Chapter 21

INOVA Framework: A Case Study of the Use of Web Technologies for the Integration of Consulting Techniques and Procedures

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ABSTRACT

Nowadays, the WWW is playing a vital role in the business world. Most enterprises are becoming digital. Content management systems provide an effective method to improve the development of web applications and make the maintainer’s job easier. The purpose of this work is to study the benefits that the use of web technologies can suppose for a SME company when they are applied to integrate their work techniques and procedures. The authors have also tried to use it to provide their customers with several services, and to make easier the company expansion process. The framework developed includes a security system for the access to the contents based on the RBAC model. The use of the INOVA framework has provided a benefit as much for INOVA itself, as for its customers, by including in a centralized way document resources and toolkits that can be accessed remotely.

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INTRODUCTION

Due to the great number of consulting companies in the market, a consulting company has to offer some innovative products if it wants to stand out. To do so, INOVA specialized in the Innovation, Optimization and Valorization of the projects that their customers carry out.

The growth of the Internet, the rise of telecommunication, and advances in computer technology have provided businesses with new opportunities. At the same time, it poses new communication challenges. In order to operate efficiently, a business needs a way for its employees to share information. No matter the size of the business, an effective, easy to use information sharing solution is critical to success.

This project was created with the idea of developing a framework (Figure 1) to improve and increase the services INOVA offers to the general public, to their customers, and to their own staff. To do so, we pretended to computerize several applications and utilities that the INOVA staff had developed through time, both to the general public, and to their internal use.

INOVA staff realized that some of the applications they had developed through time as internal utilities to be used by them, could be useful for their clients and for the general public. In the market did not exist any products that would give those services to the users, or at least not in the specific field they work with.

As a result, we created a web portal that would give the INOVA employees and users in general access to this application from anywhere (http://www.inovaportal.com). We have followed the standards to develop the portal, putting a special care in maintaining a clear, simple and intuitive user interface. As a result, it is accessible via different navigators, even using text navigators such as lynx.

In this paper we are describing the goals we pursued, the solution adopted to achieve them, the problems encountered during the development of the system, and the solutions adopted to deal with those problems.

The remainder of this paper is outlined as follows: In the Background section we explain which the situation in the market is and we provide some examples of some of the existing features and what is innovative about our solution. The Main section of the chapter has been divided in several parts. First, we offer a description of the project, giving also a list of web portal requirements. After that, we explain the system architecture. Another important part of the main section will be the web portal software description, where we explain the most important modules that we have developed in our system to meet our objectives. Next, we give our perspective about the problems we have encountered and the solutions we found to deal with them. At the end we explain the directions we plan to follow in future research, and a conclusion about this project.

BACKGROUND

There exist an extensive number of cases in which an enterprise or an institution has decided to improve the services they offer to the public by developing a web portal. Internet offers a way to distribute knowledge and share information. To do so, a big part of them rely on a Web Content Management System to use as a base to the development of their web portal. A web content management system provides some tools that are very useful.

They provide tools that allow manage the content in the web portal easily, without the need of extensive computer knowledge. They usually utilize templates to display the content, and allow the separation of the content from the web portal design.

In my opinion one of the most important reasons to use a WCMS is that they usually provide a granular permission system, which allows a big
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