interview, job analysis using questionnaire – using the Quiz module a.s.o.). The job description are also included here and can be created as OpenDocuments, using the Writer and/or Calc from OpenOffice.org suite.

A valuable analysis can be done by an exchange of information received and left by the former employee of the job, based on a permanent dialogue between the job occupant and a specialist in the field. Such discussions may be conducted using one or more of the components presented in section 3, i.e. forum, chat or dialogue. Inadequacies of the records resulting from the dialogue will be then discussed and corrected, and the conclusions aroused will be the ground for making new proposals or performing changes and adaptations in job content analysis [4].

6 Using OpenOffice.calc for Developing a HRM Tool – Paired Comparison
Paired Comparison Analysis is a good way of weighing up the relative importance of different courses of action, when priorities are not clear, or are competing in importance. The tool provides a framework for comparing each course of action against all others, and helps to show the difference in importance between factors or to compare some list of workers in order to obtain a workers ranking. [5, 6, 7].

After selecting the elements for prioritising or comparing and arranging them in a matrix-type table, the manager will mark with 0 or 1 grade the importance of one over the other, until the whole pairs are marked. The consolidated results, obtained by adding the total marks for each person, can be then represented in column chart, or an XY chart type, for an easier view (Fig. 5).

We chooses the ODS format specific to OpenOffice.org files and have created the steps of this method using three modules for automating the action, in the spreadsheet application of OpenOffice.org suite, i.e. Calc. The menubar created includes commands for the evaluation and for generating the list of pairs (initially, the manager have to complete only the first column of the spreadsheet, or can generate this list of employers directly, using the export facilities offered by Moodle. Fig. 5 reveals the final stage, containing the list with the pairs of employees, after the marks and the centralised weight of each one in total. The last column
contains the place in hierarchy, according to previously
totals obtained.

7 Conclusion
The presented portal is based on the idea of free, open
source, starting from a recognized platform for learning
content management, namely platform Moodle. We have
integrated an example of using an application of the
OpenOffice.org suite - also open source and free.

We chose this category of software because often the
financial obstacles for software licenses hinder the
development of small and medium companies or limited
their development opportunities and their creative
expression. In the contemporary society, in which skills
in ICT use increases, making them part of “literacy” for
those who are preparing to enter on the labour market,
the use of such solutions can be like springboard to
launch and improve the information flow both for
companies and for human resources in general.

Human communication knew new dimensions by
using a portal that stores and where information and
knowledge of participants can be accessed in the life of a
company. Portal proposed in the paper allows the
integration of many types of digital content and
management opportunities offered by the chosen
platform allows a friendly site usage, by setting different
roles for those who place the content of those that use it
and view it. Modern forms of communication are found
in described modules, some representing a simplified
form of those already known (such as chat, weblogs,
wikis). Thus, it is recommended also for those less
initiated in using these means of communication.

Development opportunities are virtually unlimited.
First, the community of developers that are around both
types of applications is constantly connected and
responsive to all new, developing and proposing new
modules, whose development can be monitored,
discussed and updated continuously. On the other hand,
"transparency" that characterize them makes them it
really basically an open source, a source of knowledge
for anyone interested. Ability to adapt existing modules
to the requirements of the company is thus an open door
to other applications.

This paper provides an overview and perspective on
using Open Source Software in human resource
management. The perspectives, in terms of the proposed
application may include integration possibilities with
other open source solutions for content management,
which a company can use in other business processes
such as Mambo – for customer relationship management
and electronic commerce; improvement or integration of
external modules specialized for the techniques used in
organisation’s management.
References:


