

Open Medical Library: Cooperation and Scientific Communication Network through RSS

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Abstract

One of the fastest and most performing tools on Web 2.0 is RSS (Really Simple Syndication). It allows the access to digital content without constantly visiting the pages where it is stored. Syndication enables to share all kind of information in XML format, and offers us the opportunity of showing our own content in other web pages in an integrated way, giving an added value to the information. In this communication we would like to present a Network Collaborative Project between medical libraries belonging to different institutions, located in different geographical areas and with different purposes, objectives and interests (some of them focusing on research and teaching and other on medical practice). Our medical libraries have incorporated "the content syndication", on the one hand, as another tool for medical librarian work and, on the other hand, as a value-added service in order to be useful to different users such as medical staff, teachers, researchers or students. RSS lets us share information channels, creating a space for collaborative research. Syndication is a great help to our users as it develops a new trend in the content management sector, which is changing considerably the relationship with information, for both users and librarians' point of view.

Introduction

Our Project is a joint initiative undertaken by a group of health and medicine-related information management professionals working in different organizations: libraries and documentation centres in Higher Education institutions (Universidad de Salamanca, Universitat Autònoma de Barcelona, Documentation Centre at the Instituto de Psicología Aplicada, Lisbon) and hospital-based libraries (Hospital de Torre Vieja). Ours is a heterogeneous, geographically scattered group with different working languages (Catalan, Spanish, and Portuguese). Our institutions are based in two different countries (Spain and Portugal), and those located in the same country (namely, Spain) are considerably distant (Salamanca, Barcelona, Torre Vieja).

From time immemorial, collaborative work among professionals working in the same field has been a reality. Traditionally, interpersonal relations with the various types of professionals working in a sector have been an important part of one's work, for instance as regards sharing information, collaborating, establishing alliances, creating lobbies, etc. In recent times, the situation has not changed considerably. Interpersonal relations with colleagues are still an important part of one's job. Nevertheless, there *has* been an evident evolution in the ways these relations are established: ordinary post has been replaced by telephone conversations and, lately, by e-mail communications and the new services offered by the Internet. Undoubtedly, Internet has radically transformed the domain of personal and professional relations, to the extent that, according to experts, we are witnessing the explosion of a second generation of web development, i.e., Web 2.0 or participatory web. Some authors even talk about a third generation web. In any event, the importance of collaboration must be highlighted if libraries are to live up to their mission and goals, both in economic and strategic terms.

What are the advantages of Web 2.0 for our work? What tools and applications can be of help to keep the users well informed? These questions were at the very basis of the constitution of our group. From the start, we perceived very clearly that the different tools available in Web 2.0 could be extraordinarily useful for our libraries and documentation centre. Web 2.0 was perceived as a real help, on the grounds that it could simplify our work. Almost effortlessly, users could be informed and constantly provided with updated information and the latest news, a fact which would surely be highly appreciated by those users. Diving in the world of Web 2.0 seemed, thus, worth the effort.

Among the multiple tools in Web 2.0, we selected RSS (Really Simple Syndication). Rather than providing a lengthy explanation about the nature and characteristics of RSS, we will concentrate on the reasons why RSS seemed adequate to our needs. In the first place, it is an easy-to-use and useful tool from the point of view of the users, who can "subscribe" to digital contents of their interest without having to return to different webpages repeatedly in their search for new information. Second, it also grants the opportunity to share information channels and make information resources known in an integrated

way. Furthermore, it facilitates the creation of virtual spaces of professional cooperation and collaborative work, and it fosters the development of new projects regarding content management, thus significantly transforming our relation to information, both in the case of librarians and users. For all these reasons, it has become a service with an added value for the students, teachers, doctors, paramedics and researchers at our institutions.

Taking into account its extraordinary potential, this tool may have considerable impact in the future development of our profession.

Background

At the date when our endeavour began, we had all heard about RSS and were familiar with the concept of content syndication. Nevertheless, its use was still scarce, even though it is one of the most useful and powerful tools available in recent times. It has to do with blogs or weblogs, but it is still widely unknown among users, and even among a wide sector of professionals working in the field. RSS is a technology by which a file including the headlines and a summary of an entry published in a blog or in a digital periodical publication can be created. The above-mentioned file is a news channel to which one can subscribe by means of an “aggregator”, either one installed in our computer or one of the many that are freely available in the Internet. The files are constantly updated: thanks to the “aggregator” we can check on the latest news that we have not read yet. This solution keeps you updated on all the latest news published on a particular subject, without having to browse the enormous flow of information in the web, by merely selecting that which may be of interest in a simple and easy manner. Information comes to us, and not the other way round.

Even though a vast majority of our webpages allows users to subscribe by means of RSS, only the Torre Vieja Hospital and the health and medicine-related libraries at the University of Salamanca had included a service providing abstracts from more than 300 specialized journals in the field of medicine using RSS technology (fig. 1). The “aggregator” used for that purpose, one available on line, was *Bloglines* (<http://www.bloglines.com>). An on-line “aggregator”, also called “feed reader”, is an application for managing information sources and linking RSS channels from a number of websites (in this case, the websites of different medical journals). The content, always updated and organized in thematic files, allows users to check the latest abstracts published in their favourite journals.

The screenshot shows a web interface for 'Bloglines' with a 'Feeds' section on the left. The main content area displays a list of journal summaries from ScienceDirect. Each summary includes the following information:

- Title:** A link to the article, such as 'Aims & Scope/Editorial Board'.
- Publication year:** 2009.
- Source:** Best Practice & Research Clinical Gastroenterology, Volume 23, Issue 2, April 2009, Page iii.
- Author:** [No author name available].
- Posted on:** Mon, May 4 2009 7:54 PM.

The third article, 'Introduction to molecular and clinical genetics of colorectal cancer syndromes', includes a detailed abstract:

The understanding of molecular genetics in the field of gastroenterology has rapidly grown over the last two decades. In recent years many genes involved in the disorders of the gastrointestinal (GI) tract such as colorectal cancer (CRC) and inflammatory bowel disease have been identified. The elucidation of the molecular genetics of these diseases made it possible to study the high-penetrance susceptibility genes for disease-causing mutations with direct implications for relatives of affected individuals. The most immediate application of these advances is the opportunity of pre-symptomatic diagnosis in relatives of affected individuals by molecular genetic testing. In this article, the most...

The fourth article, 'Hereditary gastric cancer', also includes an abstract:

Gastric cancer is a heterogeneous and highly prevalent disease, being the fourth most common cancer and the second leading cause of cancer associated death worldwide. Most cases are sporadic and familial clustering is observed in about 10% of the cases. Hereditary gastric cancer accounts for a very low percentage of cases (1-3%) and a single hereditary syndrome - Hereditary Diffuse Gastric Cancer (HDGC) - has been characterised. Among families that fulfil the clinical criteria for HDGC, about 40% carry CDH1 germline mutations, the genetic cause of the others being unknown. The management options for CDH1 asymptomatic germline carriers are intensive...

Fig. 1: Page of journals summaries of the University of Salamanca Bio-sanitary Libraries.

Content syndication is not just for the user to receive information that others offer, but is also useful for displaying other content from the website of the library. For the user to receive this information is necessary to create your own feed with news on the topic that is of interest? Content syndication is a two-way circuit in which all access and creates information in an easy and fast.

Our intention is to develop a project that we call the flexible **Open Medical Library**, adaptive and driven by the community of participants to support higher education, research and clinical practice or care, and to serve his time tool libraries working professionals. The framework of the **Open Medical Library** will provide information on new acquisitions, management and communication services and useful resources for research and teaching.

The service platform **Open Medical Library** integrate different learning contexts, able to adapt to new developments in research, teaching and practice, offering new services to students, teachers, researchers and clinicians and providing a professional work tool collaborative. It seeks to provide quality services at low cost or no cost.

The nature of the information is changing. The dissemination of information is at a crossroads, between traditional models and channels and new ways and environments that foster the exchange of information. The roles of teachers and students are also changing and are being directed towards greater participation and collaboration on new teaching and learning environments. Libraries should participate actively in this process of change, giving value to the services of transfer and communication of information. To achieve its objectives, the libraries have to be flexible, adaptable and efficient in meeting the needs of users. No matter where you are.

Description

The main goal of **Open Medical Library** is to create new library services network within the field of health sciences through the application of information technologies and the use of Web 2.0 tools in general and RSS content syndication in particular. This project arises, as already indicated, the initiative of a number of librarians, documentary, including the creation of a virtual platform which will incorporate the resources, activities, trainings, discussion forums, etc... of the various institutions with the ultimate goal of creating a new generation of library services and collaborative and participatory. The first step to achieve has been to build an appropriate framework, providing a social community that allows us to develop a virtual environment. Finding that the syndication of content could help us and bring many advantages, not only to improve the care of our users, but for us as librarians, we decided to start a project together. This project will help us in our daily tasks and in the other hand provide updated information relevant to the user. To do this we set some goals:

- Create a virtual space; common and private work, multilingual (Portuguese, Spanish, Catalan and English). This virtual space will allow us to work cooperatively by sharing our knowledge and resources to create new materials and services for users. It's where I'll share comments, posts, news professionals, links to health resources of interest, news of professional interest, links to other blogs health libraries, etc.
- Develop a virtual audience with information of interest to students, teachers, doctors, librarians, etc... and also can contain:
 - News about new tools
 - Alerts, both free and commercial electronic resources subscribed to by each institution.
 - Online Reference
 - Online Reference
 - Latest bibliographic, cinema forum (for exemple topics as: cinema and medicine ...)
 - Social Networks (Facebook, Twitter ...)

- Advertising and marketing through blogs from libraries, social networks, and via RSS.
 - Podcast.
 - Photographs.
- Provide support for teaching:
 - Keep teachers informed about the latest developments.
 - Provide teachers with easy access to many educational blogs in your area.
 - Facilitate channels for sharing information with other teachers.
- Become a reference for students:
 - Create a collaborative space between students.
 - Sharing information through blogs and social networks.

Findings

Once the objectives were clear, we had to find software that will allow us to realize our project: a virtual common workplace. As some managers allow mail to subscribe to an RSS feed, such as Google, try it. The result, though good, was not what we needed. There was the possible use of *Refworks Refshare*. Only the universities of Salamanca and Autònoma of Barcelona had *Refworks* subscription, so it was dismissed. At the end we decided on *Netvibes*. Why? Because it is very easy to create an account and can be accessed from any computer, because it allowed us to create a virtual space of common work and at the same time a common public space with information and, of course, allowed us to add RSS feeds and ranked so Thematic through tabs, so it is easy to query and monitor content.

The common virtual work space should be provided:

Flexibility: services platform that includes a wide range of resources and to provide structures to expand and add new types of resources, new users and new contexts.

Virtual community: designing and building a social network that works for and by the library community, based on the use of open source tools from the Web 2.0.

Efficiency: to offer a modular application that can be integrated with other existing structures, both academic and research to improve the effectiveness and efficiency of the institution.

Functional area of the Open Medical Library

To achieve the goals and mission of the project has developed a platform that serves this purpose. The platform chosen is *Netvibes*.

Netvibes allows all uses of Web 2.0 on one page like a personal virtual desktop. It is a website where you can easily integrate different applications or gadgets such as notes, calendar, address book, etc. something to make it more attractive as well as practical. In any case we can *Netvibes* syndicate content and widgets (or gadgets) in one page and thus facilitate the user in their search for relevant information.

We have created for it, why do so *Netvibes* allows two platforms. The first serves as a common virtual work space. It is a custom page, and tailored to our interests (fig.2). Each of the participating shares, he suggests, he says, and ads notifies relevant information, especially news from the sectors of health sciences that is our common interest. It's like our group's intranet.

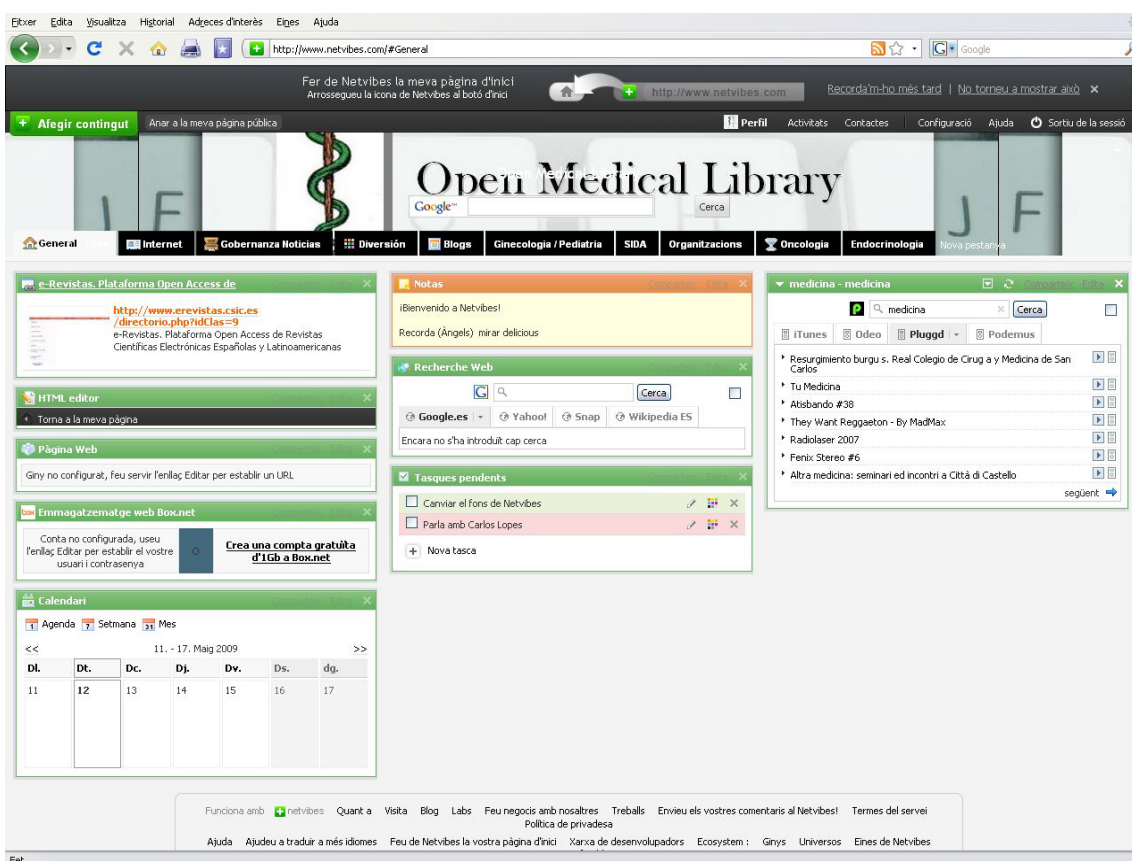


Fig 2: 2: Home platform group.

But the most interesting to the user, is the public platform, which is actually a portal service (fig. 3). The page is divided into tabs or tabs. Each tab is a syndicated content aggregator with different applications. *Netvibes* may contain various services, multi search engine, photos, videos, podcasts, access to blogs, etc. All the tools of Web 2.0 are accessible to the user. If the user has an account, for example, he can post their new *Delicious* bookmarks directly into your *Netvibes* account. You can follow discussions on specific topics by adding Twitter Search widget and share blogs, news, links through *Facebook* or *Twitter*.

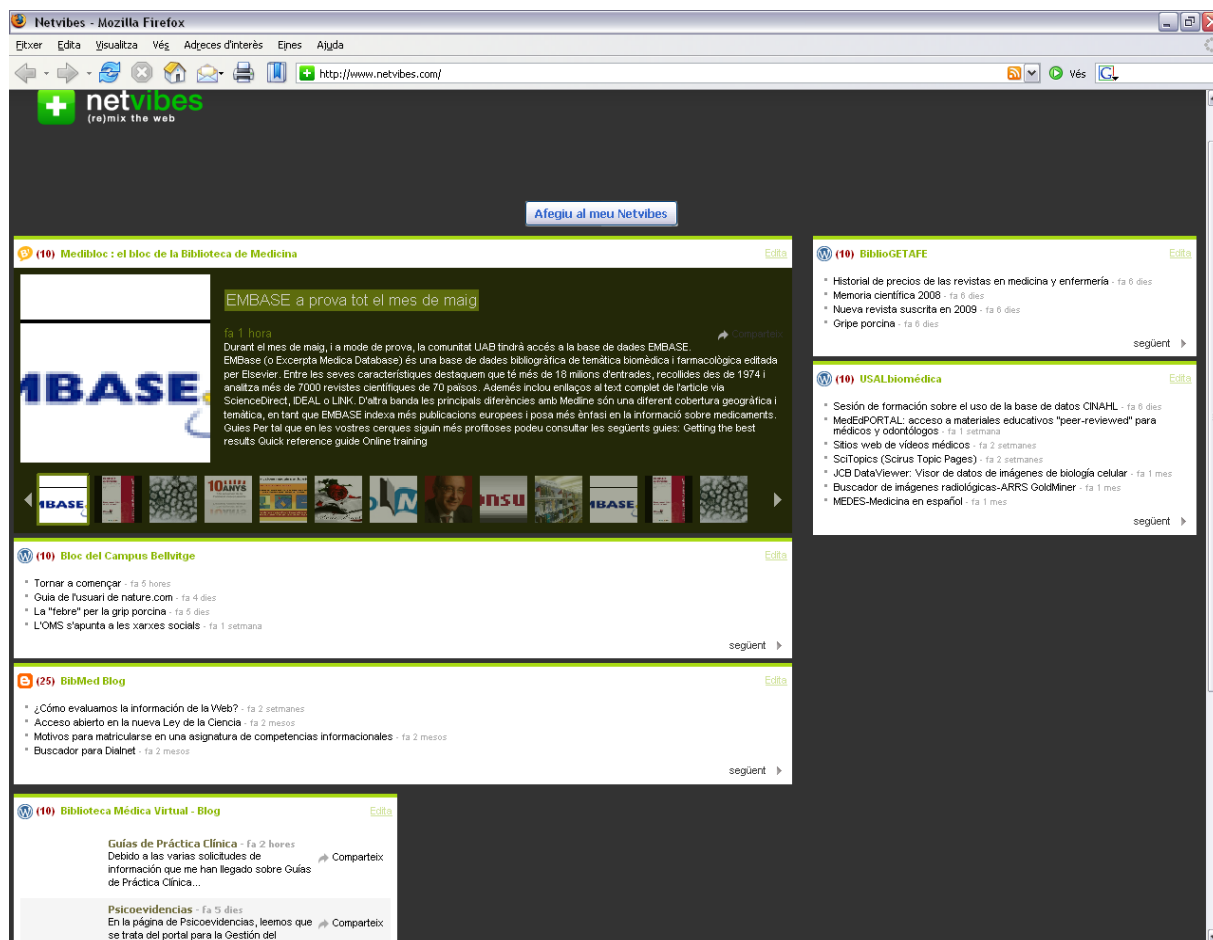


Fig.3: Homepage of the public platform for users

Conclusions

At the moment we are in a first phase of our project. We are shaping what is most useful and what we need to stay current and to respond to our users. Some institutions have not yet been implemented. Others like the Library of the Hospital of Torrevieja and the Biomedical Libraries of the University of Salamanca and have their first experiences with users and are very satisfactory. Although many users are not very familiar with using the new tools offered by Web 2.0, Library of Torrevieja Hospital began to provide short presentations to explain the usefulness of, for example, RSS and email alerts e applied to clinical practice. After the good reception of these lectures has been found that

use of the services created with RSS, as the summaries of magazines, rose significantly. This had impact on the increased use of other services outside the library of web 2.0 as the application of article. To know whether the number of consultations had increased with the blog syndication of content using the FeedBurner application, giving statistics of association, is how many users consult the blog from your RSS reader. Furthermore, to force the consultation, we opted to send the RSS excerpt instead of the full post.

Seen satisfactory results with the content syndication-journal abstracts through the RSS-Biomedical Libraries of the University of Salamanca and the Library's Hospital of Torrevieja, we believe that implementation of this new service will be very well received by the all our users. At the moment we have the ongoing project. We are to shape and customize our internal work, we see that utilities can be useful, we may share that information and what is the relevant information they actually need our users. From here we will outline the public page for end-users. When we have the platforms, internal and external users, each of the participating institutions will pilot test with real users to see the potential impact and to evaluate the acceptance that it can have on the large and disparate group we call "users". If the results of the pilot tests are successful, we believe it will be a good launch at the marketing of this new platform can really help its spread.

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